

Report No.:	TW2302123E
Applicant:	Eastern Times Technology Co.,Ltd
Product:	WIRED AND WIRELESS GAMING MOUSE
Model No.:	M690-PRO, DS-2945, M690W-PRO
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	
-77	

Terry long

Terry Tang

Manager

Dated:

March 07, 2023

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



# **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 17025:2017 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

# CAB identifier: CN0033

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.



Test Report Conclusion Content

1 0		
1.0	General Details	4
1.1	Test Lab Details	4
1.2	Applicant Details	4
1.3	Description of EUT	4
1.4	Submitted Sample	4
1.5	Test Duration	5
1.6	Test Uncertainty	
1.7	Test By	
2.0	List of Measurement Equipment	6
3.0	Technical Details	7
3.1	Summary of Test Results	7
3.2	Test Standards	7
4.0	EUT Modification	7
5.0	Power Line Conducted Emission Test	8
5.1	Schematics of the Test	8
5.2	Test Method and Test Procedure	8
5.3	Configuration of the EUT	8
5.4	EUT Operating Condition	9
5.5	Conducted Emission Limit	9
5.6	Test Result	9
6.0	Radiated Emission test	12
6.1	Test Method and Test Procedure	12
6.2	Configuration of the EUT	13
6.3	EUT Operation Condition	13
6.4	Radiated Emission Limit	13
6.5	Test Result	15
7.0	Band Edge	23
7.1	Test Method and Test Procedure	23
7.2	Radiated Test Setup	23
7.3	Configuration of the EUT	23
7.4	EUT Operating Condition	23
7.5	Band Edge Limit	23
7.6	Band Edge Test Result	24
8.0	Antenna Requirement	28
9.0	20dB bandwidth measurement	29
10.0	FCC ID Label	32
11.0	Photo of Test Setup and EUT View	33

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



### 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.,LtdAddress:Building D, Nan An Industrial Area, Youganpu Village, Fenggang Town, Dongguan City,<br/>Guangdong, China.Telephone:--

Fax:

--

#### 1.3 Description of EUT

Product:	WIRED AND WIRELESS GAMING 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:	M690-PRO
Additional Model Name	DS-2945, M690W-PRO
Rating:	DC5V, 260mA or DC3.7V, 120mA
Battery	DC3.7V, 700mAh Li-ion battery
Modulation Type:	GFSK
Operation Frequency:	2404-2480MHz
Channel Number:	16
Channel List (Unit: MHz):	2404, 2426, 2441, 2463, 2407, 2422, 2445, 2466, 2414, 2436, 2459, 2473,
	2419, 2439, 2453, 2480
Hardware Version:	2945-C1 TX V1
Software Version:	4666
Serial No.:	RDM690-PRO22102000512
Antenna Designation	PCB antenna with gain 1.2dBi maximum (Get from the antenna Specification)

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.



- 1.4 Submitted Sample: 2 Samples
- 1.5 Test Duration 2023-02-15 to 2023-03-07
- 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

Andy -xing

The sample tested by

Print Name: Andy Xing

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.



2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2022-07-15	2023-07-14
LISN	R&S	EZH3-Z5	100294	2022-07-18	2023-07-17
LISN	R&S	EZH3-Z5	100253	2022-07-18	2023-07-17
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2022-07-18	2023-07-17
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2022-07-15	2023-07-14
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	2024-07-17
Power meter	Anritsu	ML2487A	6K00003613	2022-07-18	2023-07-17
Power sensor	Anritsu	MA2491A	32263	2022-07-18	2023-07-17
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	2022-07-15	2023-07-14
EMI Test Receiver	RS	ESCS 30	834115/006	2022-07-15	2023-07-14
Spectrum	HP/Agilent	E4407B	MY50441392	2022-07-15	2023-07-14
Spectrum	RS	FSP	1164.4391.38	2022-07-15	2023-07-14
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2022-07-15	2023-07-14
RF Cable	Zhengdi	7m		2022-07-15	2023-07-14
Pre-Amplifier	Schwarebeck	BBV9743	#218	2022-07-15	2023-07-14
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2022-07-15	2023-07-14
LISN	SCHAFFNER	NNB42	00012	2022-08-18	2023-07-17
ESPI Test Receiver	R&S	ESPI 3	100379	2022-07-15	2023-07-14
LISN	R&S	EZH3-Z5	100294	2022-07-18	2023-07-17

#### 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

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

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.



#### **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

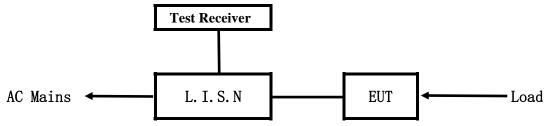
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . 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.



### 5. Power Line Conducted Emission Test

5.1 Schematics of the test

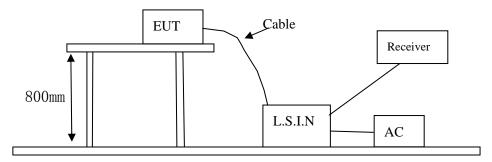


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 500hm/50uH as specified by section 5.1 of ANSI C63.10–2013. Test Voltage: 120V~, 60Hz

Block diagram of Test setup



### 5.3 Configuration of the EUT

The EUT was configured according to ANSI C63.10-2013. 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
WIRED AND WIRELESS	Eastern Times Technology	M690-PRO, DS-2945,	TUVDS-2945C
GAMING MOUSE	Co.,Ltd	M690W-PRO	10 v DS-2945C

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.



B. Internal Device

2.	1110011141 2001100			
	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 C63.10-2013

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		
$5.00~\sim~30.00$	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

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.

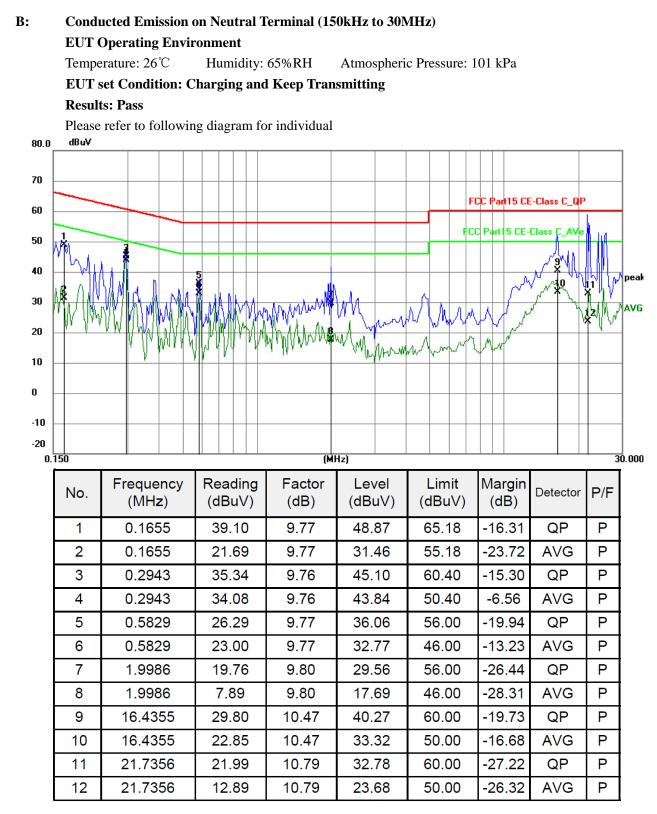
In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



		icted Emission		ninal (150k)	Hz to 30MH	Z)			
		<b>)perating Envi</b> rature: 26℃	Humidity:	65%RH	Atmospheri	c Pressure: 1	01 kPa		
	-	et Condition: (	-		-	e i ressure. I	UI KI a		
		s: Pass	Juli ging und	Theop IIun	Sinteing				
		refer to followi	ng diagram fo	r individual					
	dBu¥								
70									
60 -	_					F	C Part15 CE	E-Class C_QP	
50 ¥ 4						FC	Part15 CE-	Class C_AVe	
V I	10.		5					. Ju	Α
40 M	LA A		×	1	L.A.	<u> </u>	- Jan		( the be
30 籠	<u>vi v v</u>	WINA A MA		AMANNA™ <b>™</b>	W/M	MAA	Aut	/ <b>*</b>	A AN
20	ſW	VYVWWW	MANNAN	WhatAloW	M. MMM	M	Min	•	YW
			44441	, Mit Iday I	" "WWW	m*~~~	Y M		
10									
0									
-10									
-20									
0.150	)			(M	Hz)				30.0
1	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
	1	0.1500	40.39	9.79	50.18	66.00	-15.82	QP	Р
	2	0.1500	21.61	9.79	31.40	56.00	-24.60	AVG	Р
	3	0.2943	37.12	9.76	46.88	60.40	-13.52	QP	Р
	4	0.2943	35.85	9.76	45.61	50.40	-4.79	AVG	Р
	5	0.5829	29.49	9.77	39.26	56.00	-16.74	QP	Р
	6	0.5829	26.27	9.77	36.04	46.00	-9.96	AVG	Р
	7	2.0102	22.97	9.80	32.77	56.00	-23.23	QP	P
	8	2.0102	11.27	9.80	21.07	46.00	-24.93	AVG	P
	9	4.7511	22.26	9.92	32.18	56.00	-23.82	QP	P
	10	4.7511	7.57	9.92	17.49	46.00	-28.51	AVG	P
	11	16.8450	30.71	10.49	41.20	60.00	-18.80	QP	P
-	12	16.8450	21.48	10.49	31.97	50.00	-18.03		P
	14	10.0400	21.70	10.40	01.07	00.00	10.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	L '

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





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.

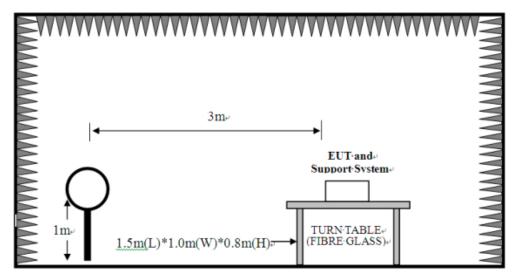


### 6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- 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

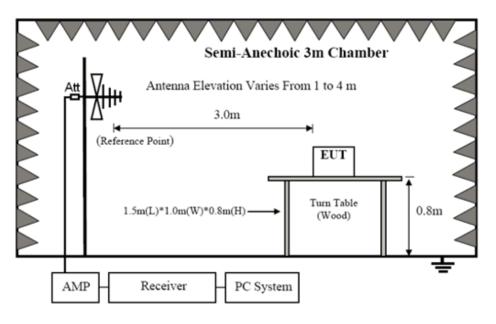


For radiated emissions from 30MHz to1GHz

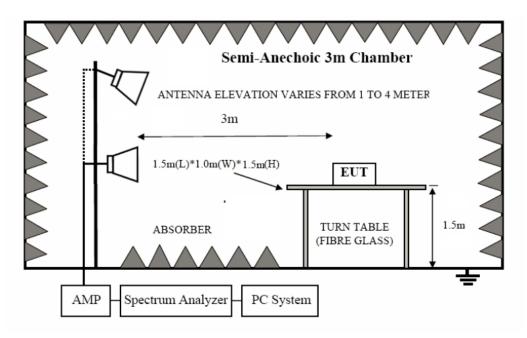
The report refers only to the sample tested and does not apply to the bulk.

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.





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.



### 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 S	trength of Harmo	nics (3m)
(MHz)	mV/m	dBu	V/m	uV/m	dBu	V/m
2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)
	1 (15 15					

### Note: 1. RF Field Strength (dBuV) = $20 \log RF$ 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
216-960	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.

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.



#### 6.5 **Test result**

#### **Fundamental & Harmonics Radiated Emission Data** Α

Please refer to the following test plots for details: Low Channel-2404MHz

#### Horizontal

1

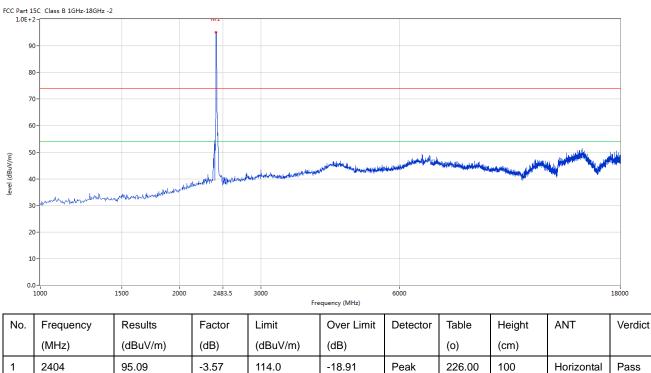
1\*

2404

86.31

-3.57

94.0



-7.69

AV

226.00

226.00

100

Horizontal

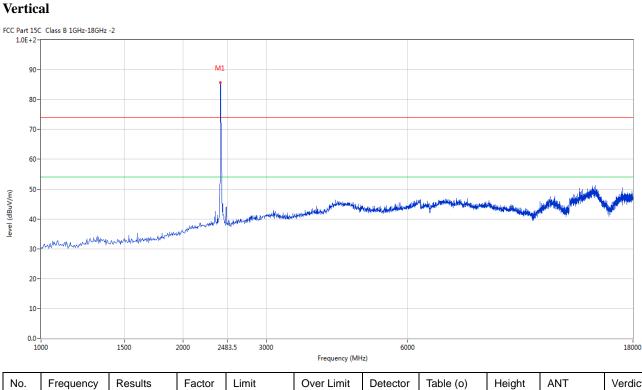
Horizontal

Pass

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.





No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2404	85.60	-3.57	114.0	-28.40	Peak	6.00	100	Vertical	Pass

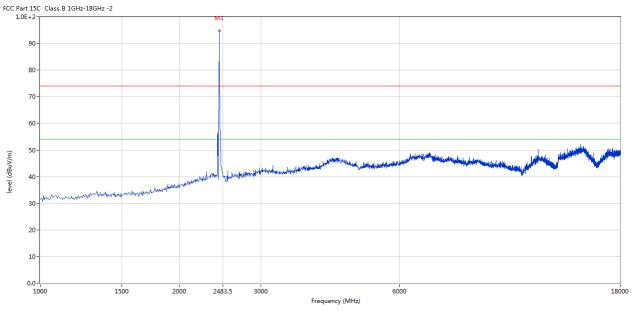
The report refers only to the sample tested and does not apply to the bulk.

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.



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

#### Horizontal

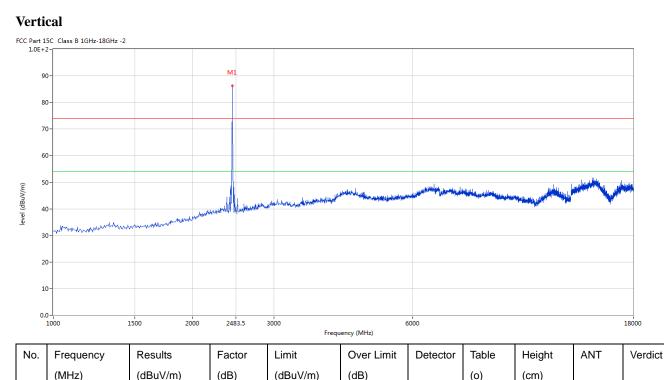


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	94.70	-3.57	114.0	-19.30	Peak	213.00	100	Horizontal	Pass
1*	2441	85.63	-3.57	94.0	-8.37	AV	213.00	100	Horizontal	Pass

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.





360.00

100

Vertical

Pass

Peak

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

86.29

-3.57

114.0

-27.71

2441

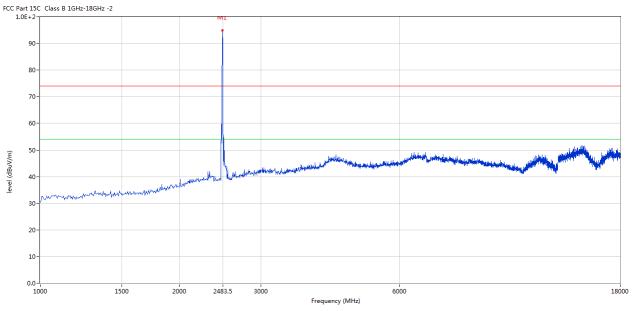
1

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.



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

#### Horizontal

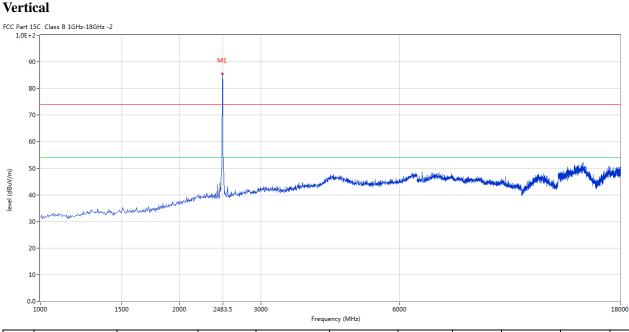


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	95.06	-3.57	114.0	-18.94	Peak	224.00	100	Horizontal	Pass
1*	2480	84.95	-3.57	94.0	-9.05	AV	224.00	100	Horizontal	Pass

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.





٨	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	I	2480	85.87	-3.57	114.0	-28.13	Peak	1.00	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.

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.



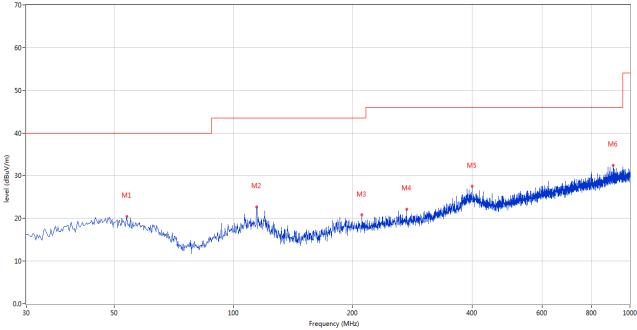
## B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

### Results: Pass

Please refer to following diagram for individual

FCC\_FCC Part 15C Class B 30MHz-1GHz



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	53.759	20.47	-11.53	40.0	-19.53	Peak	47.00	100	Horizontal	Pass
2	114.369	22.63	-14.32	43.5	-20.87	Peak	101.00	200	Horizontal	Pass
3	210.860	20.77	-13.64	43.5	-22.73	Peak	141.00	100	Horizontal	Pass
4	273.167	22.18	-11.65	46.0	-23.82	Peak	67.00	200	Horizontal	Pass
5	399.478	27.49	-8.58	46.0	-18.51	Peak	198.00	100	Horizontal	Pass
6	905.449	32.40	-1.80	46.0	-13.60	Peak	215.00	100	Horizontal	Pass

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.



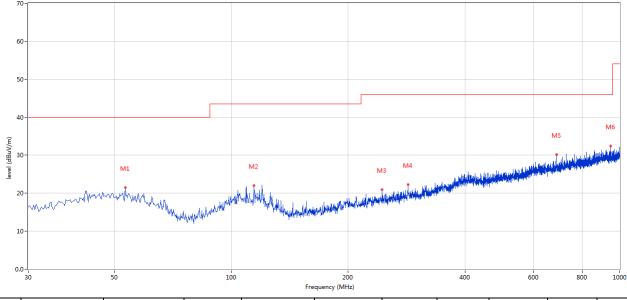
### Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

#### **Results:** Pass

Please refer to following diagram for individual

FCC\_FCC Part 15C Class B 30MHz-1GHz



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	53.274	21.53	-11.51	40.0	-18.47	Peak	230.00	200	Vertical	Pass
2	114.369	22.07	-14.32	43.5	-21.43	Peak	315.00	100	Vertical	Pass
3	244.559	20.96	-12.24	46.0	-25.04	Peak	59.00	100	Vertical	Pass
4	285.289	22.30	-11.32	46.0	-23.70	Peak	360.00	100	Vertical	Pass
5	687.738	30.20	-4.28	46.0	-15.80	Peak	277.00	100	Vertical	Pass
6	948.603	32.40	-1.51	46.0	-13.60	Peak	261.00	200	Vertical	Pass

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.

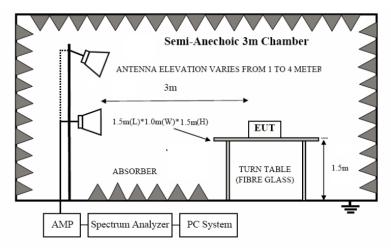


### 7. Band Edge

### 7.1 Test Method and test Procedure:

- 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.

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.



#### 7.6 Test Result

]	Product:	WIRED A		LESS GAMI	NG	Polarity		I	Horizontal	
			MOUS							
	Mode	Ke	eping Trar			est Voltag			DC3.7V	
	mperature		24 deg.			Humidity			56% RH	
Te	est Result:		Pass							
1.0E+ 9 8 7 6			11 I. M. T. M.				M4	M5 2 2		
4	Ang Low and Product of Many Street and Andrews		ومعلوم المعادية والمعالي والموارك والمعادر	PT <sup>(</sup> PANATAK MUNUKI WUM	nin di Kanalan ya ini ili ini ili di ka	ak na list o tra contra fatalla	dihimikul ku			_
3 2 1 0.	Ang Low and Product of Many Street and Andrews		aliant <mark>da</mark> n an	Fr Fr	equency (MHz)	al na lata se anni da Ma				2410
3 2 1 0.		Results	Factor	Fr Limit	equency (MHz)	Detector	Table	Height	ANT	
3 2 1 0.	0	Results (dBuV/m)	Factor (dB)			Detector	Table (o)	Height (cm)		
3 2 1 0. <b>NO.</b>	0- 0- 2350 Frequency			Limit	Over Limit	Detector Peak		_		
3 2 1 0. No.	0- 0- 2350 Frequency (MHz)	(dBuV/m)	(dB)	Limit (dBuV/m)	Over Limit (dB)		(o)	(cm)	ANT	Verdi
3 2 1 0. No.	0- 0- 2350 Frequency (MHz) 2403.972	(dBuV/m) 95.05	(dB) -3.57	Limit (dBuV/m) 74.0	Over Limit (dB) 21.05	Peak	(o) 219.00	(cm) 100	ANT Horizontal	Verdi N/A
3 2 1 0. No. 1 2 2**	<ul> <li>Binary and a second seco</li></ul>	(dBuV/m) 95.05 70.36	(dB) -3.57 -3.57	Limit (dBuV/m) 74.0 74.0	Over Limit (dB) 21.05 -3.64	Peak Peak	(o) 219.00 211.00	(cm) 100 100	ANT Horizontal Horizontal	Verdi N/A Pass
3 2 1 0. No. 1 2 2** 3	Image: state of the s	(dBuV/m) 95.05 70.36 50.34	(dB) -3.57 -3.57 -3.57	Limit (dBuV/m) 74.0 74.0 54.0	Over Limit           (dB)           21.05           -3.64           -3.66	Peak Peak AV	(o) 219.00 211.00 211.00	(cm) 100 100 100	ANT Horizontal Horizontal Horizontal	Verdie N/A Pass Pass
3 2 1 0. No. 1 2 <sup>**</sup> 3 4	Frequency (MHz) 2403.972 2399.998 2399.010	(dBuV/m) 95.05 70.36 50.34 50.46	(dB) -3.57 -3.57 -3.57 -3.53	Limit (dBuV/m) 74.0 74.0 54.0 74.0	Over Limit           (dB)           21.05           -3.64           -3.66           -23.54	Peak Peak AV Peak	(0) 219.00 211.00 211.00 2.00	(cm) 100 100 100 100	ANT Horizontal Horizontal Horizontal Horizontal	Verdie N/A Pass Pass Pass
3 2 1 0.	0-         0-           0-         <	(dBuV/m) 95.05 70.36 50.34 50.46 63.06	(dB) -3.57 -3.57 -3.57 -3.53 -3.55	Limit (dBuV/m) 74.0 74.0 54.0 74.0 74.0 74.0	Over Limit           (dB)           21.05           -3.64           -3.66           -23.54           -10.94	Peak Peak AV Peak Peak	(o) 219.00 211.00 211.00 2.00 232.00	(cm) 100 100 100 100 100	ANT Horizontal Horizontal Horizontal Horizontal Horizontal	Verdia N/A Pass Pass Pass Pass

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



]	Product:	WIRED AI	ND WIREI MOUS	LESS GAMI SE	NG	Detector		١	Vertical	
	Mode	Ke	eping Tran	smitting	Te	st Voltage		Ľ	DC3.7V	
Te	mperature		24 deg.	C,	H	Iumidity		5	6% RH	
Te	est Result:		Pass							
C Part 1 1.0E+	15C Class B 1GHz-18GHz	: -2								
0	90-								M1	
,									10 M	
8	30-									
7	70-									
6	50 -						M4	M5	1	Million.
, 5	50-					er les essetuatoriadorial				
			a sha filat	an i	an a dahiri babili			M2 •		11
	10 J J J J J J J J J J J J J J J J J J J	e e construir e la diadhe								
4	10-11						A, M. M. WYATATATATA	NAME No. 4.		
	10 - <b>11. 10. 10. 10. 10. 10. 10. 10. 10.</b> 30 -	n dan da badan. Kanada dagi bal bahar			ALCO <sub>N</sub> CALA <u>N</u> A, ANNA ANNA ANNA ANNA ANNA ANNA ANNA	LL ( CLY DUANN DALDINAN DU, F	K WAYA MANYA MANANA	WANT II. II		
3		ndan kelonda dalam yang belandar			alway, tadayi, UKAYA (TAYA) TAYA	liyayan ekanakan kara	i mili kina kurana k	WAYNAN A		
3	30-			ANA AMANA ANA ANA ANA ANA ANA ANA ANA AN	ANTROCESCO A CALENDAR A	LY OLY DUR HONOLOGY AND UT	n waara ahaa ka k	NNN ALTON		
3 2 1	20			NY ANG ANA ANA ANA ANA ANG ANG ANG ANG ANG	Allon, Kalik di Alika di Angara. Ali	LI ( OS DORANO KOKO KOKO KOKO K		NNN MARINA .		
3 2 1	20-				Frequency (MHz)					24
3 2 1 0.	20	Results	Factor	Limit		Detector	Table	Height	ANT	1
3 2 1 0.	20	Results (dBuV/m)			Frequency (MHz)			Height (cm)	ANT	1
3 2 1 0. <b>NO.</b>	20- 20- 10- 2350 Frequency		Factor	Limit	Frequency (MHz)		Table	_	ANT	1
3 2 1 0. No.	00- 20- .0- .2350 Frequency (MHz)	(dBuV/m)	Factor (dB)	Limit (dBuV/m)	Frequency (MHz) Over Limit (dB)	Detector	Table (o)	(cm)		Verdi
3 2 1 0. No.	00- 00- 2350 Frequency (MHz) 2403.642	(dBuV/m) 85.49	Factor (dB) -3.57	Limit (dBuV/m) 74.0	Frequency (MHz) Over Limit (dB) 11.49	Detector Peak	Table (o) 10.00	(cm) 100	Vertical	Verdi N/A
3 2 1 0. No. 1 2 2**	30-           20-           10-           2350           Frequency           (MHz)           2403.642           2400.057	(dBuV/m) 85.49 61.21	Factor (dB) -3.57 -3.57	Limit (dBuV/m) 74.0 74.0	Frequency (MHz) Over Limit (dB) 11.49 -12.79	Detector Peak Peak	Table (o) 10.00 141.00	(cm) 100 100	Vertical Vertical	Verdi N/A Pass Pass
3 2 1 0. No. 1 2 2** 3	30-           20-           20-           2350           Frequency (MHz)           2403.642           2400.057           2400.057	(dBuV/m) 85.49 61.21 41.20	Factor (dB) -3.57 -3.57 -3.57	Limit (dBuV/m) 74.0 74.0 54.0	Frequency (MHz) Over Limit (dB) 11.49 -12.79 -12.80	Detector Peak Peak AV	Table (o) 10.00 141.00 141.00	(cm) 100 100 100	Vertical Vertical Vertical	Verdi N/A Pass
3 2 1 0. No. 1 2 2** 3 4	30-           20-           10-           2350           Frequency           (MHz)           2403.642           2400.057           2390.100	(dBuV/m) 85.49 61.21 41.20 46.46	Factor (dB) -3.57 -3.57 -3.57 -3.53	Limit (dBuV/m) 74.0 74.0 54.0 74.0	Frequency (MHz) Over Limit (dB) 11.49 -12.79 -12.80 -27.54	Detector Peak Peak AV Peak	Table (o) 10.00 141.00 141.00 130.00	(cm) 100 100 100 100	Vertical Vertical Vertical Vertical	Verdi N/A Pass Pass Pass
3	30-           20-           10-           2350           Frequency           (MHz)           2403.642           2400.057           2390.100           2394.644	(dBuV/m) 85.49 61.21 41.20 46.46 54.67	Factor (dB) -3.57 -3.57 -3.57 -3.57 -3.53 -3.55	Limit (dBuV/m) 74.0 74.0 54.0 74.0 74.0 74.0	Frequency (MHz) Over Limit (dB) 11.49 -12.79 -12.80 -27.54 -19.33	Detector Peak Peak AV Peak Peak	Table (o) 10.00 141.00 141.00 130.00 10.00	(cm) 100 100 100 100 100	Vertical Vertical Vertical Vertical Vertical	Pass Pass Pass Pass

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



]	Product:	WIRED A	AND WIR MOU	ELESS GAM JSE	1ING	Pola	arity		Horizonta	ıl
	Mode	K	eeping Tr	ansmitting		Test V	oltage		DC3.7V	
Te	emperature		24 de			Hum			56% RH	
	est Result:		Pas			-	-			
CC Part 1 1.0E+	15C Class B 1GHz-18GHz	-2								
8	30	a a tal dalah d	ANA TATI	( My hy	a la de de de de de de de	hlilitiin	hilatany a s			
level (dBuV/m)	50			M2						
5 (dpn//m) 16vei (dpn//m) 2	50 - 40 - 30 -			M2						
(m//nnp) 4 3 2 1	50 - 11 - 11 - 11 - 11 - 11 - 11 - 11 -			M2						
(m//ulabolic level (dBu//ulabolic 3 2 2 1 0	50			N22 2483.	5 Frequency (MHz)					250
(m//ulabolic level (dBu//ulabolic 3 2 2 1 0	50 - 11 - 11 - 11 - 11 - 11 - 11 - 11 -	Results	Factor	2483. Limit		Detector	Table	Height	ANT	250 Verdic
(w//ngp) 4 3 2 1 0	50 - 11 - 11 - 11 - 11 - 11 - 11 - 11 -	Results (dBuV/m)	Factor (dB)	1	Frequency (MHz)	Detector	Table	Height (cm)	ANT	
(w//ngp) 4 3 2 1 0	50			Limit	Frequency (MHz)	Detector		-	ANT	
(u/Anno) 4 3 2 1 0 NO.	50 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	(dBuV/m)	(dB)	Limit (dBuV/m)	Frequency (MHz) Over Limit (dB)		(0)	(cm)		Verdic

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



Product: Mode		WIRED A	G D	Detector Test Voltage		Vertical					
		Keeping Transmitting				Tes	DC3.7V				
Te	emperature	24 deg. C,				Humidity		56% RH			
	est Result:	Pass									
CC Part 1 1.0E+	15C Class B 1GHz-18GHz	-2									
8	90		M								
level (dBuV/m) 3	50 - 50 - 40 - 30 - 20 -			M2 4							
(@///ŋgp) 4 3 2 1	50 - 40 - 30 -			2483.5 Freq	Juency (MHz)					2500	
(@//ngp) 4 3 2 1	50 - 40 - 20 - 10 - 10 -	Results	Factor	Freq	Juency (MHz)	Detector	Table	Height	ANT		
(w//ngg) ana 3 2 1 0.	50	Results (dBuV/m)	Factor (dB)	Freq Limit		Detector	Table (o)	Height (cm)	ANT		
(w//ngg) ana 3 2 1 0.	50 - 40 - 20 - 10 - 10 - 2470 Frequency			Freq Limit (dBuV/m)	Over Limit	Detector		-	ANT		
(u()) (u	50 - 40 - 20 - 10 - 2470 Frequency (MHz)	(dBuV/m)	(dB)	Limit (dBuV/m) 74.0	Over Limit (dB)		(0)	(cm)		2500 Verdic N/A Pass	

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



#### 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 1.2dBi Max. It fulfills the requirement of this section. Test Result: Pass

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.



	WIRED AND WIRELESS GAMING MOUSE			Test Mode:		Keep transmitting			
Mode	Keeping Transmitting				Test Voltage		DC3.7V		
Temperature	24 deg. C, Pass			Humidity Detector		56% RH			
Test Result:							РК		
20dB Bandwidth	2.776MHz								
Ref Lvl 10 dBm	Marke ndB BW	r 1 [T1 ndB] 20.00 dB 2.77555110 MHz	RE VE SW	BW 3	100 kH 300 kH 5 ms	Hz	F Att nit	20 dB dBn	n
				M	▼1 ndB BW ⊽ <sub>T1</sub>	[T1]	-4 2.40398 2.77555	.00 dB 110 MHz	A
-10 -20 <b>IVIEW</b>	A A A A A A A A A A A A A A A A A A A				v ⊽ <sub>T</sub> v		2.40267 -24 2.40544	234 GHz	111
- 30 - 40							Vilo	Juppy	-
- 5 0									-
-60									-
-70									-
- 8 0									-
-90 Center 2.	404 GHz	500	500 kHz/				Span 5 MHz		

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



Product:	WIRED AND WIRELESS GAMING MOUSE Keeping Transmitting 24 deg. C, Pass			est Mode:	Keep transmitting DC3.7V 56% RH PK		
Mode				est Voltage			
Temperature				Humidity			
Test Result:				Detector			
20dB Bandwidth	2.134MHz						
<b>A</b>	Marker	1 [T1 ndB]	RBW	100 kHz	RF Att	20 dB	
Ref Lvl	ndB	20.00 dB	VBW	300 kHz			
10 dBm	BW	2.13426854 MHz	SWT	5 ms	Unit	dBm	
10				<b>V</b> 1 [7	- [1]	3.99 dBm	
					2.4410	A	
0			1	ndB	2	0.00 dB	
		m m	$\land$	BW	2.1342	6854 MHz	
-10			your		<u>[T1]</u> -2	3.92 dBm	
		ک البر ا		V. ▼ <sub>T2</sub>	2.4399		
-20				Um	[11] -2	4.12 dBm 9719 GHz	
1MAX	لآسر			v t	h 2.1120	1MA	
-30				1	٩	<u> </u> ,	
~					M		
	"VV"				Januar		
-40						- V-0 1	
-50							
-60							
-70							
- 80							
-90							
Center 2	.441 GHz	500	kHz/		Sp	an 5 MHz	
Date: 3.	MAR.2023 10:	14:55					

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



Product:	WIRED AND WIRELESS GAMING MOUSE Keeping Transmitting 24 deg. C, Pass			est Mode:	Keep transmitting		
Mode				est Voltage	DC3.7V 56% RH PK		
Temperature				Iumidity			
Test Result:				Detector			
20dB Bandwidth	2.144MHz						
		1 [T1 ndB]	RBW	100 kHz		20 dB	
Ref Lvl 10 dBm	ndB BW 2	20.00 dB 2.14428858 MHz	VBW SWT	300 kHz 5 ms	Unit	dBm	
10						<b>]</b>	
				▼1 [7	2.48001	4.38 dBm 1503 GHz	
0				ndB	20	0.00 dB	
-10		$ \land \land$	$\sim$	BW V <sub>T1</sub>	2.14428 T1] -2	858 MHz 4.06 dBm	
				<b>▼</b> <sub>T</sub> 2 [	2.47896 [T1] -24	293 GHz 4.48 dBm	
-20	T				2 <b>2.4811</b>	)721 GHz	
1MAX	j j	·		~~~~ V	<u>р.</u>	1MA	
-30						~	
-40	m				- Ulum		
Mun					v	200M	
-50							
-60							
7.0							
-70							
- 80							
-90							
Center 2	.48 GHz	500	kHz/		Spa	an 5 MHz	

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 32 of 41

### 10.0 FCC ID Label

### FCC ID: TUVDS-2945C

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:**

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.



#### 11.0 Photo of testing

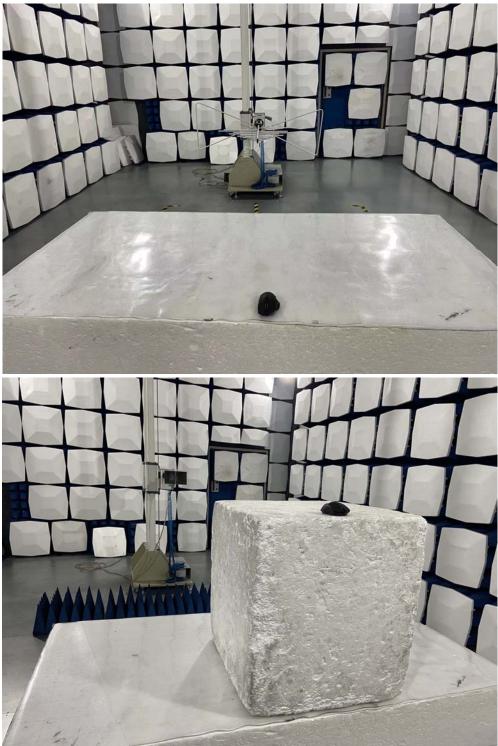
11.1 Conducted test View--



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



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.



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.



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.



Outside View-Mouse

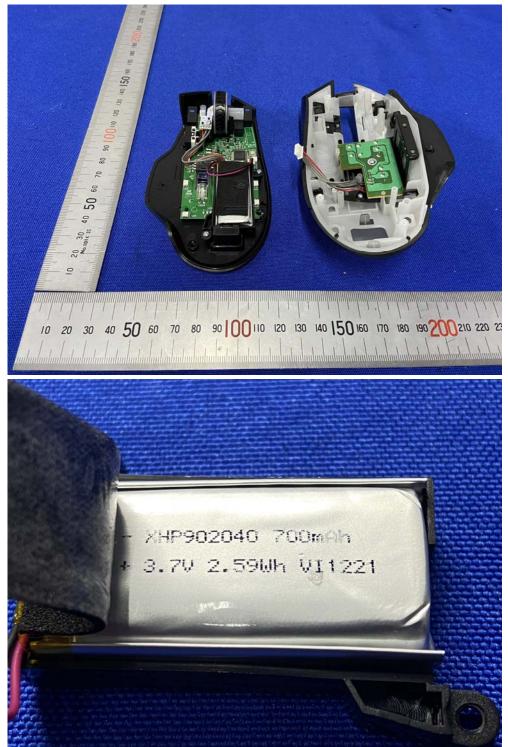


The report refers only to the sample tested and does not apply to the bulk.

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.



Inside View-Mouse

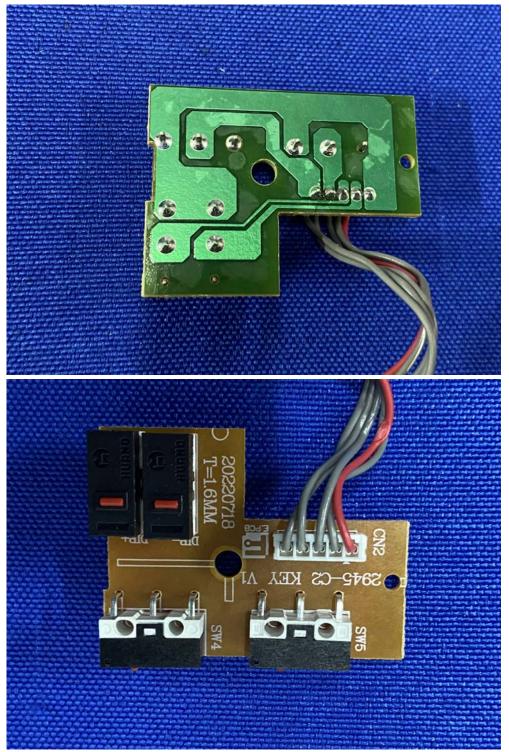


The report refers only to the sample tested and does not apply to the bulk.

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.



Inside View-Mouse

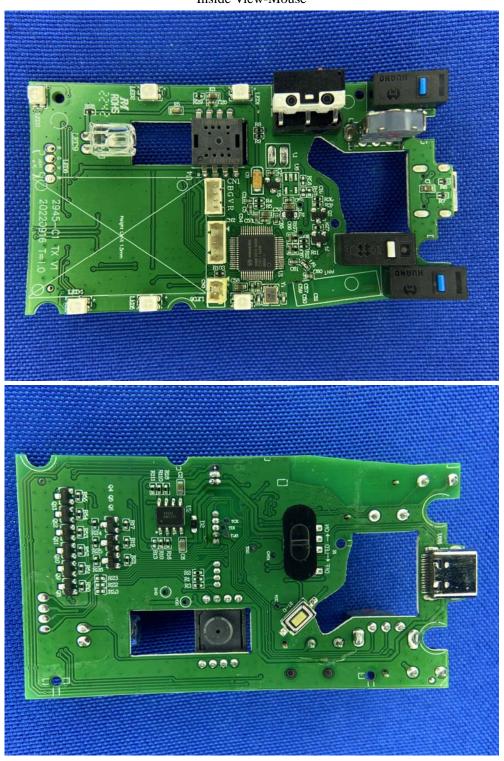


The report refers only to the sample tested and does not apply to the bulk.

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



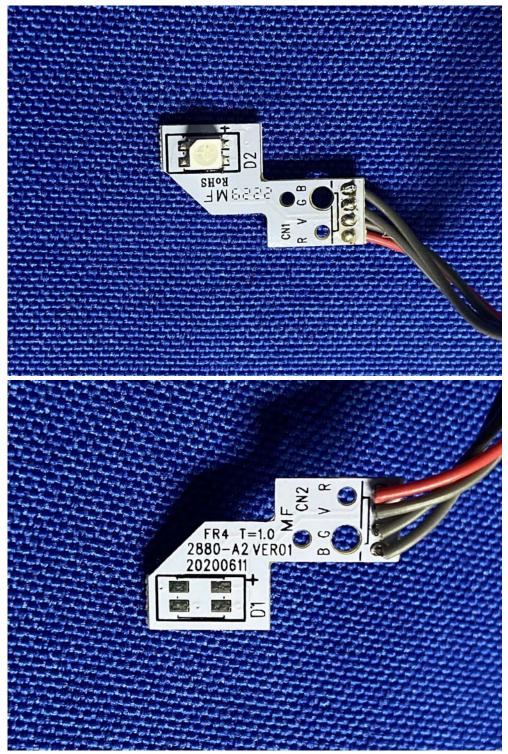
Inside View-Mouse



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



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