



Report No.:	TW2105198-02E
File reference No.:	2022-03-09
Applicant:	Eastern Times Technology Co.,Ltd
Product:	MECHANICAL GAMING KEYBOARD
Model No.:	K598P-KBS, ET-8494, K598P-KBS(EU), K598P-KNS, K598P-KNS(EU), K598P-KRS, K598P-KRS(EU), K598P-WNS, K598P-WNS(EU), K598P-WRS, K598P-WRS(EU), K598P-WBS, K598P-WBS(EU)
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 Tong Terry Tang Manager	
Terry Tang	

Dated:

March 09, 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



## **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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#### 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<br/>Village, Nanshan District, Shenzhen, ChinaTelephone:(755) 83448688Fax:(755) 83442996Site on File with the Federal Communications Commission – United SatesRegistration Number: 744189For 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:	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:	REDRAGON
Additional Trademark:	N/A
Model Number:	K598P-KBS
Additional Model Name	ET-8494, K598P-KBS(EU), K598P-KNS, K598P-KNS(EU), K598P-KRS,
	K598P-KRS(EU), K598P-WNS, K598P-WNS(EU), K598P-WRS,
	K598P-WRS(EU), K598P-WBS, K598P-WBS(EU)
Serial No.:	RDK598P-KBS21052100335
Rating:	DC5V, 560mA or DC3.7V, 300mA
Battery:	DC3.7V, 3000mAh Li-ion battery
Modulation Type:	GFSK
Operation Frequency:	2402-2480MHz
Channel Separate:	1MHz
Channel Number:	79
Antenna Designation	PCB antenna with gain -1.85dBi maximum (Declared by the Manufacturer)

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#### 1.4 Submitted Sample: 1 pc

- 1.5 Test Duration 2021-05-13 to 2022-03-09
- 1.6 Test Uncertainty Conducted Emissions Uncertainty =3.6dB Radiated Emissions below 1GHz Uncertainty =4.7dB Radiated Emissions above 1GHz Uncertainty =6.0dB Conducted Power Uncertainty =6.0dB Occupied Channel Bandwidth Uncertainty =5% Conducted Emissions Uncertainty =3.6dB Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

#### 1.7 Test Engineer

Andy - Xing

The sample tested by

Print Name: Andy Xing

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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	Schwarebeck	VULB9163	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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The EUT has been tested according to the following specifications:

#### 3.0 **Technical Details**

#### 3.1 Summary of test results

The EOT has been tested according to th			
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

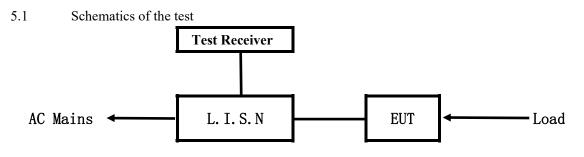
#### 4.0 **EUT Modification**

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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## 5. Power Line Conducted Emission Test



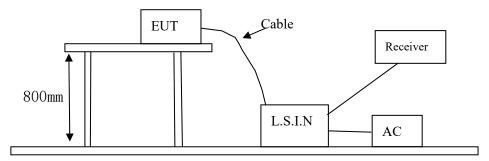
EUT: Equipment Under Test

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 500 hm/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

Device	Manufacturer	Model	FCC ID
MECHANICAL GAMING KEYBOARD	Eastern Times Technology Co.,Ltd	K598P-KBS, ET-8494, K598P-KBS(EU), K598P-KNS, K598P-KNS(EU), K598P-KRS, K598P-KRS(EU), K598P-WNS, K598P-WNS(EU), K598P-WRS, K598P-WRS(EU), K598P-WBS, K598P-WBS(EU)	TUVET-8494

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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 µ V)		
(MHz)	Quasi-peak Level	Average Level	
$0.15~\sim~0.50$	66.0~56.0*	56.0~46.0*	
$0.50~\sim~5.00$	56.0	46 0	
$5.00~\sim~30.00$	60.0	50.0	

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

2. The tighter limit shall apply at the transition frequencies

#### 5.6 Test Results:

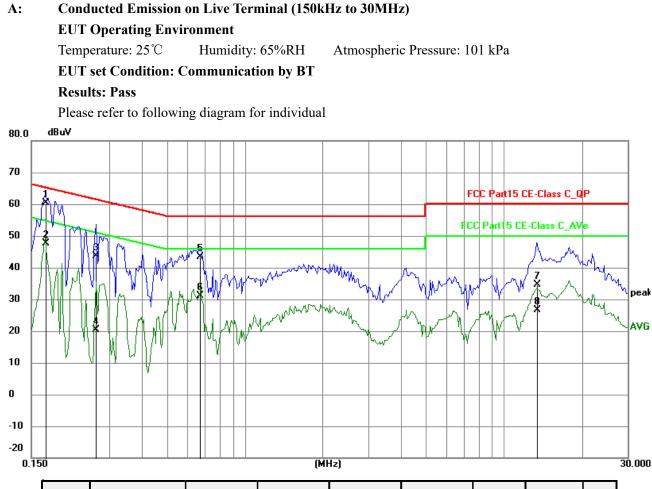
Pass

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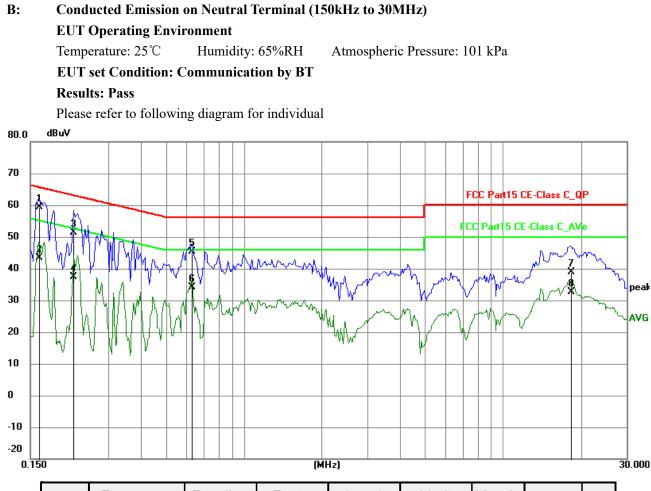


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1695	50.65	9.77	60.42	64.98	-4.56	QP	Ρ
2	0.1695	37.76	9.77	47.53	<mark>54.98</mark>	-7.45	AVG	Ρ
3	0.2670	33.95	9.75	43.70	61.21	-17.51	QP	Р
4	0.2670	10.73	9.75	20.48	51.21	-30.73	AVG	Р
5	0.6687	33.68	9.78	43.46	<u>56.00</u>	-12.54	QP	Р
6	0.6687	21.43	9.78	31.21	46.00	-14.79	AVG	Р
7	13.3818	24.27	10.31	34.58	60.00	-25.42	QP	Р
8	13.3818	16.20	10.31	26.51	50.00	-23.49	AVG	Ρ

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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1617	49.58	9.78	59.36	65.38	-6.02	QP	Ρ
2	0.1617	33.60	9.78	43.38	55.38	-12.00	AVG	Ρ
3	0.2202	41.64	9.75	51.39	62.81	-11.42	QP	Р
4	0.2202	27.67	9.75	37.42	<mark>52.81</mark>	-15.39	AVG	Ρ
5	0.6297	35.49	9.78	45.27	56.00	-10.73	QP	Ρ
6	0.6297	24.40	9.78	34.18	46.00	-11.82	AVG	Р
7	18.2880	28.30	10.58	38.88	60.00	-21.12	QP	Р
8	18.2880	22.01	10.58	32.59	50.00	-17.41	AVG	Ρ

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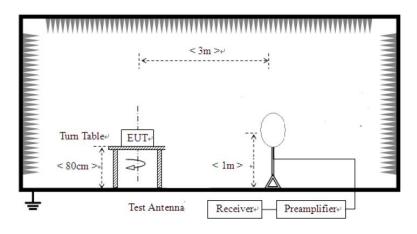


#### 6 Radiated Emission Test

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

### Block diagram of Test setup

For radiated emissions from 9kHz to 30MHz

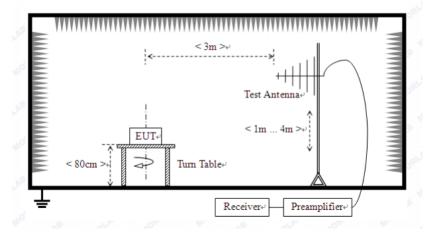


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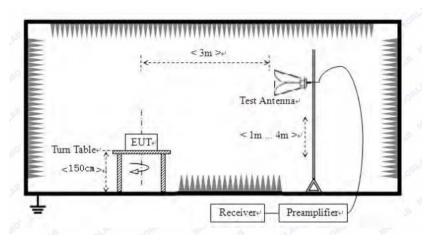
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For radiated emissions from 30MHz to1GHz



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	ength of Fundame	ntal (3m)	Field S	trength of Harmo	nics (3m)
(MHz)	mV/m	dBu	V/m	uV/m	dBu	V/m
2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)

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.

1		
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  $(dBuV) = 20 \log RF$  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 Fundamental & Harmonics Radiated Emission Data** A

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

#### Horizontal

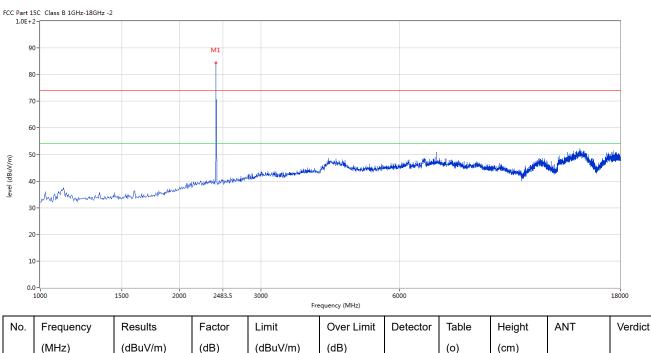
1

2402.010

84.35

-3.57

114.0



-29.65

(o)

108.00

100

Horizontal

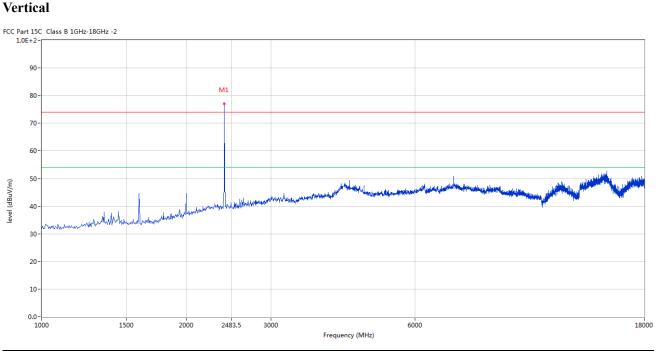
Pass

Peak

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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402.010	77.22	-3.57	114.0	-36.78	Peak	205.00	100	Vertical	Pass

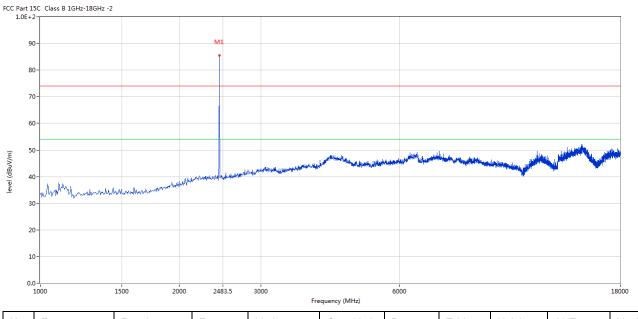
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## Please refer to the following test plots for details: Middle Channel-2441MHz

#### Horizontal

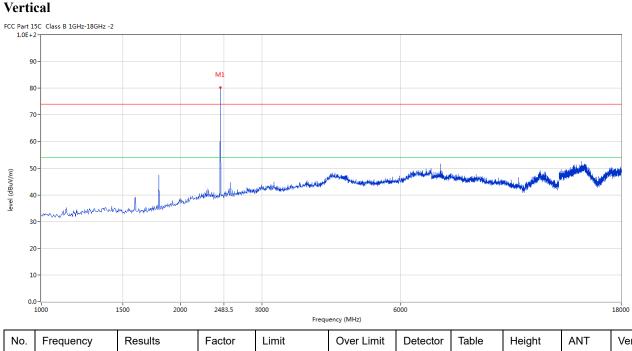


Ν	о.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1		2441.010	85.51	-3.57	114.0	-28.49	Peak	249.00	100	Horizontal	Pass

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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441.010	80.14	-3.57	114.0	-33.86	Peak	149.00	100	Vertical	Pass

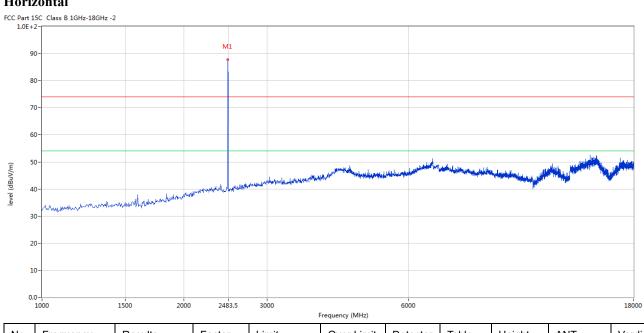
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### Please refer to the following test plots for details: High Channel-2480MHz

#### Horizontal

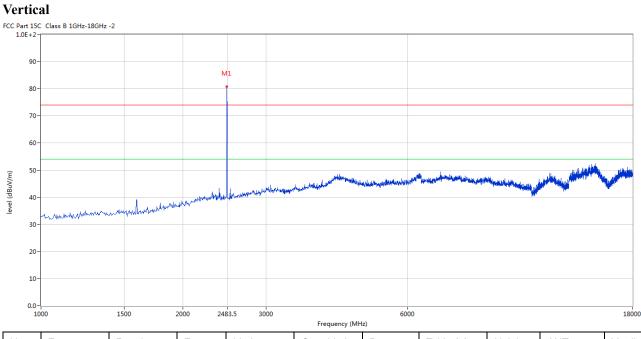


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480.009	87.68	-3.57	114.0	-26.32	Peak	133.00	100	Horizontal	Pass

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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2480.009	80.22	-3.57	114.0	-33.78	Peak	159.00	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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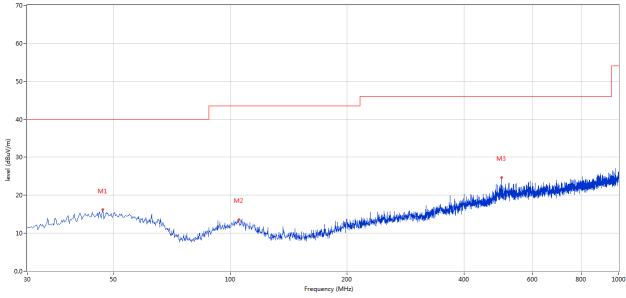
## B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

## Results: Pass

Please refer to following diagram for individual

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



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	46.971	16.15	-11.45	40.0	-23.85	Peak	19.00	100	Horizontal	Pass
2	105.156	13.60	-13.23	43.5	-29.90	Peak	42.00	100	Horizontal	Pass
3	500.090	24.62	-6.91	46.0	-21.38	Peak	8.00	100	Horizontal	Pass

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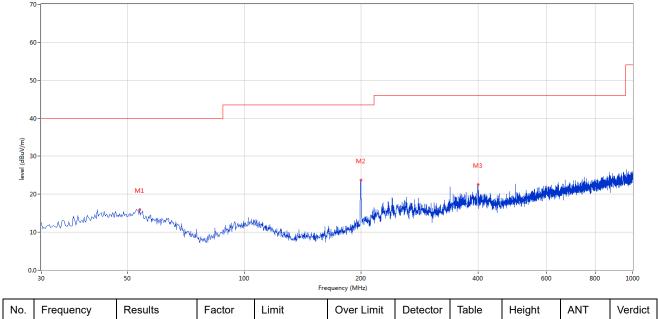
#### Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

#### Results: Pass

Please refer to following diagram for individual

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



INU.	riequency	Results	Facior	LIIIII		Delector	Table	Tielgin	ANT	Veruici
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	53.759	16.01	-11.53	40.0	-23.99	Peak	266.00	100	Vertical	Pass
2	199.950	23.76	-13.45	43.5	-19.74	Peak	360.00	100	Vertical	Pass
3	399.720	22.58	-8.57	46.0	-23.42	Peak	286.00	100	Vertical	Pass

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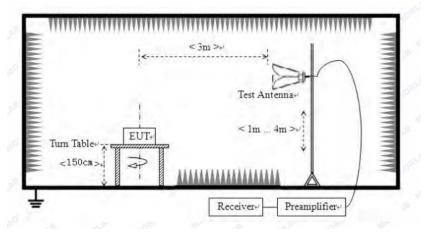


### 7. Band Edge

### 7.1 Test Method and test Procedure:

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

## 7.2 Radiated Test Setup



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

## 7.3 Configuration of The EUT

Same as section 5.3 of this report

## 7.4 EUT Operating Condition

Same as section 5.4 of this report.

## 7.5 Band Edge Limit

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

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#### 7.6 Test Result

-	Product:	MECHAN	ICAL GAN	/ING KEYBO	DARD	Polarity		Н	orizontal	
	Mode	K	Leeping Tra	ansmitting	Г	Test Voltag	je	I	DC3.7V	
Te	mperature		24 deg	g. C,		Humidity		5	56% RH	
Τe	est Result:		Pas	SS						
2 Part 1 1.0E+	15C Class B 1GHz-18GHz	-2					•			_
9	00-							M1		
								J.	λ.	
8	30 -								¥.	
7	70-							- /		_
6	50 -								<u> </u>	_
									- Y	
5	50 -								1	
5						МВ	All Aletter	M2	N N	
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4 3 2 1	10 - <mark>dayfardaf (f. 1. and 1. f. 1. dag 10 - 20 -</mark>	Andreinen sin sin sin sin sin sin sin sin sin si	nomen men kine skrem ki strin skr			MB	Adu da latina.	M2 •		2410
4 3 2 1	10			Freq	uency (MHz)			Height		2410
4 3 2 1	10	Results	Factor	Freq	uency (MHz) Over Limit	Detector	Table	Height		2410
4 3 2 1 0. <b>NO.</b>	10			Freq	uency (MHz)			Height (cm)		2410
4 3 2 1	10	Results (dBuV/m)	Factor (dB)	Frequ Limit (dBuV/m)	<sup>uency (MHz)</sup> Over Limit (dB)	Detector	Table (o)	(cm)	ANT	2410 Verdic
4 3 2 1 0. <b>No.</b>	10	Results (dBuV/m) 84.20	Factor (dB) -3.57	Freq Limit (dBuV/m) 74.0	uency (MHz) Over Limit (dB) 10.20	Detector Peak	Table (o) 112.00	(cm) 100	ANT	2410 Verdic

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Product:		MECHAI	NICAL GA	MING KEY	BOARD	Detector		Vertical			
	Mode		Keeping T	ransmitting		Test Voltage		DC3.7V			
Te	mperature		24 de	eg. C,		Humidi	ty	5	6% RH		
Τe	est Result:		Ра	ass							
C Part 1 1.0E+	15C Class B 1GHz-18GHz	-2					·				
9	90-										
8	30 -							M	1		
7	70-							p	N.		
								1			
6	50 -							/	<u>\</u>		
. 5									N		
. 5	50 -								$ \rightarrow $		
. 5		Madinio internetiatione descente		lling - universities, substants	al maatalata di sata sadi				- Walth		
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4 3 2 1	10 - <b>Jug A. J. Karl Karl A. J. J. J.</b> 10	idhelistespillanisespilipense	nalalashkasidi		requency (MHz)			• M2		2410	
4 3 2 1	10 - <mark></mark>	Results	Factor			Detector	Table	M2 • Height	ANT	2410	
4 3 2 1	10			Fr	requency (MHz)		Table (o)	Height (cm)	1	2410	
4 3 2 1 0.	10	Results	Factor	Fr	requency (MHz)			•	1	2410	
4 3 2 1 0. <b>No.</b>	10	Results (dBuV/m)	Factor (dB)	Fr Limit (dBuV/m)	requency (MHz) Over Limit (dB)	Detector	(0)	(cm)	ANT	2410 Verdic	
4 3 2 1	<sup>10</sup> - 1101 - 11	Results (dBuV/m) 77.02	Factor (dB) -3.57	Fr Limit (dBuV/m) 74.0	requency (MHz) Over Limit (dB) 3.02	Detector Peak	(o) 153.00	(cm) 100	ANT	2410 Verdic	

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-	Product:	MECHA	NICAL GA	AMING KEY	YBOARD	Pola	rity		Horizontal		
	Mode		Keeping	Transmitting		Test Vo	Test Voltage		DC3.7V		
Te	emperature		24 deg. C,					ity 56% R			
Te	est Result:										
CC Part 1 1.0E+	15C Class B 1GHz-18GHz	-2				•					
	90-										
-	50-		Jeren and a second	N4							
8	80 -		A MARK								
7	70-										
6	60 -		1								
				<u> </u>							
. 5	50-		μ	N	h						
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W/AAA9 19/49 2 1 0	40 - - - - - - - - - -		Factor (dB)		5 Frequency (MHz)				1	2500	
(مرابط ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	10 - 40 m. 410 for the set of 10 30 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -	Results		Limit	5 Frequency (MHz)		Table	Height	1	2500	
۳/۱۳۵۵ ۲ ۱ ۱ ۵ ۷	40	Results (dBuV/m)	(dB)	Limit (dBuV/m)	5 Frequency (MHz) Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	2500 Verdic	

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]	Product:	MECHAN	VICAL GA	MING KEYBO	DARD	Detecto	r	V	<i>Tertical</i>	
	Mode		Keeping T	ransmitting		Test Volta	ige	D	C3.7V	
Te	emperature		24 de	eg. C,		Humidit	y	56% RH		
Тс	est Result:		Ра	ass						
1.0E+ 9 8	15C Class B 1GHz-18GHz -	2	all and the second s	THE STREET						
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((( 5 ( ( // Ngp) 4 3 2 1 0.	50 - 40 - <mark>10 - 10 - 10 - 10 - 10 - 10 - 10 - </mark>	Results	Factor	2483.5 Frequer	ency (MHz)	Detector	Table	Height	ANT	2500
(Ψ//ngp ) =	50 - 40 - <b>111 - 111 - 111 - 111 - 111 - 111</b> 30 - 20 - 10 - 10 - 2470		Factor (dB)	2483.5 Frequent	ency (MHz)				T	2500
(Ψ//ngp ) =	50 - 40 -	Results		2483.5 Frequent Limit ( (dBuV/m) (	ency (MHz) Over Limit		Table	Height	T	

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 -1.85dBi maximum. It fulfills the requirement of this section. Test Result: Pass

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

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9.0 20dB Bandwidt									
GFSK Modulation									
Product:	MECHANIC			OARD	Test Mo		Keep transmitting		
Mode	Kee	eping Trans			Test Vol Humid	-		C3.7V	
Temperature		24 deg. C,					56	5% RH	
Test Result:		Pass			Detect	or		РК	
20dB Bandwidth		1.521MF	łz						
<b>A</b>	Delta	1 [T1]		RBW	30 ]	cHz	RF Att	20 dB	
Ref Lvl		-0.	.02 dB	VBW	100 }	KHZ			
10 dBm		1.521042	208 MHz	SWT	8.5 r	ns	Unit	dBn	n
10					<b>v</b> 1	[T1]	-2	1.93 dBm	]
							2.4012	6954 GHz	A
0			~		<b>1</b>	[T1]	-	0.02 dB	
		$\sim$		$\sim$			1.5210	4208 MHz	
-10				<u> </u>	<b>▽</b> <sub>2</sub>	[T1]		1.75 dBm	
			ſ	L L	m		2.4020	0902 GHz	
-20 -21 -21 -							L		
D1 -21.7	5 dBm								<b>1MA</b>
-30	$\sim$								
50									
-40									
-50									
-60									
-70									
-80									
-90									
Center 2.	402 GHz		300	kHz/			Sp	an 3 MHz	
Date: 22.		3:13:23							

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GFSK Modula								
Product:		GAMING KEYBOA	ARD	Test Mode:		Keep transmitting		
Mode		g Transmitting	Test Voltage	;	DC3.7V			
Temperature	2	Humidity		56% RH				
Test Result:					PK			
20dB Bandwidth	1.	.359MHz						
<b>R</b>	Delta 1	L [T1]	RI	30 k	Hz R	F Att	20 dB	
Ref Lvl		-0.09 dB	VI	3W 100 k				
10 dBm	1	L.35871743 MHz	SI	WT 8.5 m	s U	nit	dBn	n
				▼1	[T1]	-21	l.12 dBm	A
			2			2.44032	966 GHz	
0		$\sim$	ή.	<b>1</b>	[T1]	- (	0.09 dB	1
			J.	ן ס_2	[T1]	1.35871	743 MHz 1.59 dBm	
-10						2.44100	902 GHz	ĺ
	1	$ \land $			1			
	59 dBm				<u> </u>			
1MAX	لمريح ا	Č l						<b>1MA</b>
- 30								
	~						_	
-40								
-50							~	
-60								
-70								
- 80								
-90								
	.441 GHz	300	kHz/			Spa	an 3 MHz	٥
Date: 22	2.FEB.2022 13	:17:01						

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Product:	MECHANICAL GAMING KEYBOARD					Test Mode:		Keep transmitting		
Mode	Keeping Transmitting 24 deg. C,				7	Test Voltage Humidity		DC3.7V 56% RH		
Temperature										
Test Result:		Pass				Detector			РК	
0dB Bandwidth		1	l.226MHz							
<b>A</b>		Delta 1	[T1]		RBW	30 k	Hz	RF Att	20 dB	
Ref Lvl				05 dB	VBW					
10 dBm		1	.226452	91 MHz	SWT	8.5 n	ns	Unit	dBn	1
10						▼1	[T1]	-2	1.24 dBm	A
0					2			2.47938	8978 GHz	
0				$\sim$		<b>▲</b> 1	[T1]	1.2264	0.05 dB 5291 MHz	
1.0			(	$\sim$	my	▼2	[T1]	1.2204:	5291 MHz 1.61 dBm	
-10					4	5		2.4800	902 GHz	
20		1	$\sim$ / $\vee$				1			
-20 -D1 -21. 1MAX	61 dBm-		$\nabla$							1MA
		$\sim$								
-30										
-40									$\sum_{n}$	
FO										
-50										
6.0										
-60										
7.0										
-70										
-80										
-90										
-90 Center 2	.48 GHz	2		300	kHz/	1		Spa	an 3 MHz	

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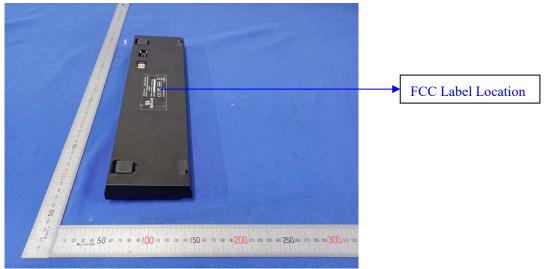
#### 10.0 FCC ID Label

#### FCC ID: TUVET-8494

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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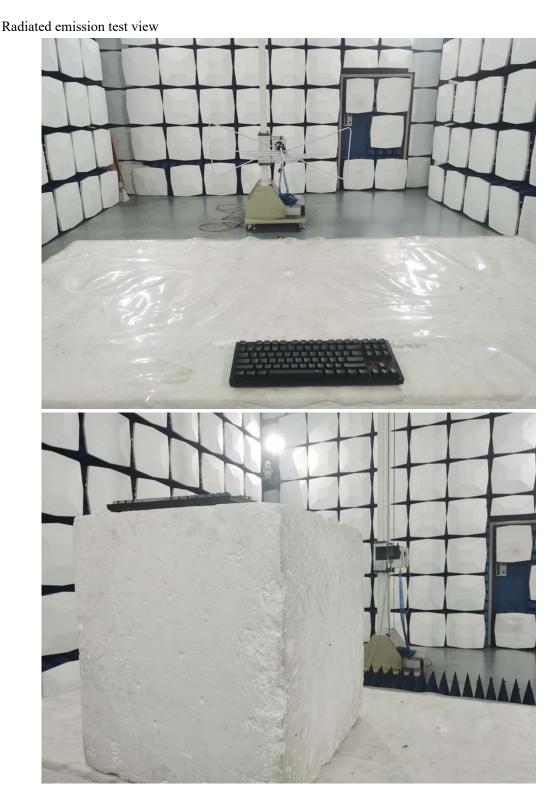
#### 11.0 Photo of testing

11.1 Conducted test View--



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#### 11.2 Photographs - EUT



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Photographs-EUT

Outside View





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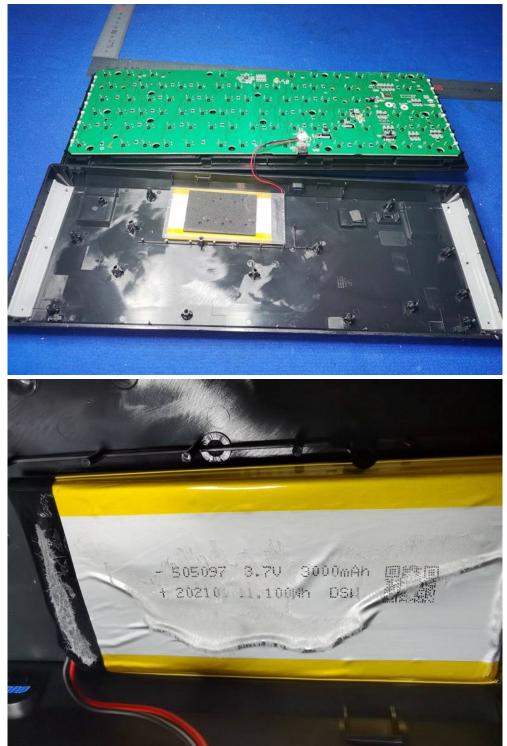
Outside View



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Inside view



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Inside view



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Inside view



--End of the report--

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