



Report No.: FCC1908240 File Reference No.: 2019-09-19

Applicant: Eastern Times Technology Co., Ltd

Product: WIRED & WIRELESS MECHANICAL KEYBOARD

Model No.: K590-RE, ET-8333, K596RGB

Brand Name: REDRAGON

Test Standards: FCC Part 15.249

Test Result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.4&FCC Part 15 Subpart C, Paragraph 15.249 regulations for the evaluation of

electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated: September 19, 2019

Results appearing herein relate only to the sample tested

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

SHENZHEN TIMEWAY TESTING LABORATORIES

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

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

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Special Statement:

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

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

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

CNAS-LAB Code: L2292

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

FCC-Registration No.: 744189

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

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

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

A2LA (Certification Number:5013.01)

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

Date: 2019-09-19



Test Report Conclusion

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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: 13077806581/0769-86800511

Fax: --

1.3 Description of EUT

Product: WIRED & WIRELESS MECHANICAL KEYBOARD

Manufacturer: Eastern Times Technology Co., Ltd

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

Dongguan City, Guangdong, China

Brand Name: REDRAGON Model Number: K590-RE

Additional Model Name ET-8333, K596RGB

Input Voltage: DC5V (Hosted from PC) or Built-in DC3.7V, 9.25Wh Li-ion battery

Modulation Type: FSK

Operation Frequency 2410-2468MHz

Channel Separation 2MHz

Antenna Designation PCB antenna with gain 0dBi Max

1.4 Submitted Sample

2 Sample

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1.5 Test Duration

2019-08-29 to 2019-09-18

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

Terry Tang

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	2019-06-21	2020-06-20
LISN	R&S	EZH3-Z5	100294	2019-06-21	2020-06-20
LISN	R&S	EZH3-Z5	100253	2019-06-21	2020-06-20
Ultra Broadband ANT	R&S	HL562	100157	2019-06-21	2020-06-20
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2019-06-21	2020-06-20
Loop Antenna	EMCO	6507	00078608	2018-06-25	2021-06-24
Spectrum	R&S	FSIQ26	100292	2019-06-21	2020-06-20
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2019-06-21	2021-06-20
Horn Antenna	R&S	BBHA 9120D	9120D-631	2018-07-09	2021-07-08
Power meter	Anritsu	ML2487A	6K00003613	2019-08-22	2020-08-21
Power sensor	Anritsu	MA2491A	32263	2019-08-22	2020-08-21
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2018-07-04	2021-07-03
9*6*6 Anechoic			N/A	2018-02-07	2021-02-06
EMI Test Receiver	RS	ESVB	826156/011	2019-06-21	2020-06-20
EMI Test Receiver	RS	ESH3	860904/006	2019-06-21	2020-06-20
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2019-06-21	2020-06-20
Spectrum	HP/Agilent	E4407B	MY50441392	2019-06-21	2020-06-20
Spectrum	RS	FSP	1164.4391.38	2019-01-20	2020-01-19
RF Cable	Zhengdi	ZT26-NJ-NJ-8 M/FA		2019-06-21	2020-06-20
RF Cable	Zhengdi	7m		2019-06-21	2020-06-20
RF Switch	EM	EMSW18	060391	2019-06-21	2020-06-20
Pre-Amplifier	Schwarebeck	BBV9743	#218	2019-06-21	2020-06-20
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2019-06-21	2020-06-20
LISN	SCHAFFNER	NNB42	00012	2019-01-08	2020-01-07

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3.0 Technical Details

3.1 Summary of test results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.207	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 and RSS-210	Radiated Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	PASS	Complies

3.2 Test Standards

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

4.0 EUT Modification

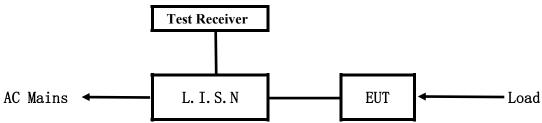
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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5. Power Line Conducted Emission Test

5.1 Schematics of the test

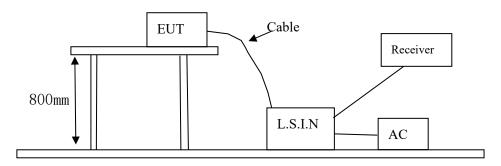


EUT: Equipment Under Test

5.2 Test Method and test Procedure

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

Block diagram of Test setup



5.3 Configuration of The EUT

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

One channels are provided to the EUT

A. EUT

Device	Manufacturer	Model	FCC ID
WIRED & WIRELESS	Eastern Times Technology	K590-RE, ET-8333,	
MECHANICAL	Co., Ltd	K596RGB	TUVDS-8333
KEYBOARD	Co., Ltd	KSTORGD	

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B. Internal Device

Device	Manufacturer	Model	FCC ID/SDOC
N/A			

C. Peripherals

Device	Manufacturer	Model	FCC ID/SDOC/DOC
PC	lenovo	TP00067A	DOC
Switch Power	lenovo	ADLX65NLC3A	DOC
Supply			

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.4 -2014

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.107 and 15.207

Engage out (MHz)	Class A Lir	nits (dB µ V)	Class B Limits (dB µ V)		
Frequency(MHz)	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level	
$0.15 \sim 0.50$	79.0	66.0	66.0~56.0*	56.0~46.0*	
$0.50 \sim 5.00$	73.0	60.0	56.0	46.0	
$5.00 \sim 30.00$	73.0	60.0	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

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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

EUT Operating Environment

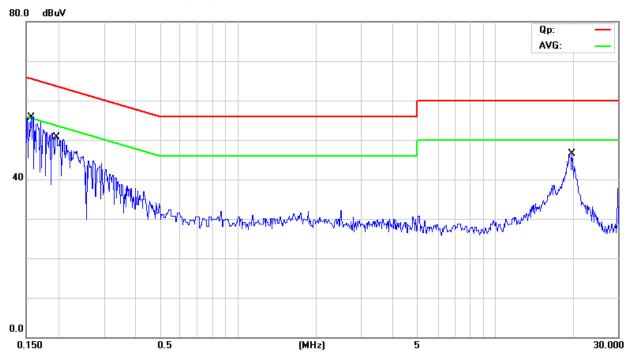
Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Transmitting

Equipment Level: Class B

Results: PASS

Please refer to following diagram for individual



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBu∀	dB	dBu∀	dBu∨	dB	Detector	Comment
1 *	0.1551	34.90	9.78	44.68	65.72	-21.04	QP	
2	0.1551	3.00	9.78	12.78	55.72	-42.94	AVG	
3	0.1970	29.70	9.75	39.45	63.74	-24.29	QP	
4	0.1970	2.40	9.75	12.15	53.74	-41.59	AVG	
5	19.8314	-4.90	10.67	5.77	60.00	-54.23	QP	
6	19.8314	-10.70	10.67	-0.03	50.00	-50.03	AVG	

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

EUT Operating Environment

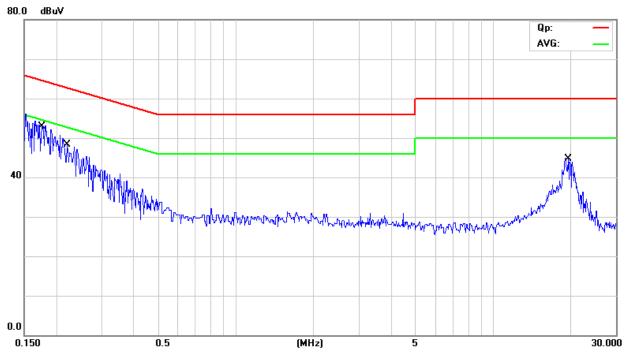
Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Transmitting

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBu∀	dB	dBu∀	dBu∨	dB	Detector	Comment
1 *	0.1760	31.70	9.77	41.47	64.67	-23.20	QP	
2	0.1760	4.00	9.77	13.77	54.67	-40.90	AVG	
3	0.2222	26.70	9.75	36.45	62.74	-26.29	QP	
4	0.2222	3.10	9.75	12.85	52.74	-39.89	AVG	
5	19.4533	-5.20	10.65	5.45	60.00	-54.55	QP	
6	19.4533	-10.90	10.65	-0.25	50.00	-50.25	AVG	

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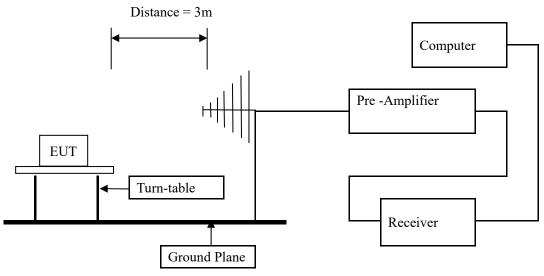
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6 Radiated Emission Test

- 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



- 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	ental (3m)	Field S	trength of Harmo	onics (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 μ V/m)
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. Battery full charged were used during tests.

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6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

Product:	WIRED & WIRELESS	Test Mode:	Keep transmitting-Low Channel
	MECHANICAL KEYBOARD		
Test Item:	Fundamental Radiated Emission	Temperature:	25℃
	Data		
Test Voltage:	DC3.7V	Humidity:	56%
Test Result:	Pass		

Frequency	Emission PK/AV	Horiz /	Limits PK/AV	Margin
(MHz)	(dBuV/m)	Vert	(dBuV/m)	(dB)
2410	86.85 (PK)	Н	114/94	-7.15
2410	83.81 (PK)	V	114/94	-10.19
4820	52.17 (PK)	Н	74/54	-1.83
4804	50.60 (PK)	V	74/54	-3.40
7230		H/V	74/54	
9640		H/V	74/54	
12050		H/V	74/54	
14460		H/V	74/54	
16870		H/V	74/54	
19280		H/V	74/54	
21690		H/V	74/54	
24100		H/V	74/54	

Note: (1) PK= Peak, AV= Average

- (2) Emission Level = Reading Level + Antenna Factor + Cable Loss Pre-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

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Product:	WIRED & WIRELESS	Test Mode:	Keep transmitting-Middle Channel
	MECHANICAL KEYBOARD		
Test Item:	Fundamental Radiated Emission	Temperature:	25℃
	Data		
Test Voltage:	DC3.7V	Humidity:	56%
Test Result:	Pass		

Frequency	Emission PK/AV	Horiz /	Limits PK/AV	Margin	
(MHz)	(dBuV/m)	Vert	(dBuV/m)	(dB)	
2440	87.58 (PK)	Н	114/94	-6.42	
2440	86.62 (PK)	V	114/94	-7.38	
4880	52.76 (PK)	Н	74/54	-1.24	
4880	51.00 (PK)	V	74/54	-3.00	
7320		H/V	74/54		
9760		H/V	74/54		
12200		H/V	74/54		
14640		H/V	74/54		
17080		H/V	74/54		
19520		H/V	74/54		
21960		H/V	74/54		
24400		H/V	74/54		

Note: (1) PK= Peak, AV= Average

- (2) Emission Level = Reading Level + Antenna Factor + Cable Loss Pre-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

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Product:	WIRED & WIRELESS	Test Mode:	Keep transmitting-High Channel
	MECHANICAL KEYBOARD		
Test Item:	Fundamental Radiated Emission	Temperature:	25℃
	Data		
Test Voltage:	DC3.7V	Humidity:	56%
Test Result:	Pass		

Frequency	Emission PK/AV Horiz /		Limits PK/AV	Margin
(MHz)	(dBuV/m)	Vert	(dBuV/m)	(dB)
2468	88.06 (PK)	Н	114/94	-5.94
2469	85.79 (PK)	V	114/94	-8.21
4936	52.61 (PK)	Н	74/54	-1.36
4936	52.94 (PK)	V	74/54	-1.06
7404	50.18 (PK)	Н	74/54	-3.82
7404	49.96 (PK)	V	74/54	-4.04
9872		H/V	74/54	
12340		H/V	74/54	
14808		H/V	74/54	
17276		H/V	74/54	
19744		H/V	74/54	
22212		H/V	74/54	
24680		H/V	74/54	

Note: (1) PK= Peak, AV= Average

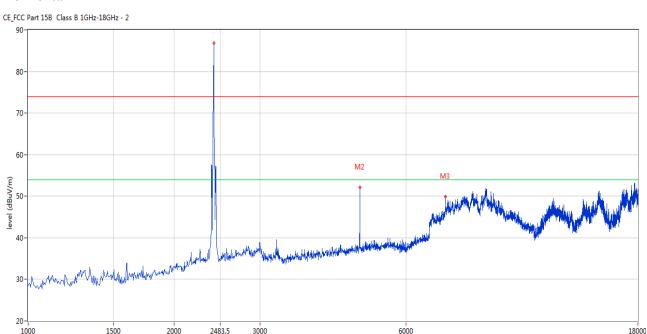
- (2) Emission Level = Reading Level + Antenna Factor + Cable Loss Pre-Amplifier
- (3)Margin=Emission-Limits
- (4)According to section 15.35(b), the peak limit is 20dB higher than the average limit
- (5) For test purpose, keep EUT continuous transmitting

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

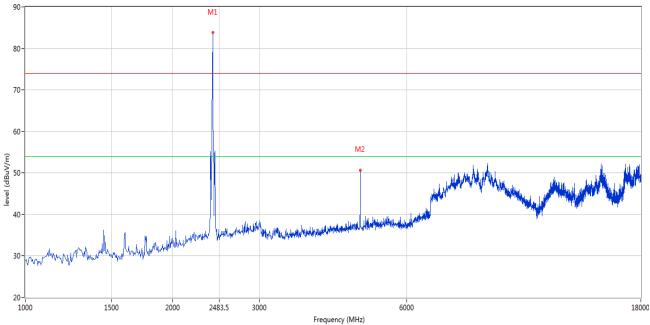
Horizontal



Frequency (MHz)

Vertical





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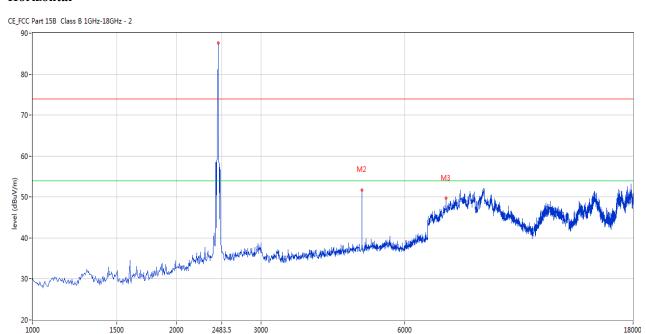
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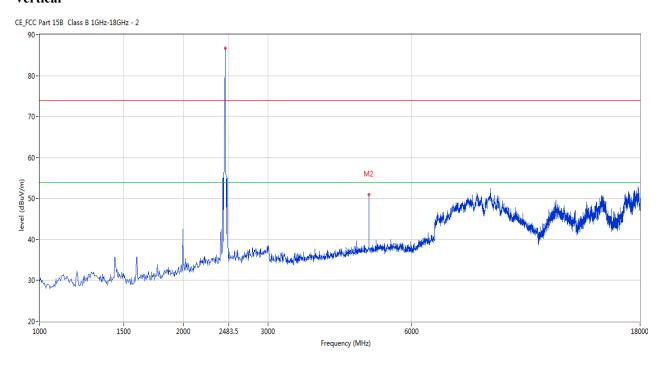
Please refer to the following test plots for details: Middle Channel

Horizontal



Frequency (MHz)

Vertical



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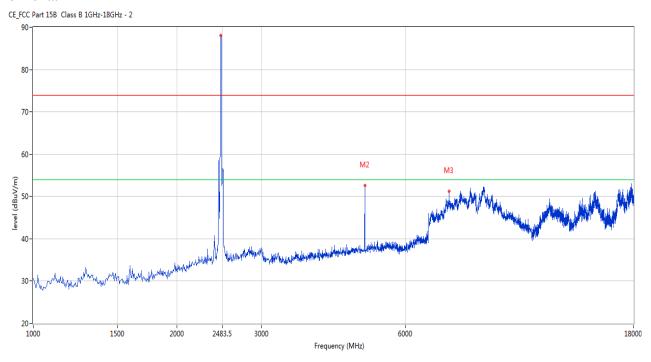
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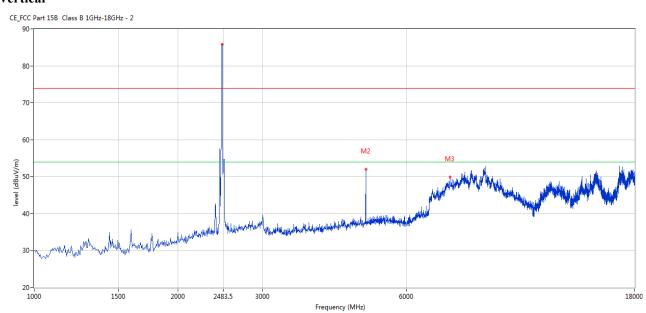


Please refer to the following test plots for details: High Channel

Horizontal



Vertical



For emission above 18GHz, It is only the floor noise. No necessary to take down.

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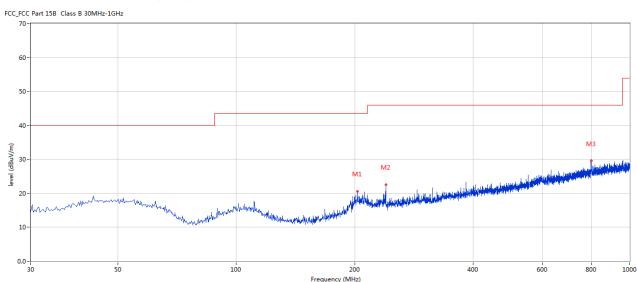


B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequen	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	cy (MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
))	(dB)					
1	203.344	20.64	-13.46	43.5	-22.86	Peak	279.00	200	Н	Pass
2	239.953	22.59	-12.33	46.0	-23.41	Peak	360.00	100	Н	Pass
3	799.745	29.55	-2.97	46.0	-16.45	Peak	12.00	100	Н	Pass

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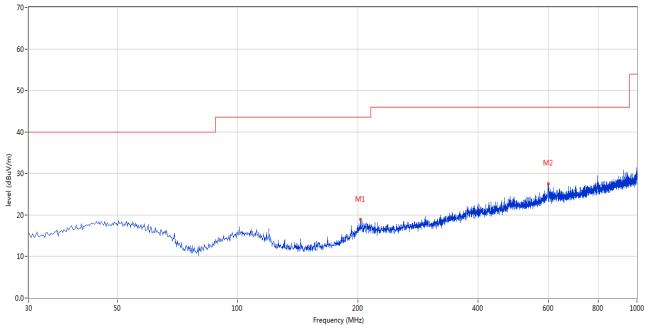
Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual





No.	Frequency	Results	Factor (dB)	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(o)	(cm)		
1	203.344	18.90	-13.46	43.5	-24.60	Peak	0.00	200	٧	Pass
2	600.217	27.54	-4.95	46.0	-18.46	Peak	0.00	200	٧	Pass

Date: 2019-09-19

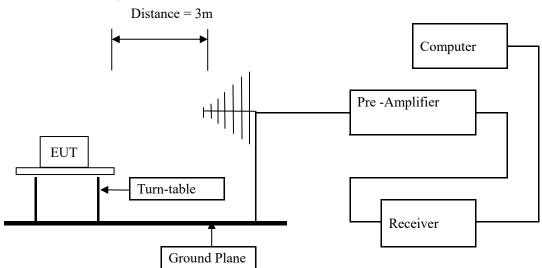


7. Band Edge

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
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) The antenna polarization: Vertical polarization and Horizontal polarization.

7. 2 Radiated Test Setup



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

7.3 Configuration of The EUT

Same as section 5.3 of this report

7.4 EUT Operating Condition

Same as section 5.4 of this report.

7.5 Band Edge Limit

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

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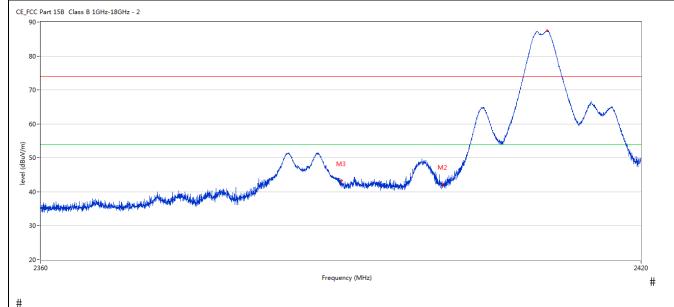
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7.6 Test Result

Product:		& WIRELESS CAL KEYBOARD	Polarity	Horizontal					
Mode	Keepin	g Transmitting	Test Voltage	DC3.7V					
Temperature	2	4 deg. C,	Humidity	56% RH					
Test Result:		Pass		1					
2400MHz	PK (dBμV/m)	42.25	Limit	$74~dB\mu V/m$					
2400MHz	AV (dBμV/m)	1	Limit	54 dBμV/m					
2390 MHz	PK (dBμV/m)	41.71	Limit	74 dBμV/m					
2390 MHz	AV (dBμV/m)		Limit	54 dBμV/m					



No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)			(cm)		
2	2400	42.25	-3.57	54.0	-11.75	Peak	6.00	100	Н	Pass
3	2390	41.71	-3.53	54.0	-12.29	Peak	242.00	100	Н	Pass

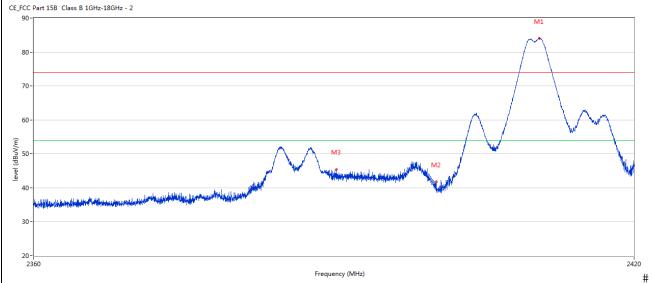
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Product:		& WIRELESS CAL KEYBOARD	Detector	Vertical
Mode	Keeping	g Transmitting	Test Voltage	DC3.7V
Temperature	24	4 deg. C,	Humidity	56% RH
Test Result:		Pass		1
2400MHz	PK (dBμV/m)	41.77	Limit	$74~dB\mu V/m$
2400MHz	AV (dBμV/m)		Limit	54 dBμV/m
2390 MHz	PK (dBμV/m)	45.31	Limit	74 dBμV/m
2390 MHz	Iz $AV (dB\mu V/m)$		Limit	$54 \; dB \mu V/m$



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
2	2400	41.77	-3.57	54.0	-12.23	Peak	293.00	100	V	Pass
3	2390	45.31	-3.53	54.0	-8.69	Peak	281.00	100	V	Pass
									•	

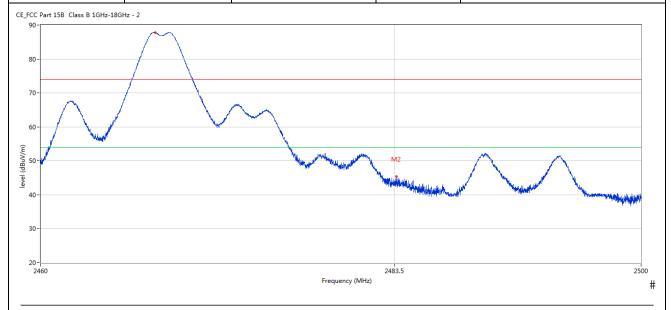
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Product:		& WIRELESS CAL KEYBOARD	Polarity	Horizontal
Mode	Keeping	g Transmitting	Test Voltage	DC3.7V
Temperature	24	4 deg. C,	Humidity	56% RH
Test Result:		Pass		
2483.5MHz	PK (dBμV/m)	45.44	Limit	74 dBμV/m
2483.5MHz	AV (dBμV/m)		Limit	54 dBμV/m



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
2	2483.5	45.44	-3.57	54.0	-8.56	Peak	296.00	100	Н	Pass
#										

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Product:	WIRED MECHANIO	Detecto	or		Vertical			
Mode	Keeping	Test Volta	age	DC3.7V				
Temperature	24 deg. C,			Humidit	ty	56% RH		
Test Result:	Pass							
2483.5MHz	PK (dBμV/m) 42.49			Limit		74 dBμV/m		
2483.5MHz	AV (dBμV/m)			Limit		54 dBμV/m		
	/							
70- 60- 60- 40- 30- 20- 2460			Frequency (MF					2500
(a) (b) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	Results Factor (dBuV/m) (dB)	Limit (dBuV/m)	Frequency (MHOVER Limit (dB)	2483.5 z)	Table (o)	Height (cm)	ANT	

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. The antenna gain is 0dBi Max. It fulfills the requirement of this section. Test Result: Pass

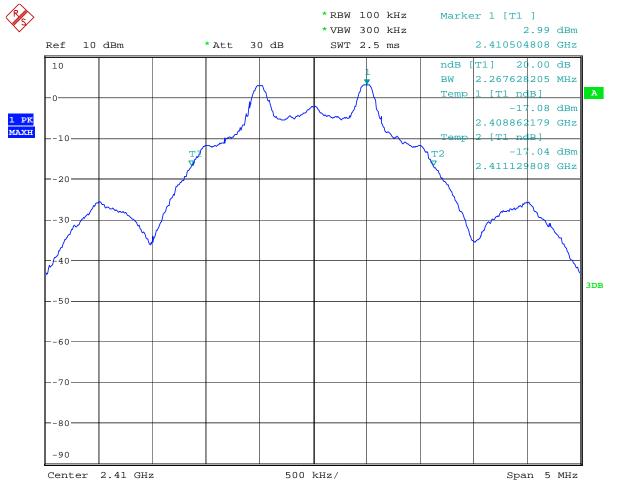
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9.0 20dB Bandwidth Measurement						
WIRED & WIRELESS	Tost Mode:	V and thou amittin a				
MECHANICAL KEYBOARD	rest Mode.	Keep transmitting				
Keeping Transmitting	Test Voltage	DC3.7V				
24 deg. C,	Humidity	56% RH				
Pass	Detector	PK				
2.27MHz						
	WIRED & WIRELESS MECHANICAL KEYBOARD Keeping Transmitting 24 deg. C, Pass	WIRED & WIRELESS MECHANICAL KEYBOARD Keeping Transmitting Test Voltage 24 deg. C, Humidity Pass Detector				



Date: 5.SEP.2019 11:11:48

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Product:	MECHANICAL KEYBOARD			Keep transmitting	
Mode				DC3.7V	
Temperature	24 deg. C,	24 deg. C, Humidity 56% RH		Н	
Test Result:	Pass		Detector	PK	
20dB Bandwidth	2.28MHz				
Ref 10 dE	3m * Att 30 dB	* RBW 100 * VBW 300 SWT 2.5	kHz	er 1 [T1] 2.91 dBm 2.440496795 GHz	
10			ndB BW Temp	[T1] 20.00 dB 2.275641026 MHz 1 [T1 ndB]	A
1 PK MAXH		\ \	Temp	-17.37 dBm 2.438862179 GHz 2 [T1 ndB]	
20	T.F.		T2	-17.09 dBm 2.441137821 GHz	
-30					
40	Y				
50				٧	3DB
60					
-70					
-80					
-90					

Date: 5.SEP.2019 11:10:30

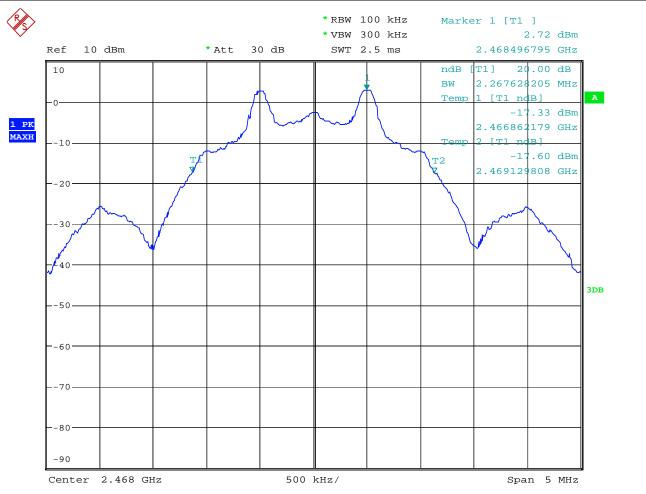
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Product:	WIRED & WIRELESS MECHANICAL KEYBOARD	Test Mode:	Keep transmitting
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	2.27MHz		



Date: 5.SEP.2019 11:09:11

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10.0 FCC ID Label

FCC ID: TUVDS-8333

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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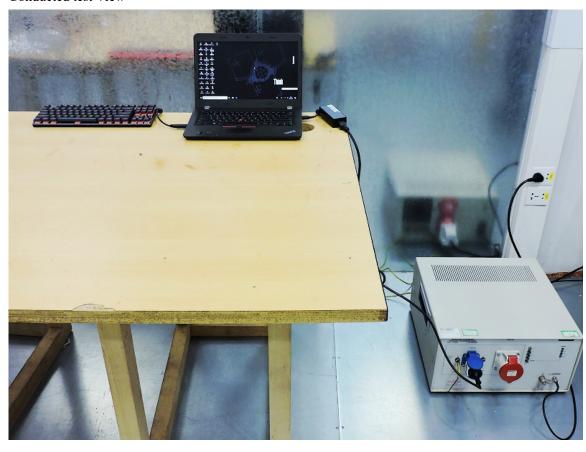
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11.0 Photo of testing

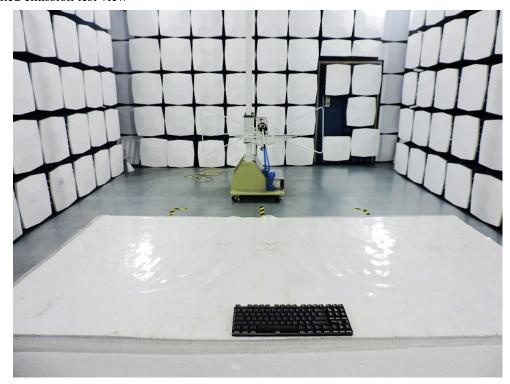
11.1 Conducted test View

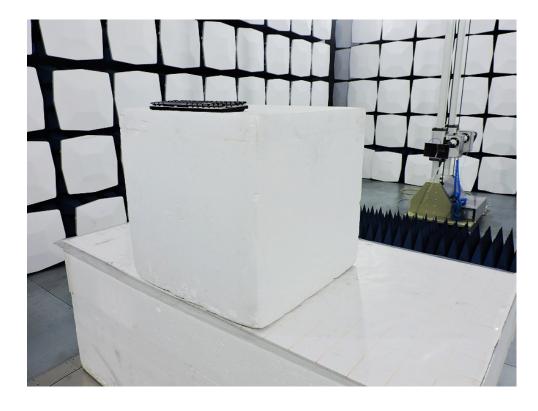


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11.2 Radiated emission test view





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11.3 Photographs – EUT

Outside View- Keyboard





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Outside View- Keyboard





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Outside View- Keyboard



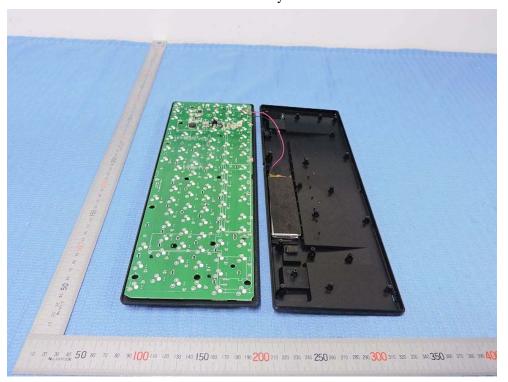
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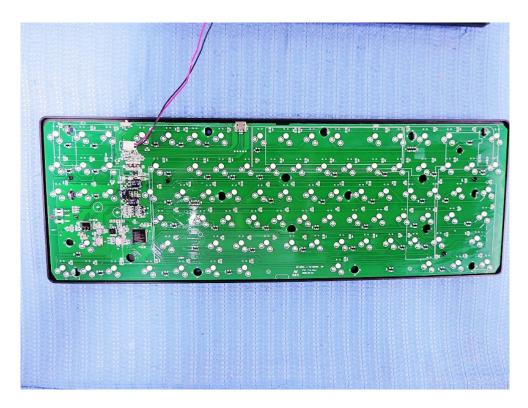
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Inside view- Keyboard





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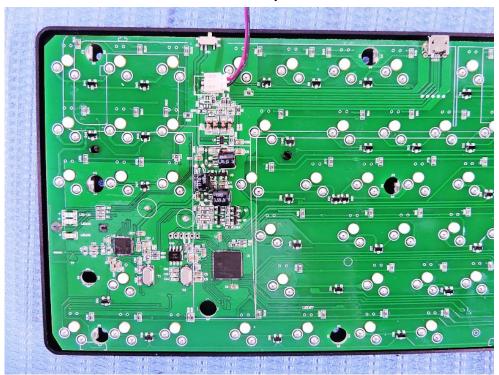
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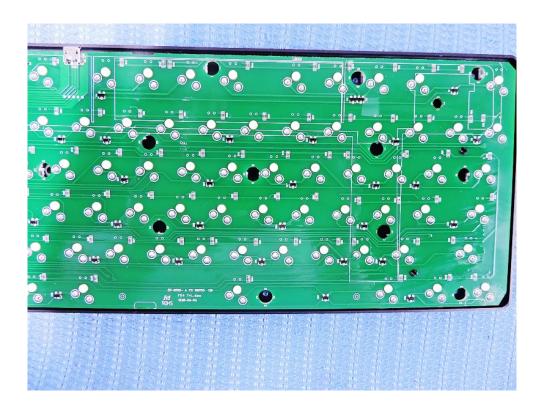
adopt any other remedies which may be appropriate.

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Inside view- Keyboard





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Inside view- Keyboard



-- End of the report--