



Report No.: TW2203095E

File reference No.: 2022-03-30

Applicant: Eastern Times Technology Co.,Ltd

Product: WIRELESS OPTICAL MOUSE

Model No.: TG066, DS-2472, PC066D, 066, JS066, X-08

Trademark: GOFREETECH

Test Standards: FCC Part 15.249

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10 & FCC Part 15 Subpart C,

Paragraph 15.249 regulations for the evaluation of

electromagnetic compatibility

Approved By

- -

Terry Tang

Manager

Dated: March 30, 2022

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

#### SHENZHEN TIMEWAY TESTING LABORATORIES

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

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

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## **Special Statement:**

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

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

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

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

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

#### FCC-Registration No.: 744189

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

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

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

#### A2LA (Certification Number: 5013.01)

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

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## Test Report Conclusion

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11.0

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Photo of Test Setup and EUT View.

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#### 1.0 General Details

#### 1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

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

Village, Nanshan District, Shenzhen, China

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

Site on File with the Federal Communications Commission – United Sates

Registration Number: 744189 For 3m Anechoic Chamber

#### 1.2 Applicant Details

Applicant: Eastern Times Technology Co.,Ltd

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

Guangdong, China.

Telephone: --Fax: --

#### 1.3 Description of EUT

Product: WIRELESS OPTICAL MOUSE

Manufacturer: Eastern Times Technology Co.,Ltd

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

Dongguan City, Guangdong, China.

Trademark: GOFREETECH

Model Number: TG066

Additional Model Name DS-2472, PC066D, 066, JS066, X-08

Rating: DC1.5V, 8mA
Battery 1pc AA battery

Modulation Type: GFSK

Operation Frequency: 2403-2480MHz

Channel Number: 16

Channel List (unit: MHz): 2403, 2424, 2441, 2461, 2414, 2435, 2450, 2470, 2409, 2429, 2455, 2475,

2419, 2445, 2465, 2480

Hardware Version: 2741-B V1
Software Version: B7EA.07
Serial No.: 22A11

Antenna Designation PCB antenna with gain -1.85dBi Max (Declared by the Manufacturer)

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1.4 Submitted Sample: 1 Sample

1.5 Test Duration 2022-03-07 to 2022-03-30

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty =6.0dB

Occupied Channel Bandwidth Uncertainty = 5%

Conducted Emissions Uncertainty =3.6dB

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

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

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2.0 Test Equipment									
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date				
ESPI Test Receiver	R&S	ESPI 3	100379	2021-06-18	2022-06-17				
LISN	R&S	EZH3-Z5	100294	2021-06-18	2022-06-17				
LISN	R&S	EZH3-Z5	100253	2021-06-18	2022-06-17				
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2021-06-18	2022-06-17				
Loop Antenna	EMCO	6507	00078608 2021-06-18		2024-06-17				
Spectrum	R&S	FSIQ26	100292	2021-06-18	2022-06-17				
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2021-07-02	2024-07-01				
Horn Antenna	R&S	BBHA 9120D	9120D-631	2021-07-02	2024-07-01				
Power meter	Anritsu	ML2487A	6K00003613	2021-06-18	2022-06-17				
Power sensor	Anritsu	MA2491A	32263	2021-06-18	2022-06-17				
Bilog Antenna	Bilog Antenna Schwarebeck		9163/340	2021-07-02	2024-07-01				
9*6*6 Anechoic			N/A	2021-07-02	2022-07-01				
EMI Test Receiver	RS	ESVB	826156/011	2021-06-18	2022-06-17				
EMI Test Receiver	RS	ESH3	860904/006	2021-06-18	2022-06-17				
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2021-06-18	2022-06-17				
Spectrum	HP/Agilent	E4407B	MY50441392	2021-06-18	2022-06-17				
Spectrum	RS	FSP	1164.4391.38	2022-01-15	2023-01-14				
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2021-06-18	2022-06-17				
RF Cable	Zhengdi	7m		2021-06-18	2022-06-17				
RF Switch	EM	EMSW18	060391	2021-06-18	2022-06-17				
Pre-Amplifier	Schwarebeck	BBV9743	#218	2021-06-18	2022-06-17				
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2021-06-18	2022-06-17				
LISN	SCHAFFNER	NNB42	00012	2022-01-05	2023-01-04				

#### 2.2 Automation Test Software

#### For Conducted Emission Test

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

#### For Radiated Emissions

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

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#### 3.0 Technical Details

#### 3.1 Summary of test results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph 15.207	Conducted Emission Test	N/A	N/A
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Fundamental	Pass	Complies
FCC Part 15, Paragraph 15.209 and RSS-210	Radiated Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	Pass	Complies

#### 3.2 Test Standards

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

#### 4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

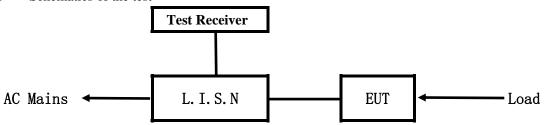
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#### 5. Power Line Conducted Emission Test

#### 5.1 Schematics of the test

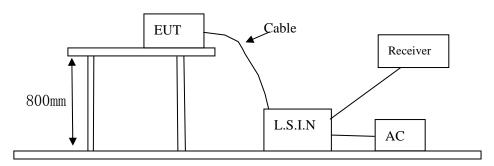


**EUT: Equipment Under Test** 

#### 5.2 Test Method and test Procedure

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

#### Block diagram of Test setup



#### 5.3 Configuration of The EUT

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

16 channels are provided to the EUT

#### A. EUT

Device	Manufacturer	Model	FCC ID
WIRELESS OPTICAL	Eastern Times Technology	TG066, DS-2472, PC066D,	TIMDC 2472
MOUSE	Co.,Ltd	066, JS066, X-08	TUVDS-2472

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#### 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

<u> </u>					
Frequency	Limits (dB µ V)				
(MHz)	Quasi-peak Level	Average Level			
0.15 ~ 0.50	66.0~56.0*	56.0~46.0*			
$0.50 \sim 5.00$	56.	46.0			
5.00 ~ 30.00	60.0	50.0			

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

#### 5.6 Test Results:

N/A

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

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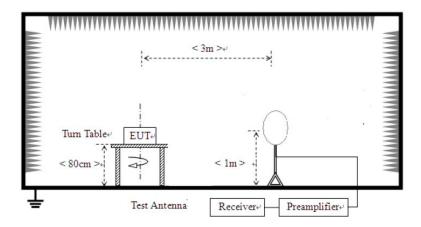


#### **6** Radiated Emission Test

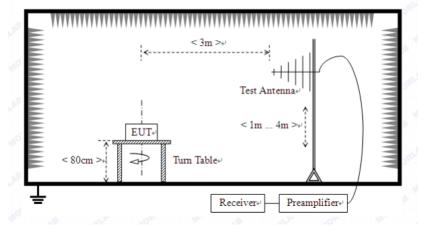
- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size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

#### **Block diagram of Test setup**

For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to1GHz



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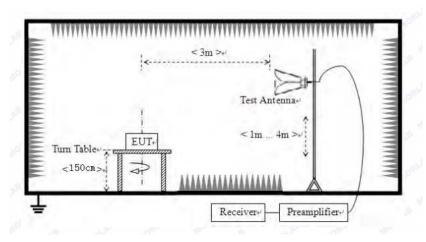
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For radiated emissions above 1GHz



- 6.2 Configuration of The EUT

  Same as section 5.3 of this report
- 6.3 EUT Operating Condition
  Same as section 5.4 of this report.
- 6.4 Radiated Emission Limit

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

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

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

Note:

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

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#### 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  $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 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. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.
- 5. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 6. 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.
- 7. New Battery used charged during tests.

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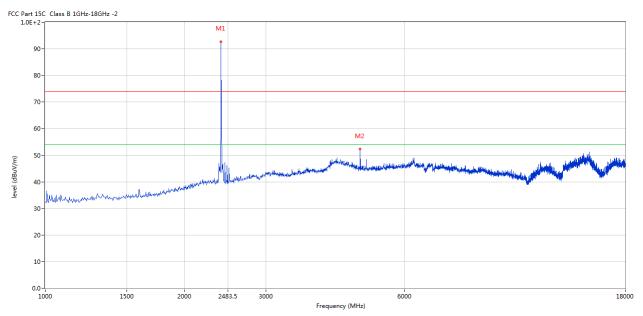


#### 6.5 Test result

### A Fundamental & Harmonics Radiated Emission Data

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

#### Horizontal



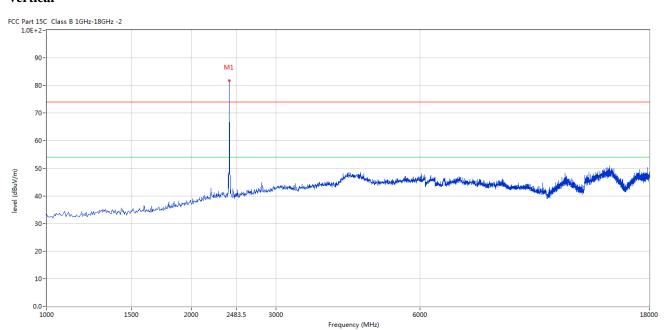
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402.383	93.06	-3.57	114.0	-20.94	Peak	228.00	100	Horizontal	Pass
2	4805.799	52.32	3.12	74.0	-21.68	Peak	233.00	100	Horizontal	Pass

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#### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402.383	82.38	-3.57	114.0	-31.62	Peak	198.00	100	Vertical	Pass

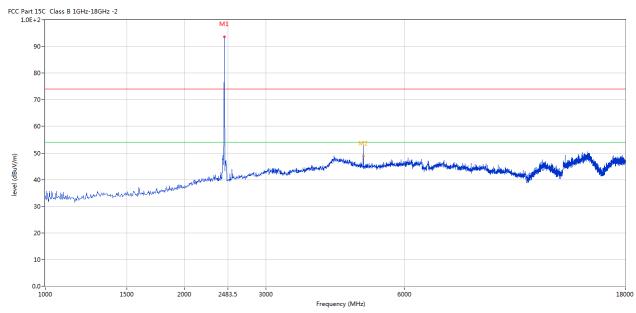
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Please refer to the following test plots for details: Middle Channel-2441MHz

#### **Horizontal**



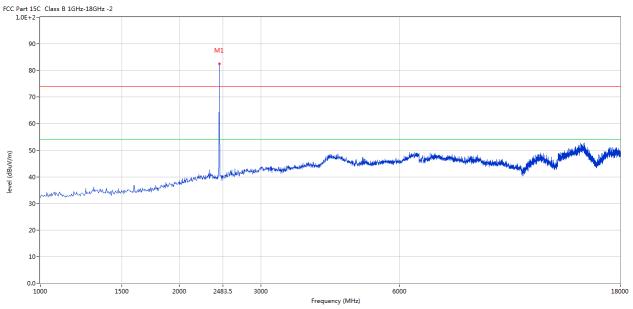
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2440.391	93.53	-3.57	114.0	-20.47	Peak	223.00	100	Horizontal	Pass
2	4883.529	54.20	3.20	74.0	-19.80	Peak	218.00	100	Horizontal	Pass
2**	4883.529	48.84	3.20	54.0	-5.16	AV	218.00	100	Horizontal	Pass

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#### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2440.391	82.49	-3.57	114.0	-31.51	Peak	155.00	100	Vertical	Pass

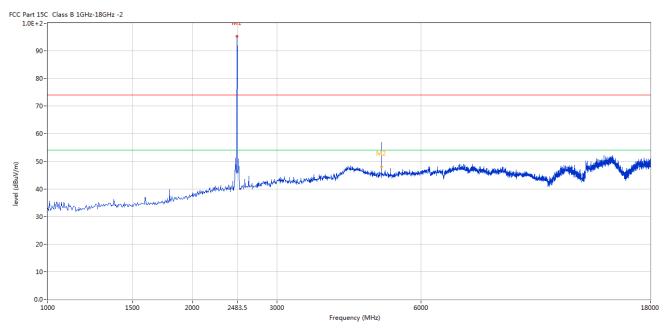
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Please refer to the following test plots for details: High Channel-2480MHz

#### Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2479.383	96.33	-3.57	114.0	-17.67	Peak	220.00	100	Horizontal	Pass
1*	2479.383	87.69	-3.57	94.0	-6.31	AV	220.00	100	Horizontal	Pass
2	4960.010	57.23	3.36	74.0	-16.77	Peak	225.00	100	Horizontal	Pass
2**	4960.010	48.02	3.36	54.0	-5.98	AV	225.00	100	Horizontal	Pass

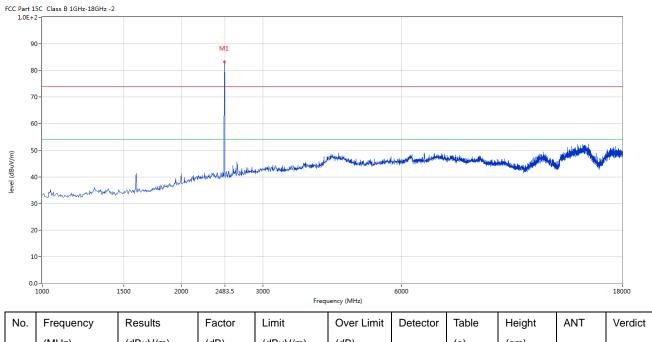
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#### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2479.383	83.32	-3.57	114.0	-30.68	Peak	192.00	100	Vertical	Pass

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

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

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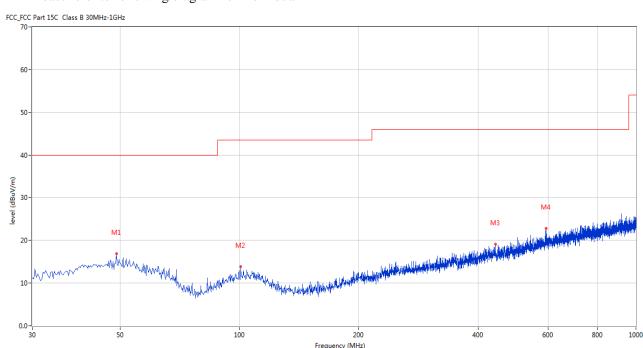


# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	48.910	16.86	-11.21	40.0	-23.14	Peak	330.00	100	Horizontal	Pass
2	100.792	13.85	-13.46	43.5	-29.65	Peak	341.00	100	Horizontal	Pass
3	441.905	19.09	-7.97	46.0	-26.91	Peak	330.00	100	Horizontal	Pass
4	592.944	22.79	-5.19	46.0	-23.21	Peak	283.00	100	Horizontal	Pass

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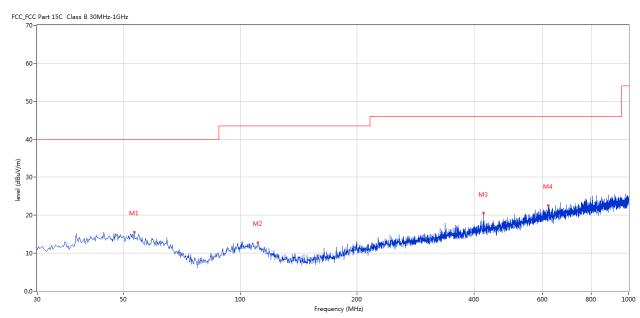


#### Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	53.274	15.59	-11.51	40.0	-24.41	Peak	70.00	100	Vertical	Pass
2	110.975	12.78	-13.65	43.5	-30.72	Peak	85.00	100	Vertical	Pass
3	422.752	20.50	-8.10	46.0	-25.50	Peak	0.00	100	Vertical	Pass
4	621.067	22.57	-4.90	46.0	-23.43	Peak	12.00	100	Vertical	Pass

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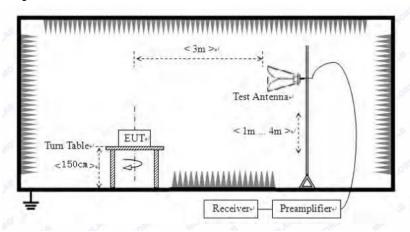


#### 7. Band Edge

#### 7.1 Test Method and test Procedure:

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

#### 7. 2 Radiated Test Setup



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

#### 7.3 Configuration of The EUT

Same as section 5.3 of this report

#### 7.4 EUT Operating Condition

Same as section 5.4 of this report.

#### 7.5 Band Edge Limit

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

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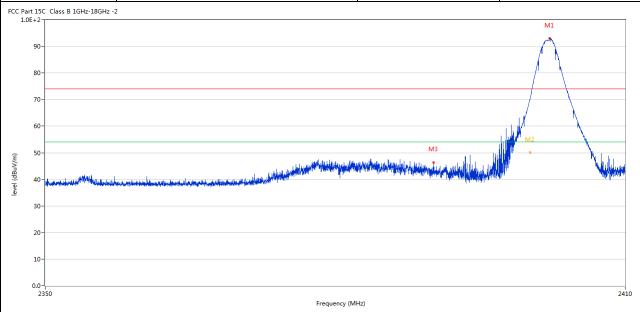
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#### 7.6 Test Result

Product:	WIRELESS OPTICAL 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	2403.112	92.97	-3.57	74.0	18.97	Peak	230.00	100	Horizontal	N/A
2	2400.042	70.11	-3.57	74.0	-3.89	Peak	225.00	100	Horizontal	Pass
2**	2400.042	50.05	-3.57	54.0	-3.95	AV	225.00	100	Horizontal	Pass
3	2390.025	46.32	-3.53	74.0	-27.68	Peak	230.00	100	Horizontal	Pass

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]	Product:	WIRE	LESS OPT	ICAL MOUS	SE	Detecto	or	Vertical		
	Mode	k	Keeping Tra	nsmitting		Test Volt	age	I	DC1.5V	
Te	mperature	24 deg. C,			Humidi	ty	5	6% RH		
Te	est Result:		Pas	s						
2 Part 1 1.0E+	15C Class B 1GHz-18GHz	-2								
g	90-							1	И1	
8	30-							/	$\mathcal{I}$	
7	70-									
6	50-									
						1	he in a	M2	\	
. 5	50-				1	الالله		M2 •	$\overline{}$	
5				what believe the probability				M2 •		
. 4		dikkila ki ka aku marasa alkah ayibd		ustat kahiligas ellapindes kahid	eteletis este entre la	January Mary		• •		
4	10 <b>- Addition of the Confidence</b>	diklek di kechanasi negleban di		untal helishiya Mayabeli helish	eddig fallow from the fallowing of the			•	1	
3	10 - <b>Julius de 1, de 1,</b>	Little Lipturkon siineelekkonsiid	والماران والمناول فاستا	ocheet Indiction and Proprieted Andreas	oddie litera drawinia contra de	. Markin by Markin		•		
3	10 <b>- Addition of the Confidence</b>	dikidah di perakuman kepadah anjad	Louis Josephon La Régio	enderf Jahrhouse Magazielen, helmer	relylleridis on desirely resisched	المحالية المحالية		•		
4 3 2	10 - <b>Julius de 1, de 1,</b>	takiba di ku dun sungkabun da	unde des planskylet et løg	what helichism of the probability helicit	oddish kan dawiddowyda M	hadiahin, bes		•		
4 3 2	00			F	requency (MHz)	Madin beautiful and the second		•		24
. 4 3 2 1	10 - <b>Julius de la combina</b> 50	Results	Factor			Detector	Table	Height	ANT	24
4 3 2 1	00			F	requency (MHz)		Table (o)	Height (cm)		24
1 0 No.	10- 10- 10- 10- 10- 2350	Results	Factor	Limit	requency (MHz)  Over Limit					24
1 No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	requency (MHz)  Over Limit (dB)	Detector	(o)	(cm)	ANT	verd N/A
. 4	Frequency (MHz) 2402.842	Results (dBuV/m) 82.13	Factor (dB)	Limit (dBuV/m) 74.0	over Limit (dB)	Detector Peak	(o) 168.00	(cm)	ANT Vertical	verd

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]	Product:	WI	RELESS	OPTICAL M	IOUSE		Polarity	y	Horizon	tal
	Mode		Keeping	g Transmittin	ıg	,	Test Volta	age	DC1.5	V
Te	mperature			l deg. C,			Humidit	ty	56% R	Н
Te	est Result:			Pass						
C Part 1	15C Class B 1GHz-18GHz -2	2				•				
8	10 -	٧		July July July July July July July July						
5 4 4 3 2 2		AR JOHN AND AND AND AND AND AND AND AND AND AN		M2		an and the section	aradaidheadh dhal d	harand function (first had	afarifadasharipangangan	
5 4 3 2 1 1 0.	00-			2483.5	Frequency (MHz)	and the second	aradaidhacaile dhal a	ha prompte prompte l'imment	afarikada pharipanyangan	2500
5 4 3 2 1 1 0.	0-	Results	Factor	2483.5	Frequency (MHz)  Over Limit	Detector	Table	Height	ANT	1
3 2 1 0.	0-2470			2483.5		Detector	Table (o)	Height (cm)	ANT	2500 Verdid
3 2 1 0.	00- 00- 00- 00- 00- 00- 00- 00- 00- 00-	Results	Factor	2483.5	Over Limit	Detector			ANT Horizontal	1
3 3 2 1 1 0.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	2483.5 Limit (dBuV/m)	Over Limit (dB)		(o)	(cm)		Verdi

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]	Product:	V	VIRELESS	OPTICAL	MOUSE		Detecto	r	Vertica	al
	Mode		Keepir	ng Transmitt	ing	-	Test Volta	age	DC1.5	V
Te	mperature		2	24 deg. C,			Humidi	ty	56% R	Н
Te	est Result:			Pass						
CC Part 1	.5C Class B 1GHz-18GHz	-2								
9	0-									
8	0-									
7	0-									
	0			M2						
6			IVI2							
_			/	M2						
		Lander Hall Hall Hall Hall Hall Hall Hall Hal	/	M2	Control of the second of		and the second of the second	No. of the state o	abilitatish di bayan da bayan da kalin d	li ute de la companya
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3 2 2 1 0 0 0		and the state of t			Mary Mary Mary Mary Mary Mary Mary Mary	iki pada da kalalalalala	المراجعة والمراجعة و	norsk jedistele in kanisassa,	<mark>letjetach o</mark> g <sub>e</sub> nderen j <sub>e</sub> nderen jeden	
5 4 4 3 2 2 1 1 0 0 0		LEPHAND AND MANAGEMENT		2483.5	Frequency (MHz)	Heretand and helpful	undelik del <sub>a</sub> men desken jagek	nega <sub>n</sub> indeptation	ationics of principal littles.	2500
3 2 1 0.		Results	Factor	2483.5		Detector	Table	Height	ANT	Ī
5 5 4 4 3 3 2 1 1 0 0 0	0-			2483.5	Frequency (MHz)					Ī
3 2 1 0.	o	Results	Factor	2483.5 Limit	Frequency (MHz)  Over Limit		Table	Height		z500 Verdic

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

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#### 8.0 Antenna Requirement

#### **Applicable Standard**

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

This product has a PCB antenna. The antenna gain is -1.85dBi Max. It fulfills the requirement of this section. Test Result: Pass

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<b>9.0</b> 20dB Bandwidt	h Measurement WIRELESS OPTICAL MOUSE					
Product:	WIRELES	S OPTICAL MOUSE	•	Test Mode:	Ke	ep transmitting
Mode	Keepi	ing Transmitting		Test Voltage	2	DC1.5V
Temperature		24 deg. C,		Humidity		56% RH
Test Result:		Pass		Detector		PK
20dB Bandwidth		2.485MHz				
<b>F</b>	Marker	1 [T1 ndB]	RI	3W 100 k	Hz RF A	tt 20 dB
Ref Lvl	ndB	20.00 dB		300 k		_
10 dBm	BW	2.48496994 MHz	Sī	WT 5 m	ns Unit	dBm
				<b>▼</b> 1	[T1]	-4.91 dBm
0					2.	40238377 GHz
		1		nd! BW		20.00 dB 48496994 MHz
-10			\_	$\bigwedge$ $\nabla_{\mathbf{T}}$	] Z.	-24.97 dBm
-10		/ \ /		$\sim$	2.	40168236 GHz
		$\sim$		$\nabla^{\mathrm{T}}$	[T1]	-25.35 dBm
-20 1MAX	T1				Ţ2 2.	40416733 GHz
-30					Van	
-40 MM/M						Mun
-50						
-60						
-70						
-80						
-90 Center 2.	403 GHz	500 ]	kHz/			Span 5 MHz
Date: 30.	.MAR.2022 18	3:02:53				

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Product:	WIRELES	S OPTICAL MOUSE	2	Test Mode:		Keep transmitting		
Mode	Keeping Transmitting			Test Voltage	е	DC1.5V		
Temperature	24 deg. C,			Humidity		56% RH		
Test Result:	Pass			Detector		PK		
20dB Bandwidth	2.295MHz							
Ŕ	Marker 1 [T1 ndB]		RB	W 100 }	Hz RF Att		20 dB	
Ref Lvl	ndB	20.00 dB	VB					
10 dBm	BW	BW 2.29458918 MHz		Г 5 r	ms U	nit	dBm	
10				<b>v</b> <sub>1</sub>	[T1]	-4.	68 dBm	A
						2.440383	77 GHz	A
0		1		nd	В	20.	00 dB	
			$\uparrow \searrow$	BW	1	2.294589		
-10		<del>                                     </del>		V V	<u> [T1]</u>	-24.	66 dBm	
			V	V	2 [T1]		175 GHz	
-20				. 1	F [11]		'33 GHz	
1MAX	A. A.				A L	2.112107		LMA
-30	ſ							
					\			
10	many				W	~~~~	\	
-40							λ.	
Melo							Und	
-50								
-60								
-70								
-80								
-90 Center 2.	441 GHz	500	kHz/		I	Span	ı 5 MHz	
			-,			~F 34.		
Date: 30	.MAR.2022 1	8:05:06						

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Product:	WIRELESS OPTICAL MOUSE			,	Test Mode:		Keep transmitting		
Mode	Keeping Transmitting			7	Test Voltage	;	DC1.5V		
Temperature	24 deg. C,				Humidity		56% RH		
Test Result:	Pass				Detector		PK		
20dB Bandwidth	2.305MHz								
(R)	Marker 1 [T1 ndB]		RBW	100 k	100 kHz RF Att		20 dB		
Ref Lvl	ndB		00 dB	VBW					
10 dBm	BW 2	BW 2.30460922 MHz		SWT	5 ms Un		nit dBm		ı
					<b>v</b> <sub>1</sub>	[T1]	-5	.63 dBm	A
							2.47938	377 GHz	A
0		1			ndI	8	20	.00 dB	
		$\overline{}$	~		BW		2.30460		
-10				\ ~	V <sub>T</sub>	[T1]	-25	.79 dBm	1
				$\bigvee$		2 [T1]	2.47886 -26		
-20		/ *			1	. [11]	2.48116	733 GHz	
1MAX	T.					T2			1MA
-30									
-40	www					<b>\</b>	mann		
-40							•	M	
Melan								Luky	,
-50									
-60									
-70									
-80									
-90									
Center 2.48 GHz 500 kHz/ Span 5 MHz									
Date: 30.MAR.2022 18:06:44									

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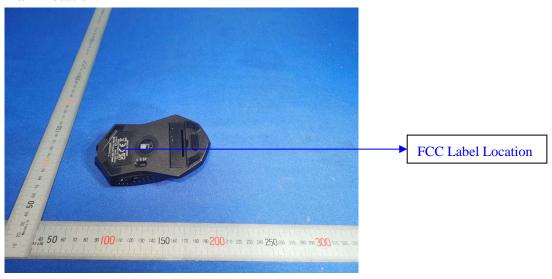


#### 10.0 FCC ID Label

#### FCC ID: TUVDS-2472

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

#### **Mark Location:**



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11.0 Photo of testing

#### 11.1 Conducted test View-N/A

Radiated emission test view





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#### 11.2 Photographs – EUT

#### Outside View



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Outside View





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Outside View



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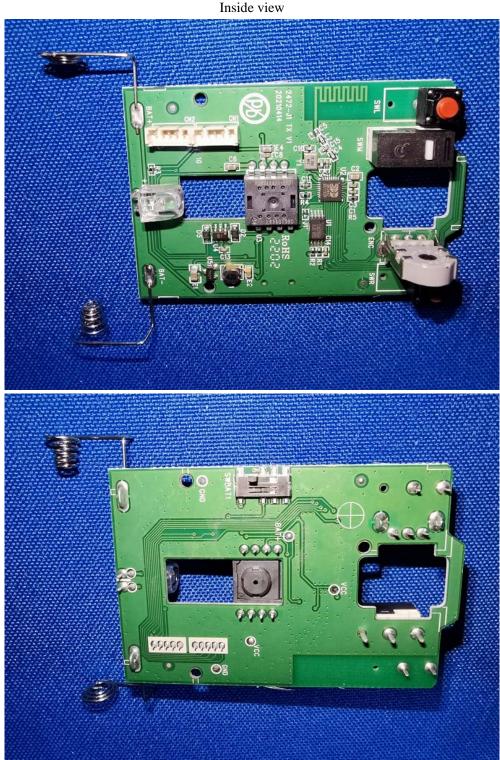
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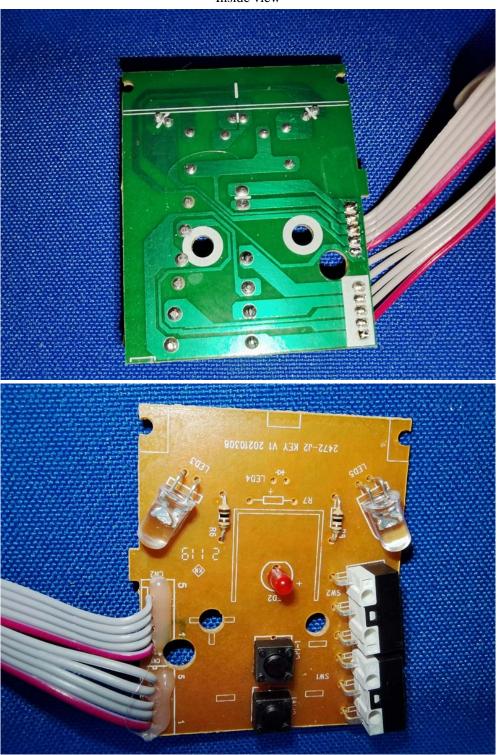
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Inside view



-- End of the report--

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