

Applicant: Eastern Times Technology Co.,Ltd

Product: WIRED/2.4G/BT WIREL ESS GAMING MOUSE

Model No.: M814RGB-PRO, M814W-RGB-PRO, DS-4011

Trademark: REDRAGON

Test Standards: FCC Part 15.249

Test result:

It is herewith confirmed and found to comply with the

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

electromagnetic compatibility

Approved By

.

Terry Tang

Manager

Dated: April 26, 2024

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

#### SHENZHEN TIMEWAY TESTING LABORATORIES

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

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

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### **Special Statement:**

#### FCC-Registration No.: 744189

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

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

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

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

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

CAB identifier: CN0033

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## Test Report Conclusion

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

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FCC ID Label....

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: WIRED/2.4G/BT WIREL ESS 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

Additional Trademark: N/A

Model Number: M814RGB-PRO

Additional Model Name M814W-RGB-PRO, DS-4011

Hardware Version: 4011-A TX V1

Software Version: c533d42f

Serial No.: RDM814RGB-PR023122501511
Rating: DC5V, 300mA or DC3.7V, 40mA
Battery: DC3.7V, 1000mAh Li-ion battery

Modulation Type: GFSK

Operation Frequency: 2402-2480MHz

Channel Separate: 1MHz Channel Number: 79

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

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1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2024-04-03 to 2024-04-26

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: Terry Tang

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100294	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100253	2023-07-14	2024-07-13
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2023-07-14	2024-07-13
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2023-07-14	2024-07-13
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	2023-07-14	2024-07-13
Power sensor	Anritsu	MA2491A	32263	2023-07-14	2024-07-13
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	2023-07-14	2024-07-13
EMI Test Receiver	RS	ESCS 30	834115/006	2023-07-14	2024-07-13
Spectrum	HP/Agilent	E4407B	MY50441392	2023-07-14	2024-07-13
Spectrum	RS	FSP	1164.4391.38	2023-07-14	2024-07-13
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2023-07-14	2024-07-13
RF Cable	Zhengdi	7m		2023-07-14	2024-07-13
Pre-Amplifier	Schwarebeck	BBV9743	#218	2023-07-14	2024-07-13
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2023-07-14	2024-07-13
LISN	SCHAFFNER	NNB42	00012	2023-07-14	2024-07-13
ESPI Test Receiver	R&S	ESPI 3	100379	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100294	2023-07-14	2024-07-13

#### 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	heen tested	according to	a the followi	ng specifications:

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

#### 3.2 Test Standards

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

#### 4.0 EUT Modification

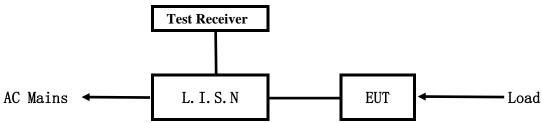
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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#### 5. Power Line Conducted Emission Test

#### 5.1 Schematics of the test

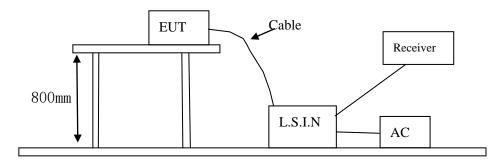


**EUT: Equipment Under Test** 

#### 5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10-2013.

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.

79 channels are provided to the EUT

#### A. EUT

Device	Device Manufacturer		FCC ID	
WIRED/2.4G/BT WIREL ESS	Eastern Times	M814RGB-PRO,	TINET 4011 A	
GAMING MOUSE	Technology Co.,Ltd	M814W-RGB-PRO, DS-4011	TUVET-4011A	

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#### B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

#### C. Peripherals

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

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013

- 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 $\mu$ V)			
(MHz)	Quasi-peak Level	Average Level		
$0.15 \sim 0.50$	66.0~56.0*	56.0~46.0*		
$0.50 \sim 5.00$	56.0	46.0		
5.00 ~ 30.00	60.0	50.0		

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

2. The tighter limit shall apply at the transition frequencies

#### 5.6 Test Results:

Pass

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

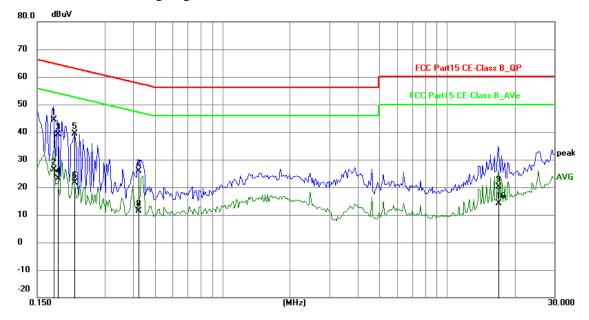
#### **EUT Operating Environment**

Temperature: 25°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Charging and Communication by BT** 

**Results: Pass** 

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1773	34.49	9.77	44.26	64.61	-20.35	QP	Р
2	0.1773	16.61	9.77	26.38	54.61	-28.23	AVG	Р
3	0.1850	29.49	9.76	39.25	64.26	-25.01	QP	Р
4	0.1850	13.46	9.76	23.22	54.26	-31.04	AVG	Р
5	0.2202	29.66	9.75	39.41	62.81	-23.40	QP	Р
6	0.2202	11.96	9.75	21.71	52.81	-31.10	AVG	Р
7	0.4230	16.24	9.76	26.00	57.39	-31.39	QP	Р
8	0.4230	1.65	9.76	11.41	47.39	-35.98	AVG	Р
9	16.8567	9.54	10.49	20.03	60.00	-39.97	QP	Р
10	16.8567	3.71	10.49	14.20	50.00	-35.80	AVG	Р

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

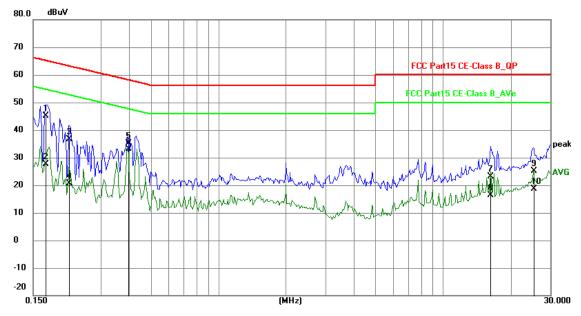
#### **EUT Operating Environment**

Temperature: 25°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Charging and Communication by BT** 

**Results: Pass** 

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1695	35.25	9.77	45.02	64.98	-19.96	QP	Р
2	0.1695	17.83	9.77	27.60	54.98	-27.38	AVG	П
3	0.2163	26.77	9.75	36.52	62.96	-26.44	QP	Р
4	0.2163	10.95	9.75	20.70	52.96	-32.26	AVG	Р
5	0.3957	25.47	9.76	35.23	57.94	-22.71	QP	Р
6	0.3957	23.47	9.76	33.23	47.94	-14.71	AVG	Р
7	16.2600	12.57	10.46	23.03	60.00	-36.97	QP Q	Р
8	16.2600	5.80	10.46	16.26	50.00	-33.74	AVG	Р
9	25.2495	14.20	11.01	25.21	60.00	-34.79	QP	Р
10	25.2495	7.64	11.01	18.65	50.00	-31.35	AVG	Р

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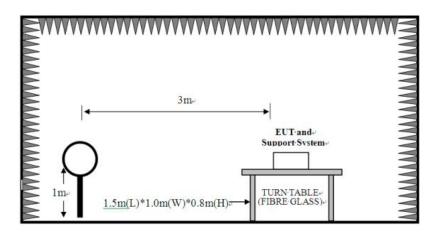


#### **6** Radiated Emission Test

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

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

For radiated emissions from 9kHz to 30MHz



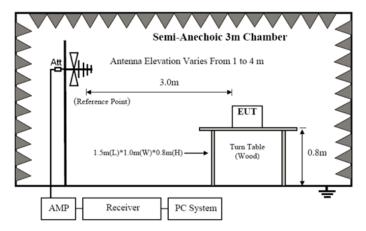
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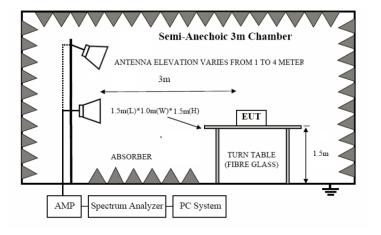
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of The EUT

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

  Same as section 5.4 of this report.

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#### 6.4 Radiated Emission Limit

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

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

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

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
30-88	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. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
- 6. Battery full charged during tests.

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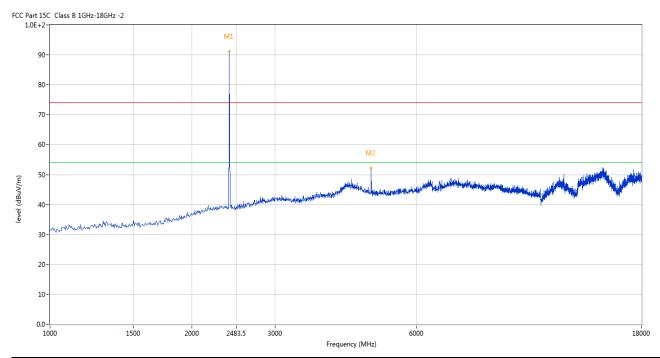


#### 6.5 Test result

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

Please refer to the following test plots for details: Low Channel-2402MHz

#### Horizontal



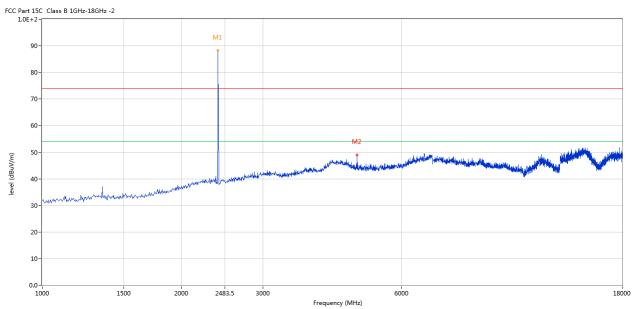
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402	91.09	-3.57	114.0	-22.91	Peak	264.00	100	Horizontal	Pass
2	4802.799	52.12	3.12	74.0	-21.88	Peak	274.00	100	Horizontal	Pass

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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	2402	88.32	-3.57	114.0	-25.68	Peak	45.00	100	Vertical	Pass
2	4802.799	49.06	3.12	74.0	-24.94	Peak	40.00	100	Vertical	Pass

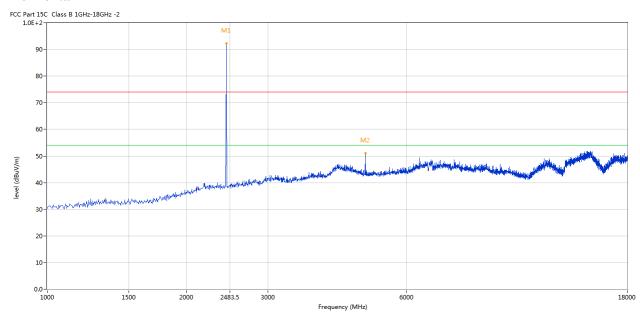
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Please refer to the following test plots for details: Middle Channel-2441MHz

#### **Horizontal**



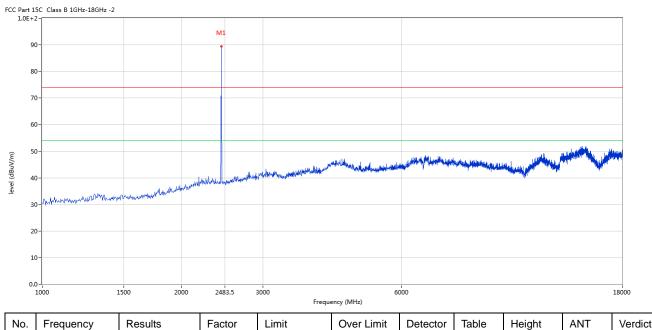
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	92.28	-3.57	114.0	-21.72	Peak	298.00	100	Horizontal	Pass
2	4879.280	51.08	3.20	74.0	-22.92	Peak	292.00	100	Horizontal	Pass

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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	2441	89.45	-3.57	114.0	-24.55	Peak	41.00	100	Vertical	Pass

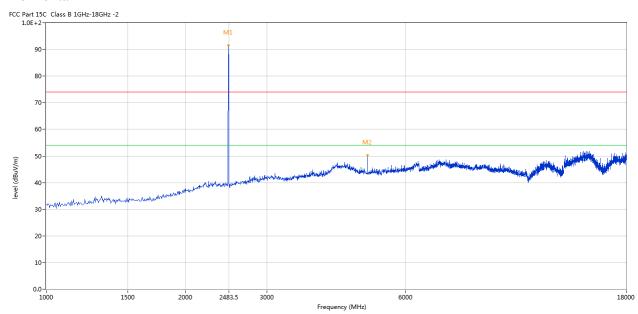
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Please refer to the following test plots for details: High Channel-2480MHz

#### **Horizontal**



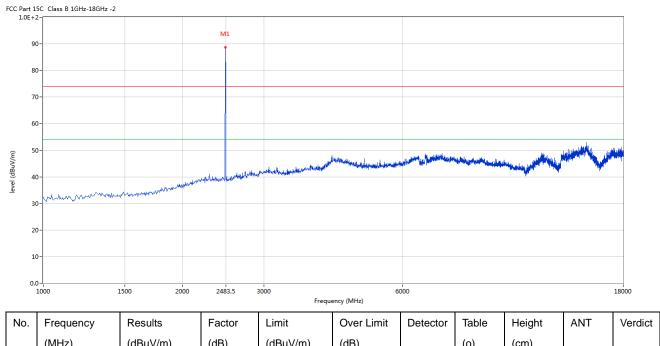
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	91.49	-3.57	114.0	-22.51	Peak	254.00	100	Horizontal	Pass
2	4960.010	50.24	3.36	74.0	-23.76	Peak	274.00	100	Horizontal	Pass

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#### Vertical



(MHz) (dBuV/m) (dB) (dBuV/m) (dB) (o) (cm) 2480 88.76 -3.57 114.0 -25.24 36.00 100 Vertical Pass Peak

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

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

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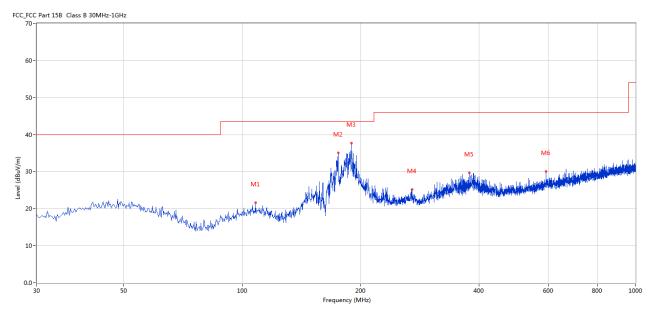


# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	108.065	21.65	-13.42	43.5	21.85	Peak	277.00	100	Horizontal	Pass
2	175.221	35.07	-15.63	43.5	8.43	Peak	277.00	100	Horizontal	Pass
3	189.768	37.65	-14.33	43.5	5.85	Peak	237.00	100	Horizontal	Pass
4	270.015	25.21	-11.75	46.0	20.79	Peak	268.00	100	Horizontal	Pass
5	377.901	29.69	-9.34	46.0	16.31	Peak	0.00	100	Horizontal	Pass
6	591.975	30.04	-5.16	46.0	15.96	Peak	275.00	100	Horizontal	Pass

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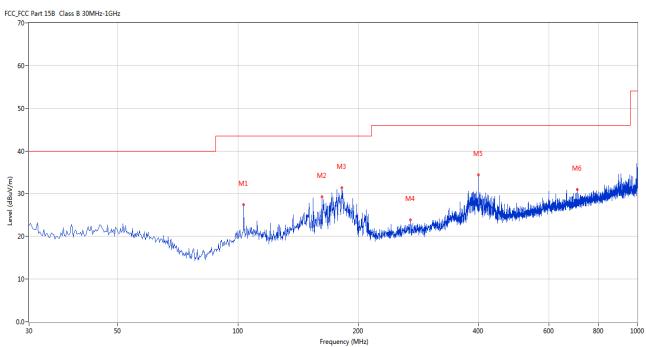


#### Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	103.459	27.42	-13.36	43.5	16.08	Peak	214.00	100	Vertical	Pass
2	162.372	29.32	-16.39	43.5	14.18	Peak	262.00	100	Vertical	Pass
3	182.009	31.32	-15.03	43.5	12.18	Peak	224.00	100	Vertical	Pass
4	270.015	23.86	-11.75	46.0	22.14	Peak	322.00	100	Vertical	Pass
5	399.963	34.44	-8.57	46.0	11.56	Peak	326.00	100	Vertical	Pass
6	707.133	31.01	-3.92	46.0	14.99	Peak	73.00	100	Vertical	Pass

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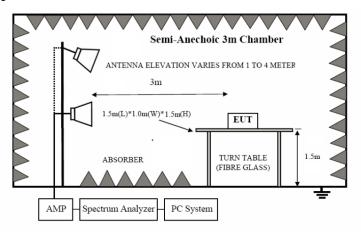


#### 7. Band Edge

#### 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

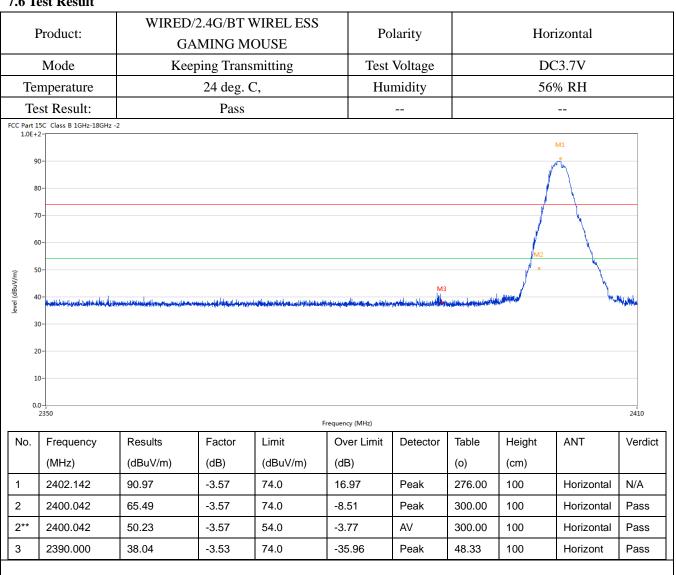
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

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#### 7.6 Test Result



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I	Product:		/2.4G/BT \ AMING M	WIREL ESS OUSE	Det	tector		Vert	ical	
	Mode	Kee	ping Trans	smitting	Test '	Voltage		DC3	.7V	
Te	mperature		24 deg. (	C,	Hur	nidity		56%	RH	
Te	st Result:		Pass						-	
Part 1 1.0E+	5C Class B 1GHz-18GHz	-2			<u>'</u>					
90	1-								M1	
81										
								/	$\overline{}$	
70	0-									
6	0-									
50	0-							M2	$\overline{}$	
50		والمستورد والمستورد والمستورة والمستارة والمستارة والمستارة والمستورة والمستارة والمستارة والمستارة والمستارة والمستارة والمستارة والمستارة والمستورة والمست	una tanasi kidulu sikhisy satasyku, oo s	eranda keleka jalas ilikana sa ili ilikahala pagaya.	والمستعلقة فالمستعلقة والمستعلقة	M. مالاد فرور در و و و و و و و و و و و و و و و و و	المستعدد الم	M2		Name of the last
	D - رېدنې پېرې او د د د د د د د د د د د د د د د د د د	والمعارضة المستعددة والمستعددة والمستعدد والمس	tentingel, details jähete, etterkung h	engely a his household floor species that a long a floor	فتلمده فالمعبدة بالإطاعاء وصيدان	Marinalistichadiya.cojigbilg	3 New production of the stands	M2 •		L.
31	D-	wante of the spiritual state of the spiritual	reministration of the light security of the course	والمعاونة والمعارضة	فتأمدوه أماديعه لهاجاله والمستوعدية ال	M phonistican philips and philips	3 Krayeslajgo (Kristy)	M2 •		
41	D-	والمرابعة	quasirant displacement de la constantina de la constantina de la constantina de la constantina de la constanti	sayata ahi da mata sa filmana madada da qaysilar	فناحب فأمديين والطلطاب عبره ل	Mary and a state of the same o	3 An ang pangangan palabangga	ymberydd d		h
31	D	يادي والمراجعة و	renizione de la indicazione de	ang the sale through the sale of flower as the sale of	فنفسو فأموره بارة والمفامرة مردعان	M	3 Arangania (no any iditrahy)	M2		A market
40 30 20 10		ikanipakkingti dasikangtipa panghal	irminestatoluksikkituretarlungi	જ્યાનું કરતા કર્યા હતા કર્યા છે. કર્યું કે તેમાન જ હતા અને કર્યા હતા હતા હતા હતા હતા હતા હતા હતા હતા હત	فتالهم فأمار ووارا والمواجو ويراها	M opening all and design a constant	3 Newsymulay gan ay idda dayl	M2 •		Management
40 30 20 10	D - hadelphankenesses and hadenesses of the	ing a file of the state of the	renizione del plui del provincia de la constante de la constante de la constante de la constante de la constant	g i paule a gran gran garage	idayahaya yalib	M	3 Aragania (no assida dad	M2		
40 30 20 10		Results	Factor	g i paule e grand given species and angele		Detector	Table	Height	ANT	1
46 36 26 16	D-thinks before the billion with,			a transfer of the state of the	Frequency (MHz)	of any active to design a company	te en provincia por especial de depl	Height (cm)	ANT	1
46 36 26 16	Frequency	Results	Factor	Limit	Frequency (MHz)  Over Limit	of any active to design a company	Table	_	ANT Vertical	1
44 34 20 10 0.4	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Frequency (MHz)  Over Limit  (dB)	Detector	Table (o)	(cm)		Verd
44 31 21 11 0.4	Frequency (MHz)	Results (dBuV/m) 87.18	Factor (dB)	Limit (dBuV/m) 74.0	Over Limit (dB)	Detector Peak	Table (o) 43.00	(cm)	Vertical	Verd N/A Pass Pass

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I	Product:		D/2.4G/B' GAMING	T WIREL ES MOUSE	SS	Polarity		Н	orizontal	
	Mode	K	eeping Tra	ansmitting	-	Test Voltag	e	I	DC3.7V	
Tei	mperature		24 deg	g. C,		Humidity		5	6% RH	
Те	st Result:		Pas	SS						
90 80	0-	z -2	y a karakara kara	M1						
60 50	0-	كم م	and a second	Mark Mark	2					
40	e hold the effective the bottle and entering	Marie			Many Mark	he despression of when the distribution of when we	arabitati da	<del>padatharia padalyny suta</del>	girlege a che de se se se de la che	. Paradaga di Angli
20	0-									
0.0	0- <del> </del> 2470			248	3.5 Frequency (MHz)					2
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verd
1	2480.115	91.07	-3.57	74.0	17.07	Peak	253.00	100	Horizontal	N/A
2	2483.500	55.72	-3.57	74.0	-18.28	Peak	253.00	100	Horizontal	Pass
2**	2483.500	40.38	-3.57	54.0	-13.62	AV	253.00	100	Horizontal	Pass

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]	Product:		D/2.4G/BT SAMING M	WIREL ESS MOUSE	De	etector		Ve	rtical	
	Mode	Ke	eping Tran	nsmitting	Test	Voltage		DC	23.7V	
Те	mperature		24 deg.	C,	Hu	ımidity		569	% RH	
Te	est Result:		Pass							
CC Part 1 1.0E+	15C Class B 1GHz-18GHz 2-r	-2								
	00-		M1	w <sub>s</sub>						
	70-		- V	N. W.						
6	60-		M	W <sub>M2</sub>						
(im/vandb) 5	10-	and a minimum an		M	Landanenenenenenen	dags for a garage play day of history	<del>des</del> saturation dessaturations des	often bereift sich sich billitige "bereifte	ndaiseadh sphlithig ag mabach foold	at del propins
4	10-	erlaminent sinner sinner sin		m	Norman character	dagshronaen pirpheedinistina	nder stations de des stations de la constitució	والإساف ويوادوا فللأواماء المأافات والموافد	ndamentispilitiking na pubandpolit	nt-distantant-pi
4	10-	arkeniminen annanak ya k		W	Manuscript or the second secon	dagdhrog ag nghlandheithig	ngga sagaran shirkan kalenda kalenda	derdagensk sikeling billeren Jorgan	rdisuudisiyddilisteegen baalkad	n de la constant
8/Angp) 44	10-mainstachtschafterflaglachtede.	arkainstanten airrataka		M	Marine and the second of the s	<del>dateller e a</del> ge gitt dan de zitte a	ophy, annough der dill and pech	dentan projektiva Jeografia	ન્ત્રીકાર્યા કાર્યા કુલ્લો કેટ્સ કુલ્લા ક	n.dd.proj.d
#/nngp 4 4 3 3 2 2 1 1 0.	10 - and specifical desired and specifical de	and have increased and a single-standing of the		2483.5 Fr	equency (MHz)	Halilossa, alvandizibus	aping safetin yak hara shilli abiliyi ci da	denterany state has before plumps	rdina displayor public from	2500
#/nngp 4 4 3 3 2 2 1 1 0.		Results	Factor			Detector	Table	Height	ANT	2500
E/(nngp)   4   3   3   2   1   0.	0		Factor (dB)	Fr	equency (MHz)					
E/(nngp)   4   3   3   2   1   0.	no- no- no- no- no- no- no- no- no- no-	Results		Limit	equency (MHz)  Over Limit		Table	Height		2500

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 with gain 2.34dBi maximum. It fulfills the requirement of this section.

Test Result: Pass

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Product:	WIR	ED/2.4G/	BT WIRE MOUSE	L ESS GA E	MING	Test Mod	de:	Keep tra	ansmitting	
Mode		Keep	oing Trans	mitting		Test Volta	age	DC	23.7V	
Temperature			24 deg. (	Ξ,		Humidi	ty	56%	6 RH	
Test Result:			Pass			Detecto	or	I	PK	
20dB Bandwidth			986kHz	Z						
Ref Lvl		ndB	1 [T1 r 20. 5.971943	.00 dB	RBW VBW SWT	30 k 100 k 8.5 m	Ηz	F Att	20 dB	n
10				2		▼1	[T1]	-1 2.40200	.17 dBm	A
-10				N	Jan Jan	ndf BW <b>V</b> Ti	98 - [T1]	20 5.97194 -21	.00 dB 389 kHz .00 dBm	
-20			T1		`	7 1 T2T?	? [T1]	2.40152 -20 2.40250	204 GHz .88 dBm 802 GHz	!
1MAX -30						J	4			1M
-40	1	$\mathcal{N}$					$\frac{1}{}$	\		
-50	<u>م</u>							The state of the s	$\wedge$	
No declar									V	
-60										
-70										
-80										
-90 Center 2.	402 GI	Ηz		300	kHz/			Spa	n 3 MHz	I

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Product:	WIRED/2.4G/BT WIREL ESS GAMIN MOUSE				Test Mode:			Keep transmitting			
Mode Keeping Transmitting					Test Voltage			DC3.7V			
Temperature 24 deg. C,					]	Humidity		56% RH			
Test Result:	Pass	Pass			Detector		PK				
20dB Bandwidth		991kHz									
Æ.	Marker	1 [T1 n	idB]	R	BW	30 k	Hz R	F Att	20 dB		
Ref Lvl	ndB	20.	00 dB	V	BW	100 k	Ηz				
10 dBm	BW 99	1.983967	94 kHz	S	WT	8.5 m	s U	nit	dBm	ı	
10						▼1	[T1]	-1 2.44099	.78 dBm	A	
0			1			ndE	3	20	.00 dB	ļ	
			$\sim$			BW		1.98396	794 kHz		
-10			$\mathcal{N}$	- /	1	VTI	[T1]	-21	.75 dBm		
		أرير	$r^{I}$		7	7		2.44052	204 GHz		
-20		T1				<b>V</b> T2	? [T1]	-22	.03 dBm		
1MAX						No. of	٧.	2.44151	.403 GHz	1MA	
-30							74				
-40	كسكمه							N			
-60 <b>May</b>											
-70											
-80											
-90 Center 2	.441 GHz		300	kHz/				Spa	ın 3 MHz		
	7.APR.2024 16	5:05:47		•				1.1			

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Product:	WIRED/2.4G/BT WIREL ESS GAMING MOUSE				ING	Test Mode:			Keep transmitting			
Mode Keeping Transmitting					Test Voltage			DC3.7V				
Temperature 24 deg. 0			4 deg. C,	. C,		Humidity Detector			56% RH PK			
Test Result:		Pass										
20dB Bandwidth		986kHz							1			
/E Ja		Marker	1 [T1 n	idB]	R	BW	30 k	Hz R	F Att	20 dB		
Ref Lvl		ndB	20.	00 dB	V	BW	100 k	Hz				
10 dBm		BW 985	5.971943	89 kHz	S	WT	8.5 m	s U	nit	dBm	L	
10							▼1	[T1]	-2 2.47999	.01 dBm	A	
0				1			ndE	3	20	.00 aB		
				$\sim$	1		BW		5.97194	389 kHz		
-10				$\Delta$	37	۳_	<b>▽</b> ⊤1	[T1]	-22	.10 dBm		
			,	r <sup>r*</sup>		×	Ŋ		2.47952	204 GHz		
-20			T1_				<b>V</b> T2		-22	.12 dBm		
1MAX							Charles .		2.48050	802 GHZ	1MA	
-30								7				
-40 -50		Ą							W/~			
-60 - 1 - 60 - 60 - 60 - 60 - 60 - 60 -	rt									M		
-70												
-80												
-90 Center 2	.48 GHz	:		300	kHz/				Spa	n 3 MHz		
Date: 17	7.APR.2	024 15	:45:56									

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#### 10.0 FCC ID Label

#### FCC ID: TUVET-4011A

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

#### **Mark Location:**



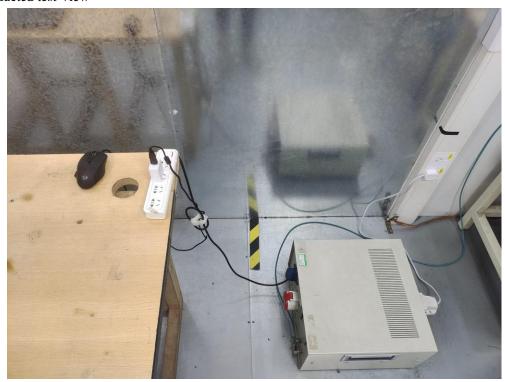
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#### 11.0 Photo of testing

#### 11.1 Conducted test View--



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#### Radiated emission test view



Photographs - EUT

Please refer test report TW2404067-01E

#### -- End of the report--

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

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