



File reference No.: 2022-02-28

Applicant: Eastern Times Technology Co.,Ltd

Product: 3 MODES MECHANICAL GAMING KEYBOARD

Model No.: K615P-KBS, ET-8543, ET-8556, ET-8591, ET-8592, ET-8557,

ET-8605, ET-8606

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

T T

Terry Tang

Manager

Dated: February 28, 2022

Results appearing herein relate only to the sample tested

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

SHENZHEN TIMEWAY TESTING LABORATORIES

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

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

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Special Statement:

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

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

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

CNAS-LAB Code: L2292

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

FCC-Registration No.: 744189

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

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

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

A2LA (Certification Number:5013.01)

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

Date: 2022-02-28



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

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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: 3 MODES 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: K615P-KBS

Additional Model Name ET-8543, ET-8556, ET-8591, ET-8592, ET-8557, ET-8605, ET-8606

Rating: DC5V, 660mA or DC3.7V, 226mA Battery: DC3.8V, 1600mAh Li-ion battery

Modulation Type: GFSK (Bluetooth)
Operation Frequency: 2402-2480MHz

Channel Separate: 1MHz
Channel Number: 79

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

1.4 Submitted Sample: 1 pc

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1.5 Test Duration

2021-09-02 to 2022-02-28

1.6 Test Uncertainty

Conducted Emissions Uncertainty = 3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty =6.0dB

Occupied Channel Bandwidth Uncertainty =5%

Conducted Emissions Uncertainty =3.6dB

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

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

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2.0 Test Equipment							
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date		
ESPI Test Receiver	R&S	ESPI 3	100379	2021-06-18	2022-06-17		
LISN	R&S	EZH3-Z5	100294	2021-06-18	2022-06-17		
LISN	R&S	EZH3-Z5	100253	2021-06-18	2022-06-17		
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2021-06-18	2022-06-17		
Loop Antenna	EMCO	6507	00078608	2021-06-18	2024-06-17		
Spectrum	R&S	FSIQ26	100292	2021-06-18	2022-06-17		
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2021-07-02	2024-07-01		
Horn Antenna	R&S	BBHA 9120D	9120D-631	2021-07-02	2024-07-01		
Power meter	Anritsu	ML2487A	6K00003613	2021-06-18	2022-06-17		
Power sensor	Anritsu	MA2491A	32263	2021-06-18	2022-06-17		
Bilog Antenna	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	1	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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Technical Details 3.0

3.1 Summary of test results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph 15.207	Conducted Emission Test	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**

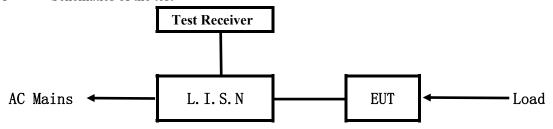
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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5.0 Power Line Conducted Emission Test

5.1 Schematics of the test

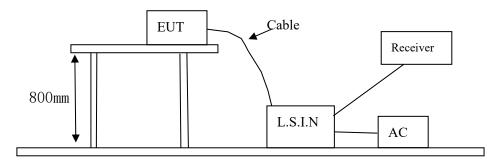


EUT: Equipment Under Test

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
3 MODES MECHANICAL GAMING KEYBOARD	Eastern Times Technology Co.,Ltd	K615P-KBS, ET-8543, ET-8556, ET-8591, ET-8592, ET-8557, ET-8605, ET-8606	TUVET-8543

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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 ~ 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)

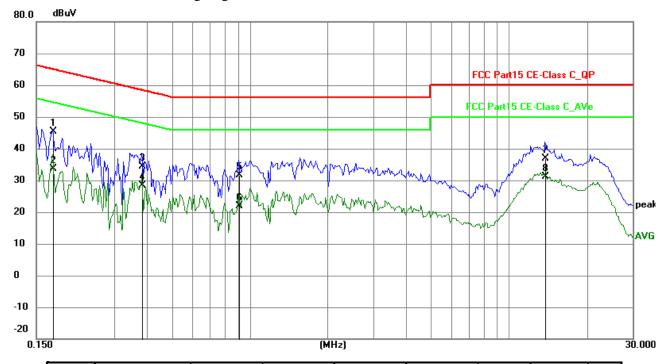
EUT Operating Environment

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

EUT set Condition: 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	0.1734	35.64	9.77	45.41	64.80	-19.39	QP	Р
2	0.1734	23.84	9.77	33.61	54.80	-21.19	AVG	Р
3	0.3840	24.68	9.76	34.44	58.19	-23.75	QP	Р
4	0.3840	18.59	9.76	28.35	48.19	-19.84	AVG	Р
5	0.9066	21.74	9.79	31.53	56.00	-24.47	QP	Р
6	0.9066	12.08	9.79	21.87	46.00	-24.13	AVG	Р
7	13.7796	26.64	10.33	36.97	60.00	-23.03	QP	Р
8	13.7796	20.68	10.33	31.01	50.00	-18.99	AVG	Р

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

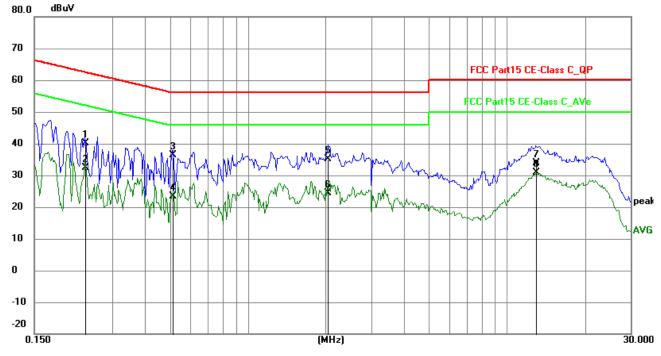
EUT Operating Environment

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

EUT set Condition: 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	0.2358	30.35	9.75	40.10	62.24	-22.14	QP	Р
2	0.2358	22.54	9.75	32.29	52.24	-19.95	AVG	Р
3	0.5127	26.59	9.77	36.36	56.00	-19.64	QP	Р
4	0.5127	13.64	9.77	23.41	46.00	-22.59	AVG	Р
5	2.0376	25.38	9.80	35.18	56.00	-20.82	QP	Р
6	2.0376	14.57	9.80	24.37	46.00	-21.63	AVG	Р
7	12.9645	23.48	10.29	33.77	60.00	-26.23	QP	Р
8	12.9645	20.65	10.29	30.94	50.00	-19.06	AVG	Р

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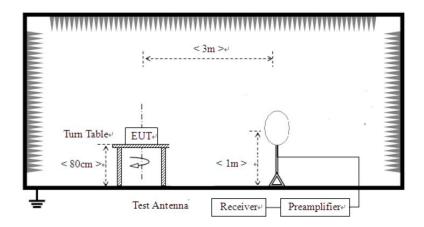


6 Radiated Emission Test

- 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

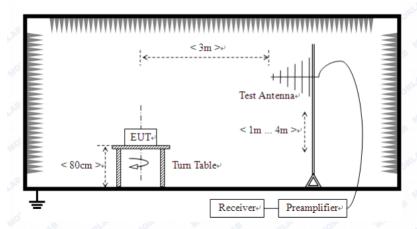
For radiated emissions from 9kHz to 30MHz



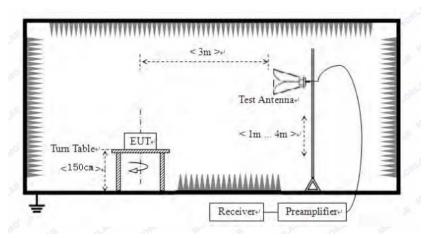
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For radiated emissions from 30MHz to1GHz



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:

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

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

Note:

- 1. RF Field Strength (dBuV) = 20 log RF 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
30-88	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. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.
- 6. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
- 7. Battery full charged during tests.

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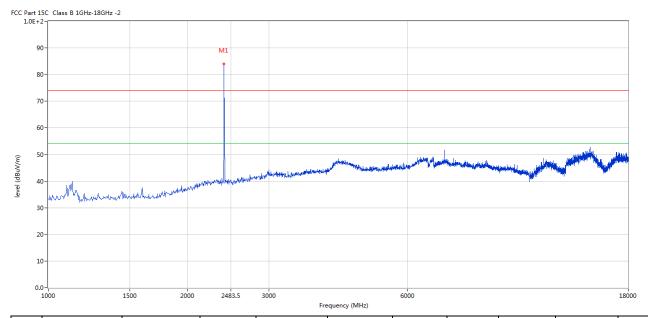


6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

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

Horizontal



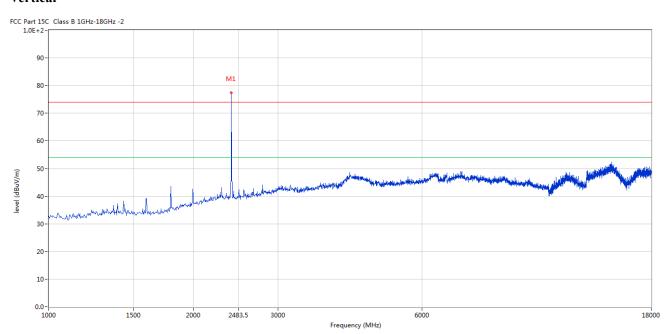
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402.089	84.01	-3.57	114.0	-29.99	Peak	108.00	100	Horizontal	Pass

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Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402.112	77.54	-3.57	114.0	-36.46	Peak	141.00	100	Vertical	Pass

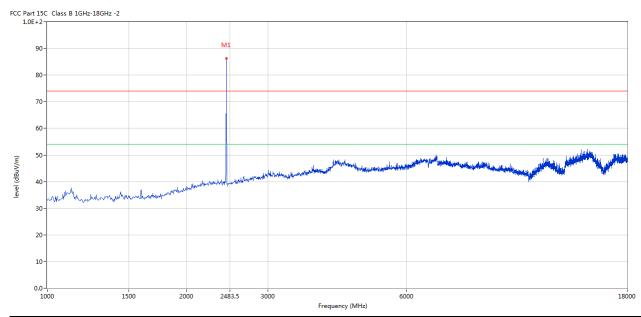
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Please refer to the following test plots for details: Middle Channel-2441MHz

Horizontal



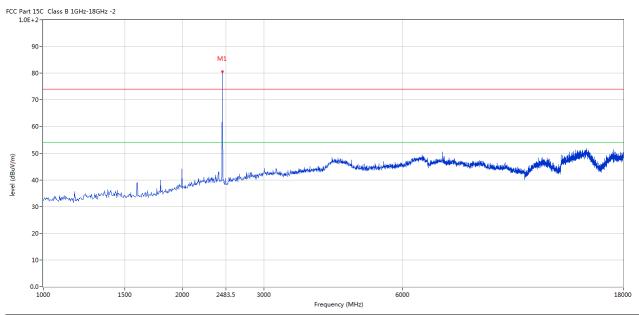
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2440.120	86.28	-3.57	114.0	-27.72	Peak	105.00	100	Horizontal	Pass

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Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict	
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)			
1	2440.252	80.58	-3.57	114.0	-33.42	Peak	153.00	100	Vertical	Pass	

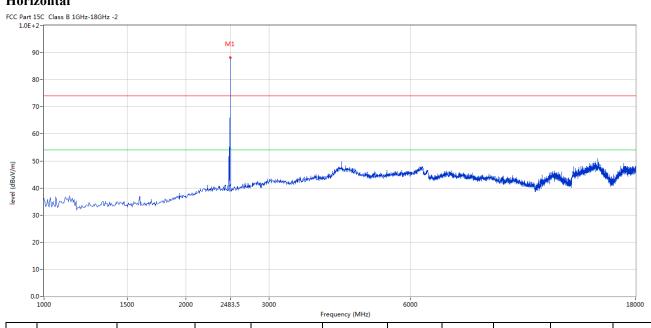
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Please refer to the following test plots for details: High Channel-2480MHz

Horizontal



	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
Ī	1	2479.669	88.78	-3.57	114.0	-25.22	Peak	244.00	100	Horizontal	Pass

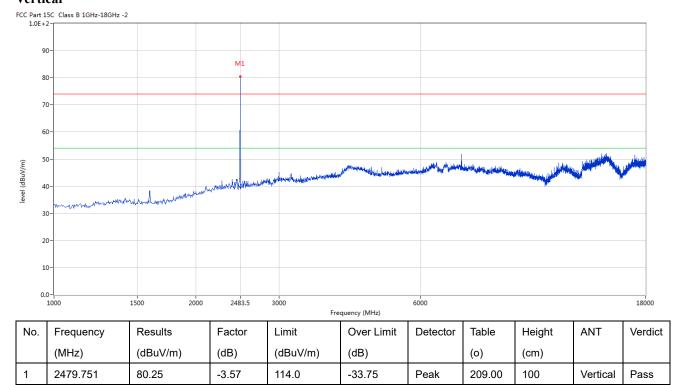
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Vertical



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

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

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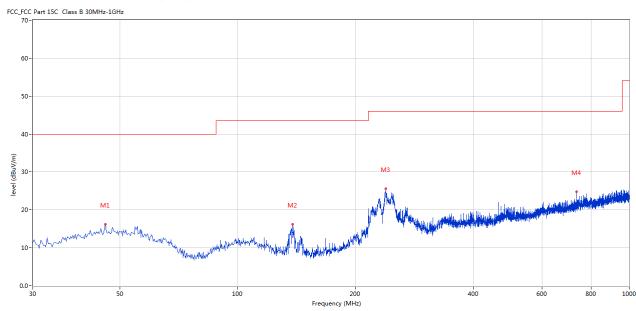


B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	46.001	16.19	-11.40	40.0	-23.81	Peak	274.00	100	Horizontal	Pass
2	138.370	16.19	-17.27	43.5	-27.31	Peak	139.00	100	Horizontal	Pass
3	239.225	25.56	-12.38	46.0	-20.44	Peak	359.00	100	Horizontal	Pass
4	734.529	24.73	-3.71	46.0	-21.27	Peak	53.00	100	Horizontal	Pass

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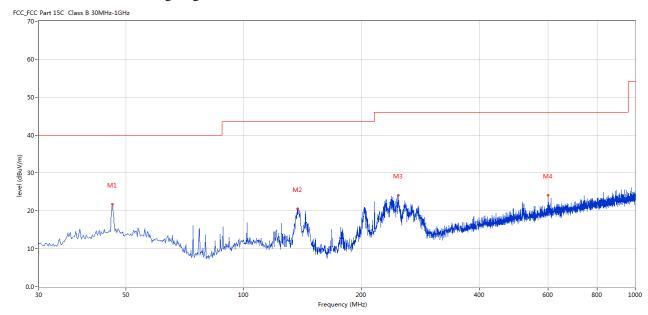


Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(0)	(cm)		
1	46.243	21.76	-11.41	40.0	-18.24	Peak	19.00	100	Vertical	Pass
2	137.401	20.58	-17.23	43.5	-22.92	Peak	106.00	100	Vertical	Pass
3	248.680	24.12	-12.22	46.0	-21.88	Peak	82.00	100	Vertical	Pass
4	599.975	24.07	-4.95	46.0	-21.93	Peak	232.00	100	Vertical	Pass

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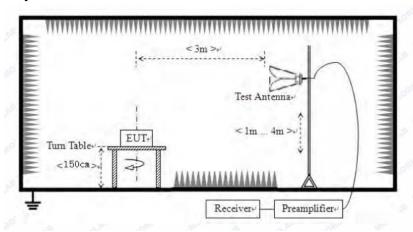


7. Band Edge

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.

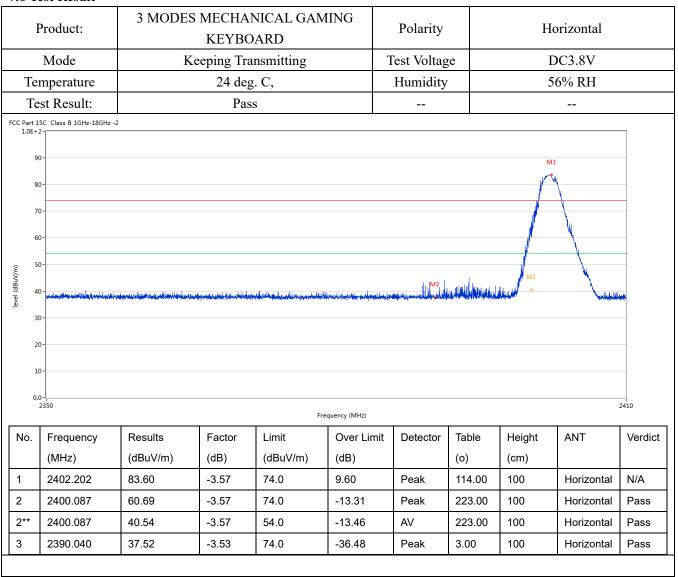
The report refers only to the sample tested and does not apply to the bulk.

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7.6 Test Result



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2400.057

2390.085

38.02

38.50



30- 20- 10- 2350 Frequency (MHz) No. Frequency Results Factor Limit Over Limit Detector Table Height ANT Ver (MHz) (MHz) (dBuV/m) (dB) (dBuV/m) (dB) (o) (cm) 2402.022 77.02 -3.57 74.0 3.02 Peak 146.00 100 Vertical N/A											
Temperature 24 deg. C, Humidity 56% RH Test Result: Pass Part 15C Class 8 16Hz-186Hz -2 106 -2 90 40 101 102 102 103 104 105 105 106 107 107 108 109 109 109 109 109 109 109]	Product:	3 MOD			MING	Detecto	or	Ţ	Vertical	
Part ISC Class 8 IGHt-18GHz -2		Product: k Mode Keep Imperature est Result: ISC Class B IGHz-18GHz - 2	Keeping T	ransmitting		Test Volt	age	Γ	C3.8V		
Part 15C Class B 16Hz-18GHz - 2 1061-2 90- 80- 70- 60- 20- 10- 20- 10- 20- 10- 20- 10- 20- 20- 10- 20- 20- 20- 20- 20- 20- 20- 20- 20- 2	Te	mperature		24 d	eg. C,		Humidi	ty	5	6% RH	
10E + 2 90 80 70 60 40 100 200 100 100 100 100 100	Te	est Result:		P	ass						
90 M1 70 60			: -2					•			
No. Frequency Results Factor Limit Over Limit Detector Table Height ANT Ver (MHz) (dBuV/m) (dB) (dBuV/m) (dB) (dBuV/m) (dB) (o) (cm) (dBuV/m) (7 6 . 5	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	de selle like her en er en	aladh vaya bandana	and only a private of the contract	المفارات من أنا بالأراث والمالية المالية			M2	M1	ul-treditible
2350 Frequency (MHz) No. Frequency Results Factor Limit Over Limit Detector Table Height ANT Ver (MHz) (dBuV/m) (dB) (dBuV/m) (dB) (o) (cm) 2402.022 77.02 -3.57 74.0 3.02 Peak 146.00 100 Vertical N/A											
(MHz) (dBuV/m) (dB) (dBuV/m) (dB) (o) (cm) 2402.022 77.02 -3.57 74.0 3.02 Peak 146.00 100 Vertical N/A	0.					Frequency (MHz)					
2402.022 77.02 -3.57 74.0 3.02 Peak 146.00 100 Vertical N/A	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verd
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
2 2400.057 54.47 -3.57 74.0 -19.53 Peak 121.00 100 Vertical Pas	1	2402.022	77.02	-3.57	74.0	3.02	Peak	146.00	100	Vertical	N/A
	2	2400.057	54.47	-3.57	74.0	-19.53	Peak	121.00	100	Vertical	Pass

-15.98

-35.50

ΑV

Peak

121.00

156.00

100

100

Vertical

Vertical

Pass

Pass

54.0

74.0

-3.57

-3.53

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]	Product:	3 MOD		IANICAL GA BOARD	AMING	Polar	rity		Horizontal	
	Mode		Keeping '	Transmitting		Test Vo	ltage		DC3.8V	
Te	mperature		24 0	deg. C,		Humi	dity		56% RH	
Te	est Result:			Pass						
C Part 1 1.0E+	L5C Class B 1GHz-18GH	z -2				<u>'</u>	<u>'</u>			
9	0-									
8	0-		add the control of th	The state of the s						
7	0-			***						
6	0-			W.						
0			<i>f</i>	The state of the s	•					
4	0-		<u> </u>	M2	My					
4	O-	and the same of th		•	The second states	okidenti ekiteti ekite	ووروز إسادوا إدواله	lajking translating transfer	and the second section of the section o	مايلة أبنانيه وما
	0-									
2	0-									
1	0-									
	0- 2470			248	3.5 Frequency (MHz)					:
No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verd
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2480.055	87.52	-3.57	74.0	13.52	Peak	117.00	100	Horizontal	N/A
2	2483.437	55.38	-3.57	74.0	-18.62	Peak	112.00	100	Horizontal	Pass
2**	2483.437	39.71	-3.57	54.0	-14.29	AV	112.00	100	Horizontal	Pass

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]	Product:	3 MODE		ANICAL GAN OARD	MING	Detecto	or	V	'ertical	
	Mode		Keeping T	ransmitting		Test Volta	age	D	C3.8V	
Те	mperature		24 de	eg. C,		Humidit	ty	56	5% RH	
Te	est Result:		Pa	ass						
CC Part 1	15C Class B 1GHz-18GHz -	2			<u>'</u>		•			,
8	30 -		and the state of t	V						
(W/nnpp) Javas 3 2 2 1	20-	heldhershelmind an a cean de dhe			acodemical despetation is	nt main special phase and strong		mada dhi maka sa k	lis de describe de la describe de la constante	
(W/nnpp) Javas 3 2 2 1	10	heldharetharitaden an		2483.5 Fred	quency (MHz)				lis de describe de la deficie de la constante d	2500
(W/nnpp) Javas 3 2 2 1	10	Results	Factor			Detector	Table	Height	ANT	
(w//nngp) 4 3 3 2 1 0.	20 - 2470		Factor (dB)	Fred	quency (MHz)					2500
(w//nngp) 4 3 3 2 1 0.	50	Results		Limit	quency (MHz) Over Limit		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 -1.85dBi maximum. It fulfills the requirement of this section. Test Result: Pass

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FSK Modulation	·								
Product:	3 MODI	ES MECHANICA KEYBOARI		ì	Test Mo	de:	Keep tr	ansmitting	
Mode		Keeping Transm	itting		Test Volt	age	DO	C3.8V	
Temperature		24 deg. C,			Humidi	ity	569	% RH	
Test Result:		Pass		Detecto	or	PK			
dB Bandwidth		1.533MHz							
Ref Lvl	Delt	a 1 [T1]		RBW VBW	30 k 100 k		RF Att	20 dB	
10 dBm		1.5330661	3 MHz	SWT	8.5 m	າຣ	Unit	dBm	
10			2.		V ₁	[T1]	2.40126	.21 dBm	2
-10				7	1 ∇ ₂	[T1]	1.53306	.28 dB 613 MHz	
-20				~ <u></u>	my	1	2.40202	104 GHz	
_D1 -22.0	3 dBm	V							11
-40									
-50									
-60									
-70									
-80									
-90 Center 2.4			300 kHz					an 3 MHz	

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GFSK Modula	tion										
Product: 3 MODES MECHANICAL GAMING KEYBOARD					IG	Test Mode:		Keep transmitting			
Mode Keeping Transmitting Temperature 24 deg. C,					Test Voltage Humidity		DC3.8V 56% RH				
Test Result:	Pass					Detector		PK			
20dB Bandwidth	1.359MHz										
Ref Lvl 10 dBm		Delta 1		.02 dB 743 MHz	RE VE SW	W 100	kHz	RF Att Unit	20 dB	ı	
10					2	▼1		-2 2.4403	1.26 dBm 2966 GHz	A	
-10					w w	↑	[T1]	1.3587	1.60 dBm		
-20 —D1 -21.	6 dBm—	1	\mathcal{N}				1	2.4410	0902 GHz		
-30		N	V							1MA	
-40	مستمسم										
-50											
-60											
-70											
-80											
-90 Center 2			.24.10	300	kHz/			Sp	an 3 MHz		
Date: 22	2.FEB.2	1022 13	:24:18								

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GFSK Modulati	on									
Product:	3 MODES	S MECHANICAL GAMING KEYBOARD			Test Mode:		Keep transmitting			
Mode	Ke	eping Transmit	Te	Test Voltage		DC3.8V				
Temperature 24 deg. C,				I	Humidity Detector		56% RH PK			
Test Result:	Test Result: Pass									
20dB Bandwidth										
Ref Lvl	Delt	a 1 [T1] 0. 1.238476	12 dB 95 MHz	RBW VBW SWT	30 kl 100 kl 8.5 ms	Hz	F Att	20 dB dBm	ı	
10					V ₁	[T1]	-2: 2.47938	1.73 dBm 3377 GHz	A	
-10		/	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	my h	^ 1	[T1]	1.2384° -: 2.48000	7695 MHz 1.66 dBm		
-20 <u>D1 -21.</u>	66 dBm	1				1	2.48000)902 GHz	1MA	
-30	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	~							IMA	
-40							\			
-50								\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
-60										
-70										
-80										
-90 Center 2 Date: 22	.48 GHz	13:26:53	300 kH	Hz/	<u> </u>		Spa	an 3 MHz		

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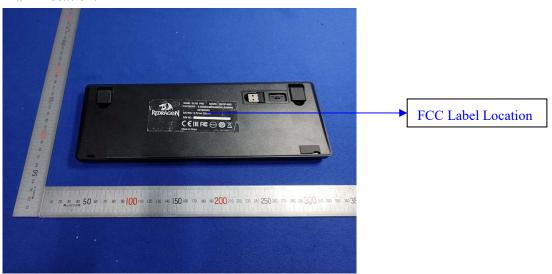
10.0 FCC ID Label

FCC ID: TUVET-8543

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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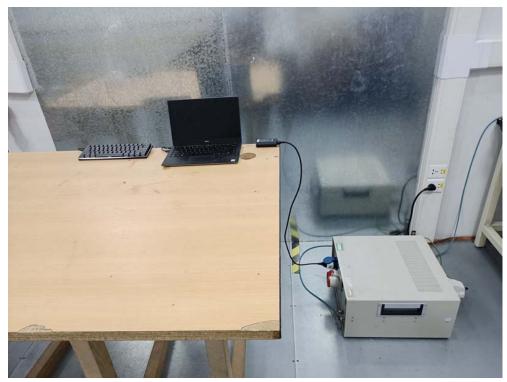
Report No.: TW2109031-02E

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11.0 Photo of testing

11.1 Conducted test View--



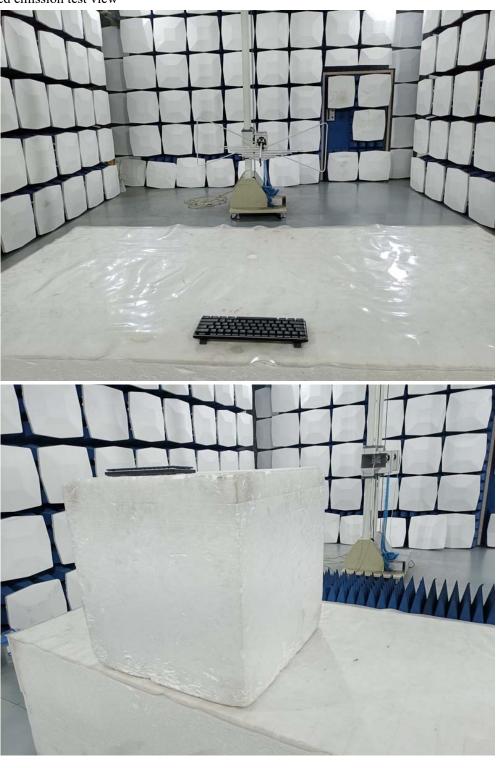
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Radiated emission test view



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

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11.2 Photographs – EUT

Outside View



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Photographs – EUT

Outside View



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Outside View



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Inside view



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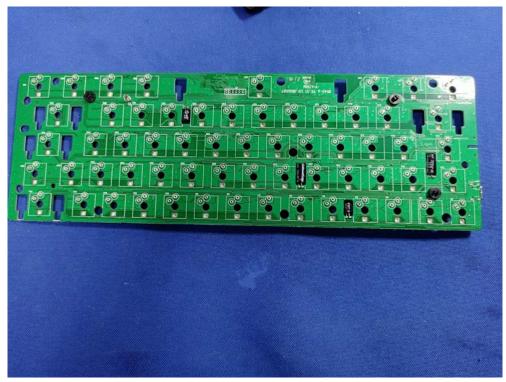
adopt any other remedies which may be appropriate.

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Inside view



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

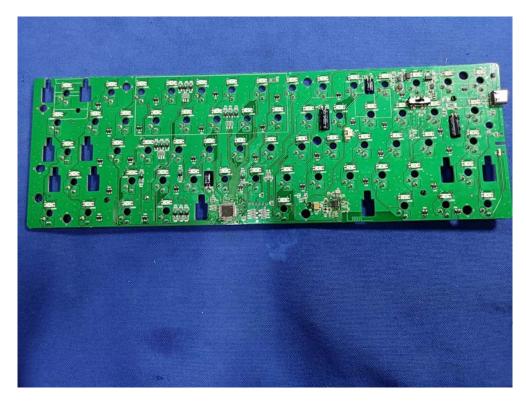
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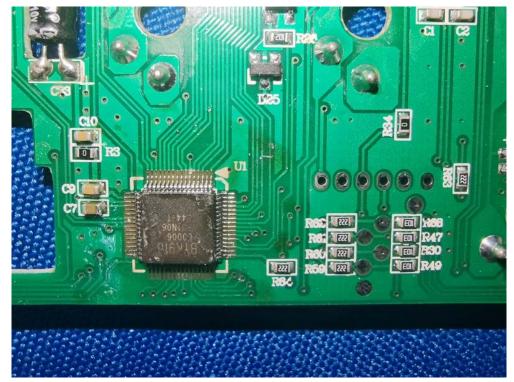
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Inside view



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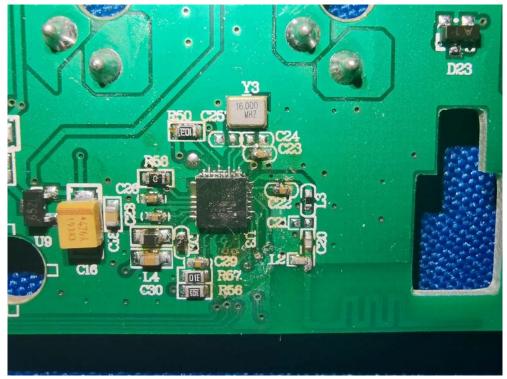
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-- End of the report--