

Applicant: Eastern Times Technology Co.,Ltd

Product: Wireless Mechanical Gaming Keyboard

Model No.: PC388A, ET-8619, JS-8619

Trademark: N/A

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: December 19, 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

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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

Date: 2023-12-19



Test Report Conclusion

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

11.0

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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 Mechanical Gaming Keyboard
Manufacturer: Eastern Times Technology Co.,Ltd

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

Dongguan City, Guangdong, China.

Trademark: N/A
Model Number: PC388A

Additional Model Name ET-8619, JS-8619 Rating: Input: DC5V, 2A

Battery: DC3.7V, 1600mAh Li-ion battery

Hardware Version: 460A Software Version: 8619-A V1 Serial No.: 23K11

Operation Frequency: 2402-2480MHz

Modulation Type: GFSK Number of Channels: 79 Channel Separation: 1MHz

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

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1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2023-12-05 to 2023-12-19

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	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

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
FCC Part 15.215(c)	20dB bandwidth	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**

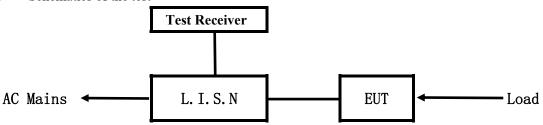
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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5.0 Power Line Conducted Emission Test

5.1 Schematics of the test

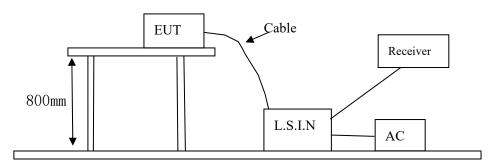


EUT: Equipment Under Test

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	Manufacturer	Model	FCC ID
Wireless Mechanical	Eastern Times Technology	DC200A ET 0610 IC 0610	TIN/ET 0610A
Gaming Keyboard	Co.,Ltd	PC388A , ET-8619, JS-8619	TUVET-8619A

B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
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NI/A		
1N/ PA		

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 ~ 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:

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

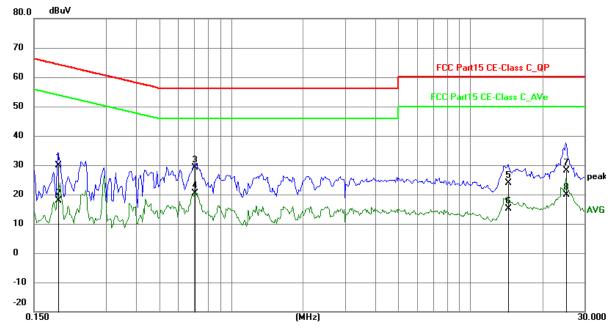
EUT Operating Environment

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

EUT set Condition: Charging + 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	0.1890	20.11	9.76	29.87	64.08	-34.21	QP	Р
2	0.1890	8.11	9.76	17.87	54.08	-36.21	AVG	Р
3	0.7077	19.43	9.78	29.21	56.00	-26.79	QP	Р
4	0.7077	10.59	9.78	20.37	46.00	-25.63	AVG	Р
5	14.4387	13.51	10.36	23.87	60.00	-36.13	QP	Р
6	14.4387	4.66	10.36	15.02	50.00	-34.98	AVG	Р
7	25.0974	17.04	11.00	28.04	60.00	-31.96	QP	Р
8	25.0974	9.00	11.00	20.00	50.00	-30.00	AVG	Р

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

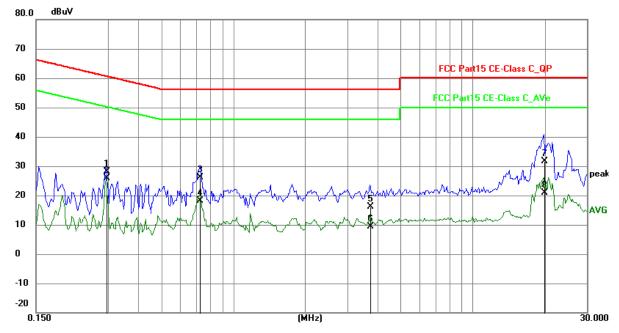
EUT Operating Environment

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

EUT set Condition: Charging + 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	0.2943	18.35	9.76	28.11	60.40	-32.29	QP	Р
2	0.2943	16.20	9.76	25.96	50.40	-24.44	AVG	Р
3	0.7272	16.35	9.78	26.13	56.00	-29.87	QP	Р
4	0.7272	8.42	9.78	18.20	46.00	-27.80	AVG	Р
5	3.7332	6.33	9.88	16.21	56.00	-39.79	QP	Р
6	3.7332	-0.38	9.88	9.50	46.00	-36.50	AVG	Р
7	19.8831	20.87	10.67	31.54	60.00	-28.46	QP	Р
8	19.8831	10.28	10.67	20.95	50.00	-29.05	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 9kHz to 25 GHz was investigated. The frequency spectrum is set as follows:

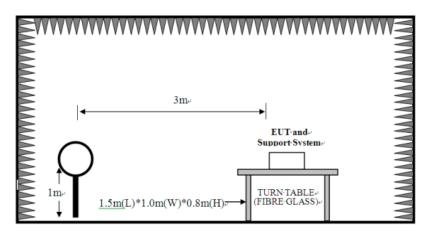
Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
ADOVE IGHZ	Peak	1MHz	10Hz	Average

(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

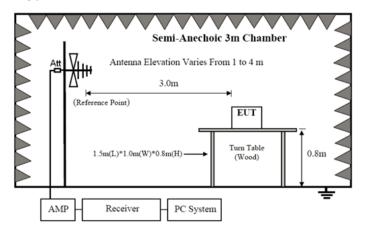
For radiated emissions from 9kHz to 30MHz



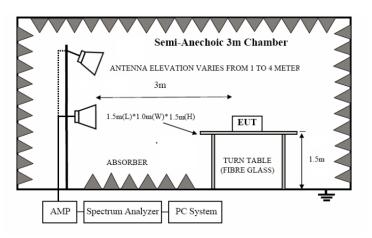
Date: 2023-12-19



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.
- 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 Fundamental (3m)	Field Strength of Harmonics (3m)			
(MHz)	mV/m	dBuV/m	uV/m	dBuV/m		

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2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)
2 100 2 103.3	50) I (Tiverage)	III (I cak)	500	J ((Tive tage)	/4 (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 μ 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
21 -960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. Battery fully charged was used during the test.

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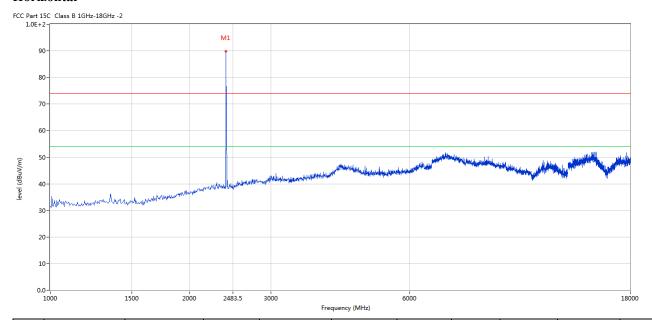


6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

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

Horizontal



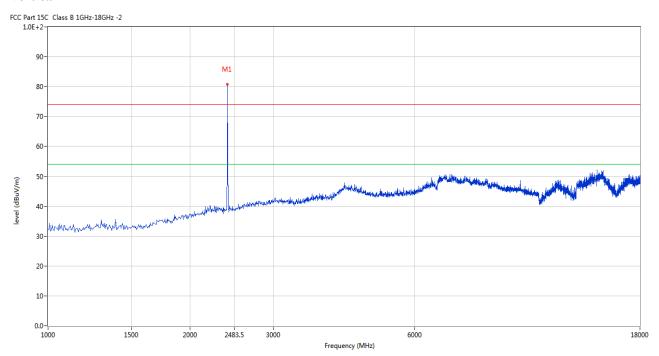
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402	89.86	-3.57	114.0	-24.14	Peak	89.00	100	Horizontal	Pass

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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	80.87	-3.57	114.0	-33.13	Peak	179.00	100	Vertical	Pass

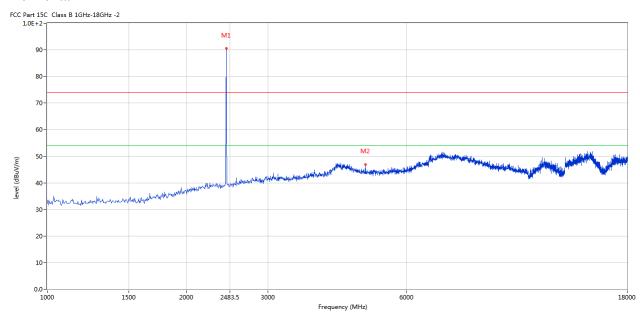
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Please refer to the following test plots for details: Middle Channel-2441MHz

Horizontal



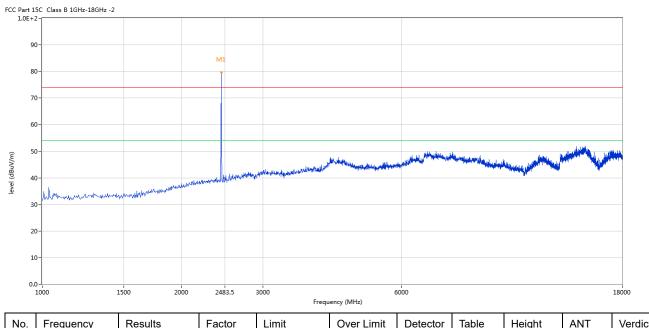
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	90.53	-3.57	114.0	-23.47	Peak	250.00	100	Horizontal	Pass
2	4879.280	46.81	3.20	74.0	-27.19	Peak	101.00	100	Horizontal	Pass

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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	79.67	-3.57	114.0	-34.33	Peak	172.00	100	Vertical	Pass

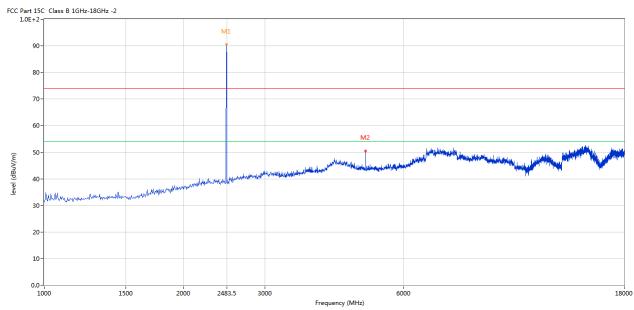
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Please refer to the following test plots for details: High Channel-2480MHz

Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	90.50	-3.57	114.0	-23.50	Peak	88.00	100	Horizontal	Pass
2	4960.010	50.51	3.36	74.0	-23.49	Peak	88.00	100	Horizontal	Pass

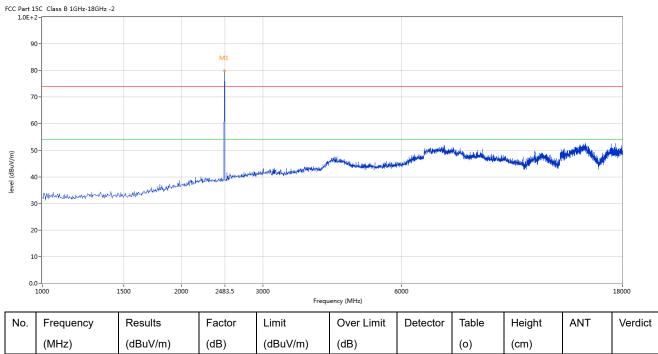
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Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	79.82	-3.57	114.0	-34.18	Peak	274.00	100	Vertical	Pass

Note: (1) Emission Level = Reading Level + Antenna Factor + Cable Loss-Amplifier

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

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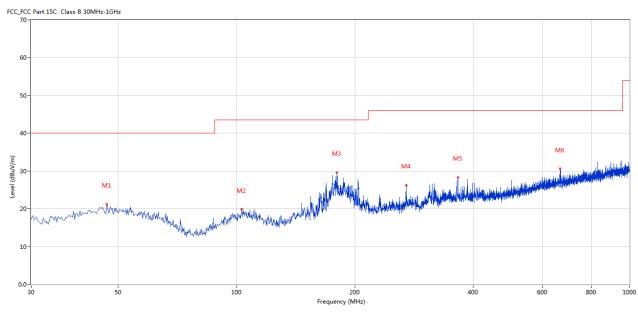


B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

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	46.728	21.24	-11.44	40.0	18.76	Peak	240.00	100	Horizontal	Pass
2	102.974	19.84	-13.38	43.5	23.66	Peak	5.00	100	Horizontal	Pass
3	180.070	29.60	-15.31	43.5	13.90	Peak	314.00	100	Horizontal	Pass
4	270.015	26.19	-11.75	46.0	19.81	Peak	72.00	100	Horizontal	Pass
5	366.021	28.30	-9.47	46.0	17.70	Peak	13.00	100	Horizontal	Pass
6	666.403	30.55	-4.50	46.0	15.45	Peak	66.00	100	Horizontal	Pass

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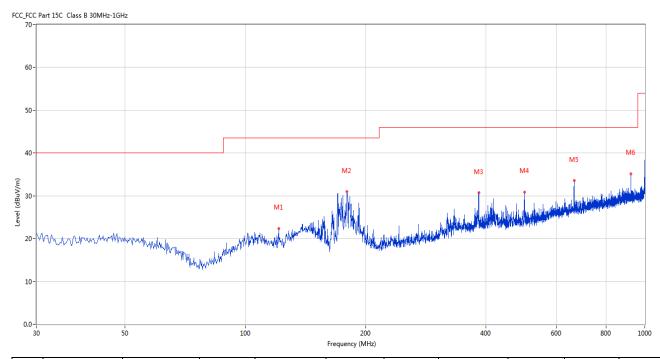


Radiated Emission In Vertical (30MHz----1000MHz)

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	121.157	22.40	-15.59	43.5	21.10	Peak	229.00	100	Vertical	Pass
2	179.585	30.94	-15.36	43.5	12.56	Peak	195.00	100	Vertical	Pass
3	383.962	30.71	-9.16	46.0	15.29	Peak	64.00	100	Vertical	Pass
4	499.848	30.85	-6.90	46.0	15.15	Peak	29.00	100	Vertical	Pass
5	666.403	33.52	-4.50	46.0	12.48	Peak	18.00	100	Vertical	Pass
6	923.389	35.15	-1.79	46.0	10.85	Peak	18.00	100	Vertical	Pass

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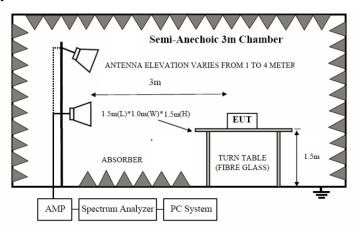


7. Band Edge

7.1 Test Method and test Procedure:

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

7. 2 Radiated Test Setup



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

7.3 Configuration of the EUT

Same as section 5.3 of this report

7.4 EUT Operating Condition

Same as section 5.4 of this report.

7.5 Band Edge Limit

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

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

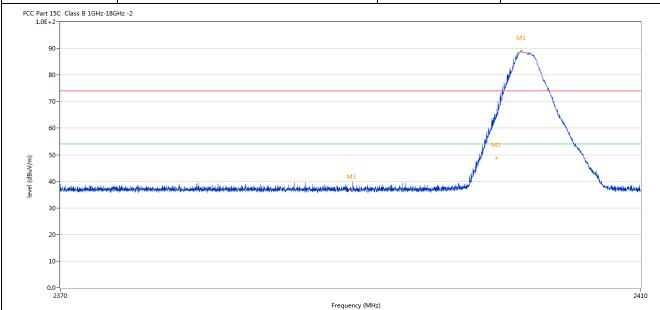
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7.6 Test Result

Product:	Wireless Mechanical Gaming Keyboard	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2401.732	88.99	-3.57	74.0	14.99	Peak	86.00	100	Horizontal	N/A
2	2400.000	64.10	-3.57	74.0	-9.90	Peak	77.00	100	Horizontal	Pass
2**	2400.000	48.82	-3.57	54.0	-5.18	AV	77.00	100	Horizontal	Pass
3	2390.000	36.73	-3.53	74.0	-37.27	Peak	111.00	100	Horizontal	Pass

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Product:		Wireless	Mechanical	Gaming Key	board	Detect	or		Vertical		
	Mode	J	Keeping Transmitting			Test Vol	tage	ige		DC3.7V	
Te	mperature	ure 24 deg. C,				Humidity	ity	56% RH			
Te	est Result:		Pa	SS							
C Part 1	LSC Class B 1GHz-18GHz	: -2			•		1				
1.02+											
g	0-							M1			
8	80-							MI.			
7	70-										
6	60-						J		\		
. 5	60-						- /		1		
. 5	10-				M3		M2 •				
4	Harris Marillan Marie Control	ilikeraduran di dadi perseduran ini	handid of the Land Day of the land	ha nday grand digi dana ayada dada ganad	Historian de provincia de la compansión de	Paris Control of the	Haile of halfinger		W. K. K. W.	Nickella Marie	
3	0-										
2	10-										
1	.0-										
	.0- 2370									2	
0					Frequency (MHz)						
0.						Detector	Table	Height	ANT	Verdi	
	Frequency	Results	Factor	Limit	Over Limit						
	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)		(o)	(cm)			
No.						Peak	(o) 12.00	(cm) 100	Vertical	N/A	
No.	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			` ′	Vertical Vertical		
No. 1 2 2**	(MHz) 2401.882	(dBuV/m) 79.46	(dB) -3.57	(dBuV/m) 74.0	(dB) 5.46	Peak	12.00	100	1	N/A Pass Pass	

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2**

2483.500

40.16

-3.57

54.0

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F	Product:	Wireless	Mechanic	al Gaming Key	yboard	Po	olarity		Horizont	al		
	Mode		Keeping T	ransmitting		Test Voltage D		DC3.7\	DC3.7V			
Tei	mperature		24 deg. C, Humidity			56% RH		I				
Test Result:												
Part 15	5C Class B 1GHz-18GHz -	2						•				
			M1									
90)-		م کارس	N								
80)-		- /-									
70)-		1	1								
60)-		الرم	'\								
50			'									
30	,-			M2	N.							
40)-	Andrew Hilliam Control			White spiriting	the feet of the second	political probability and private	halistera de la competition de la comp	A STATE OF THE PROPERTY OF THE PARTY OF THE	morphis t.		
30)-											
20)-											
10)-											
0.0)-			2483.5 Freq	quency (MHz)					2500		
0.0)-	Results	Factor	Freq	quency (MHz) Over Limit	Detector	Table	Height	ANT			
0.0)- - - 2470	Results (dBuV/m)	Factor (dB)	Limit	1	Detector	Table (o)	Height (cm)	ANT			
0.0	Frequency			Limit (dBuV/m) (Over Limit	Detector		_	ANT Horizontal	2500 Verd		

-13.84

ΑV

88.00

100

Horizontal

Pass

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]	Product:	Wireless Mechanical Gaming Keyboa						Vertical			
	Mode	Keeping Transmitting				Test Vo	Voltage DC3.7		DC3.7V		
Te	mperature 24 deg. C,				Humio	lity	56% RH				
Te	est Result:		Pa	SS							
	rt 15C Class B 1GHz-18GH	lz -2			•						
	90-		N	<i>N</i> 1							
	80-										
	70-		1								
	60-		y de la companya de								
	00-		J ^y								
(//m)	50-		1	M2							
el (dBuV/m)	40	محمد ووادر والمراجد والمراجد والمراجد والمراجد والمراجد		M2	hoppy was the same of the same	التربية المتوافي والمتوافي والمتوافق المتوافق والمتوافق	all Marina, hay da i hii dh	بعادل الشردان أرار فراعات	والمساورة والمنافئة والمنافذة والمنافذ والمنافذة والمنافذة والمنافذة والمنافذة والمنافذة والمنافذة والمنافذ والمنافذ والمنافذ والمنافذ والمنافذ والمنافذ والمنافذ والم	مرابا المنافعة المسافعة	
level (dBuV/m)	40-	المتعارض والمتعارض والمتعا		M2	had and always and to see for sufficient and suggestions of the second s		at photograph and right dis	بعاب الخورد أو البراغ والعاس	ingeridd yr dag yn ddiffedd y gallegon	ng sirekgilah kigi	
level (dBuV/m)	40-	inga da ayan d		M2	had we have a selection of the property of the design of the selection of	કાર્યો જોઈ કર્યો હતા. કરી કર્યો કોઇ કર્યો કોઇ કરો કરો કરો હતા. કરી કરો	علايات والمراجع والم	معادر سرادا فرسد أدار بدارا في دا دواس	માં ભાગમાં કે	nagazira Nagatata L iga,	
level (dBuV/m)	40-	المتعارض الم		M2	hope was always and construct on a spiritual surface	neditalisti orași din din din din din din din din din di	all the circulus and a letter than		ing distributed by a second distributed by a second distributed by a second distributed by a second distributed	engrative Magadiade A _a l yap.	
level (dBuV/m)	40-	فتمييه المتعادية والمتعادية والمت		M2	had an align a had to consider a supply and an house	inatelulik ocu terd tered serbinul	att, dis et co _n ch _a s des ides du	polity i një saje de sayviji ku naden	ત્રાહ્મીની કરી જ અને કોર્યોની અમેરા મા	ng italiginis kiga	
level (dBuV/m)	30- 20-	discourse annotation of the second		M2		naktivis on skul for skul for skul for skul	at the strange of the state of	natering in the second second second	ngelidest en melijkab soskern	magnika Magnirirka kindir	
level (dBuV/m)	30- 20-	inga, in a garaba di sensi penneb		M2		neathful and the district and the second and the se	att, Angling de printe de de la constantina del constantina del constantina de la co	participate de la secución de la sec	ngahidipakeran dekiladeran deren	2500	
o.	30- 20- 10-	Results	Factor	Z483.	5	Detector	Table	Height	ANT	2500	
	30 - 20 - 10 - 2470		Factor (dB)		5 Frequency (MHz)						
	30- 20- 10- 0.0- 2470	Results		Limit	5 Frequency (MHz)		Table	Height		2500	

Note: 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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9.0 20dB Bandwidth Measurement

Test Configuration



Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW.

The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

Limit

N/A

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Span 3 MHz

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Test Result

GFSK Product:	Wireless Machanical	Coming Vayboard	Test Mode:	Vaan transmittina		
Mode				Keep transmitting DC3.7V		
Temperature			Test Voltage Humidity			
Test Result:	24 deg. Pass		Detector	56% RH PK		
20dB Bandwidth	972kF		Detector			
Ref 10 dE 10 -0 -20 -30		* RBW 30 * VBW 10 0 dB * SWT 5) kHz Marke 00 kHz ms Marke Delta	r 2 [T1]		
-40			V	3DB		
1						
-60						
-70						
-80						

Date: 12.DEC.2023 17:09:29

Center 2.402 GHz

300 kHz/

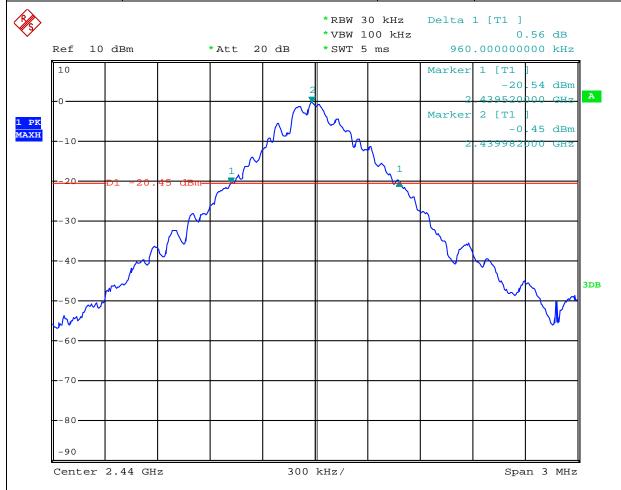
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GFSK			
Product:	Wireless Mechanical Gaming Keyboard	Test Mode:	Keep transmitting
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	960kHz		



Date: 12.DEC.2023 17:10:46

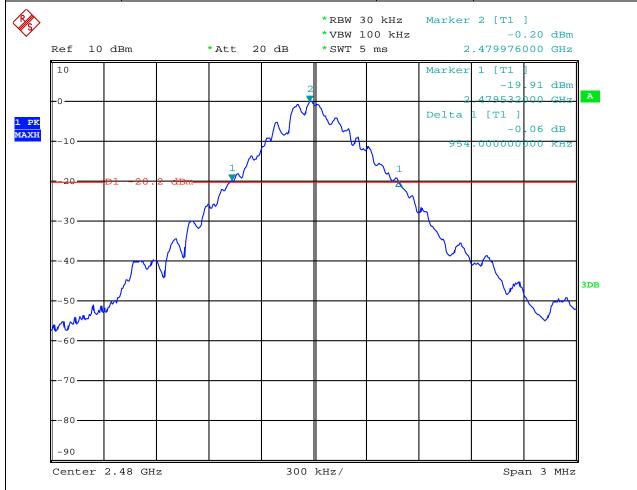
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GFSK			
Product:	Wireless Mechanical Gaming Keyboard	Test Mode:	Keep transmitting
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	954kHz		



Date: 12.DEC.2023 17:12:51

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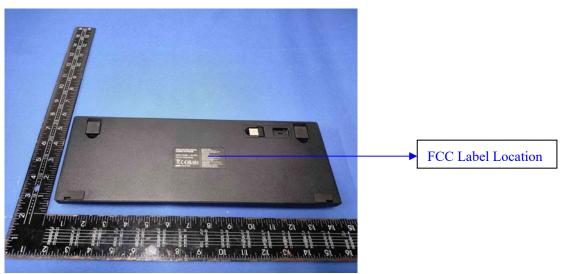
10.0 FCC ID Label

FCC ID: TUVET-8619A

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

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

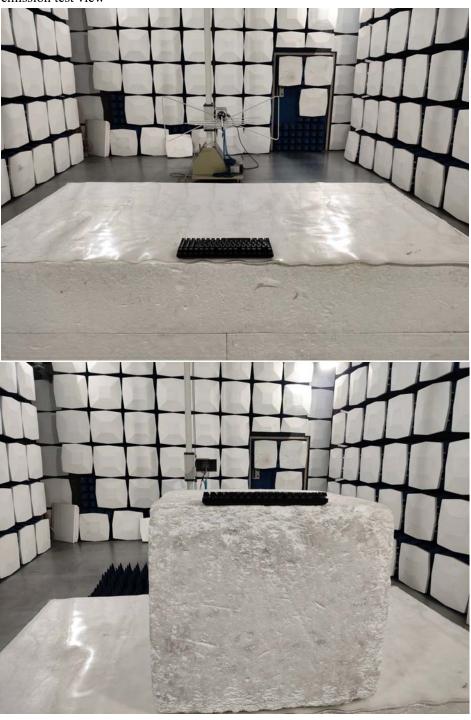
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Radiated emission test view



11.2 Photographs – EUT

Please refer test report TW2312036-01E

-- End of the report--

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

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