

Report No.:	TW2308374-01E
Applicant:	Eastern Times Technology Co.,Ltd
Product:	3MODES 60% ALUMINUM RGB MECHANICAL KEYBOARD
Model No.:	K641G-GW-RGB-PRO, ET-8876, K641B-BW-RGB-PRO
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	
Dated:	October 30, 2023

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

## SHENZHEN TIMEWAY TESTING LABORATORIES

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## **Special Statement:**

## FCC-Registration No.: 744189

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

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

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

## A2LA (Certification Number:5013.01)

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

## CAB identifier: CN0033

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#### 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:	3MODES 60% ALUMINUM RGB MECHANICAL KEYBOARD
Manufacturer:	Eastern Times Technology Co.,Ltd
Address:	Building D, Nan An Industrial Area, Youganpu Village, Fenggang Town,
	Dongguan City, Guangdong, China.
Trademark:	REDRAGON
Model Number:	K641G-GW-RGB-PRO
Additional Model Name	ET-8876, K641B-BW-RGB-PRO
Rating:	Input: DC5V, 740mA or DC3.7V, 260mA
Battery:	DC3.7V, 3000mAh Li-ion battery
Hardware Version:	8876-A V1
Software Version:	6A5D
Serial No.:	RDK641G-GW-RGB-PRO23012500219
<b>Operation Frequency:</b>	2403-2480MHz
Channel Number:	16
Channel List (Unit: MHz):	2403, 2424, 2441, 2461, 2414, 2435, 2450, 2470, 2409, 2429, 2455, 2475,
	2419, 2445, 2465, 2480
Antenna Designation	PCB antenna with gain -7.30dB maximum (Get from the antenna
	specification)

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#### 1.4 Submitted Sample: 2 Samples

- 1.5 Test Duration 2023-08-29 to 2023-10-30
- 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	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100294	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100253	2023-07-14	2024-07-13
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2023-07-14	2024-07-13
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2023-07-14	2024-07-13
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2022-07-18	2025-07-17
Horn Antenna	R&S	BBHA 9120D	9120D-631	2022-07-18	2024-07-17
Power meter	Anritsu	ML2487A	6K00003613	2023-07-14	2024-07-13
Power sensor	Anritsu	MA2491A	32263	2023-07-14	2024-07-13
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17
9*6*6 Anechoic			N/A	2022-07-26	2025-07-25
EMI Test Receiver	RS	ESVB	826156/011	2023-07-14	2024-07-13
EMI Test Receiver	RS	ESCS 30	834115/006	2023-07-14	2024-07-13
Spectrum	HP/Agilent	E4407B	MY50441392	2023-07-14	2024-07-13
Spectrum	RS	FSP	1164.4391.38	2023-07-14	2024-07-13
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2023-07-14	2024-07-13
RF Cable	Zhengdi	7m		2023-07-14	2024-07-13
Pre-Amplifier	Schwarebeck	BBV9743	#218	2023-07-14	2024-07-13
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2023-07-14	2024-07-13
LISN	SCHAFFNER	NNB42	00012	2023-07-14	2024-07-13
ESPI Test Receiver	R&S	ESPI 3	100379	2023-07-14	2024-07-13
LISN	R&S	EZH3-Z5	100294	2023-07-14	2024-07-13

#### 2.2 Automation Test Software

For Conducted Emission Test

Name	Version	
EZ-EMC	Ver.EMC-CON 3A1.1	

#### For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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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 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	
FCC Part 15.215(c)	20dB bandwidth	Pass	Complies	

#### 3.2 Test Standards

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

#### 4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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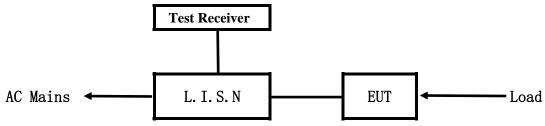
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#### 5.0 Power Line Conducted Emission Test

5.1 Schematics of the test

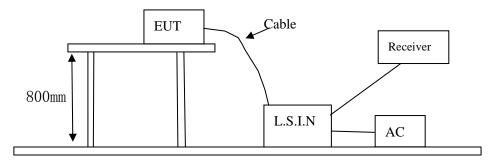


EUT: Equipment Under Test

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 500hm/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. 16 channels are provided to the EUT

A.	EUT
1 1.	<b>DU</b> I

Device	Manufacturer	Model	FCC ID
3MODES 60% ALUMINUM RGB MECHANICAL KEYBOARD	Eastern Times Technology Co.,Ltd	K641G-GW-RGB-PRO, ET-8876, K641B-BW-RGB-PRO	TUVET-8876A

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#### B. Internal Device

Internal Beviee			
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

6 6 1				
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:

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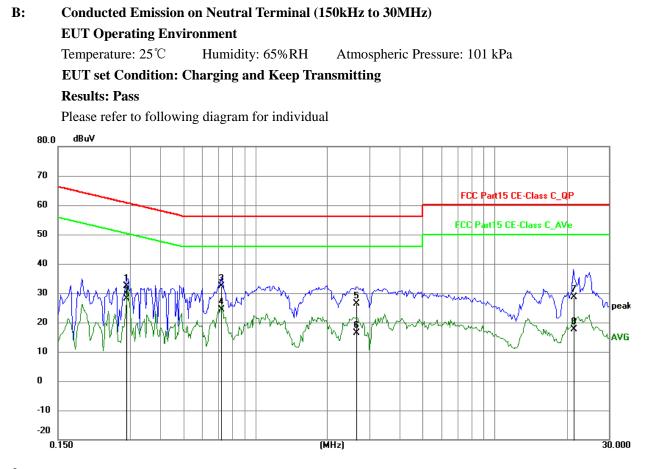
Conducted Emission on Live Terminal (150kHz to 30MHz) A: **EUT Operating Environment** Temperature: 25°C Humidity: 65%RH Atmospheric Pressure: 101 kPa **EUT set Condition: Charging and Keep Transmitting Results: Pass** Please refer to following diagram for individual dBu¥ 80.0 70 FCC Part15 CE-Class C\_QP 60 FCC Part 5 CE-Class C\_AVe 50 40 30 peak 7 X 20 AVG 10 0 -10 -20 0.150 (MHz) 30.000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1500	37.64	9.79	47.43	66.00	-18.57	QP	Ρ
2	0.1500	4.73	9.79	14.52	56.00	-41.48	AVG	Ρ
3	0.1812	20.83	9.76	30.59	64.43	-33.84	QP	Р
4	0.1812	8.20	9.76	17.96	54.43	-36.47	AVG	Ρ
5	2.0844	15.07	9.80	24.87	56.00	-31.13	QP	Ρ
6	2.0844	<mark>5</mark> .31	9.80	15.11	46.00	-30.89	AVG	Ρ
7	21.2988	10.89	10.76	21.65	60.00	-38.35	QP	Ρ
8	21.2988	2.28	10.76	13.04	50.00	-36.96	AVG	Р

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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2904	22.68	9.76	32.44	60.51	-28.07	QP	Ρ
2	0.2904	18.35	9.76	28.11	50.51	-22.40	AVG	Ρ
3	0.7233	22.60	9.78	32.38	56.00	-23.62	QP	Р
4	0.7233	14.49	9.78	24.27	46.00	-21.73	AVG	Ρ
5	2.6499	16.65	9.83	26.48	<u>56.00</u>	-29.52	QP	Ρ
6	2.6499	<mark>6.6</mark> 1	9.83	16.44	46.00	-29.56	AVG	Ρ
7	21.2832	17.75	10.76	28.51	60.00	-31.49	QP	Ρ
8	21.2832	<mark>6.76</mark>	10.76	17.52	50.00	-32.48	AVG	Ρ

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#### 6 Radiated Emission Test

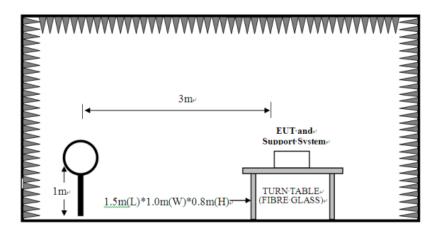
- 6.1 Test Method and test Procedure:
- The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 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 9kHz to 25 GHz was investigated. The frequency spectrum is set as follows:

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

(Note: for Fundamental frequency radiated emission measurement, RBW=3MHz, VBW=10MHz). Measurements were made at 3 meters.

- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) The antenna polarization: Vertical polarization and Horizontal polarization.Block diagram of Test setup

For radiated emissions from 9kHz to 30MHz

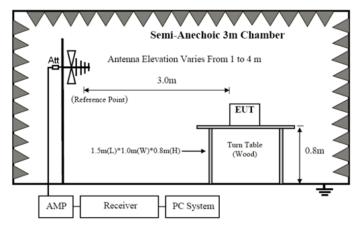


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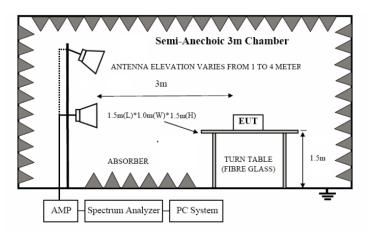
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For radiated emissions from 30MHz to1GHz



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.
- 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:

Α	FCC Part 15 Subpart C Paragraph 15.249(a) Limit	
---	-------------------------------------------------	--

Fundamental Frequency	Field Stre	ength of Fundamental (3m)	Field S	trength of Harmonics (3m)
(MHz)	mV/m	dBuV/m	uV/m	dBuV/m

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2400-2483.5		50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)
Note:	1. RF Field Streng	gth (dBuV)	$= 20 \log \text{RF Volt}$	age (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.

-	<b>A</b>	
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
30-80	3	40.0
88-216		43.5
21 -960	3	46.0
Above 960	3	54.0

Note:

1. RF Voltage (dBuV) =  $20 \log \text{RF}$  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. Battery fully charged was used during the test.

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# 6.5 Test resultA Fundamental & Harmonics Radiated Emission Data

Please refer to the following test plots for details: Low Channel-2403MHz

#### Horizontal

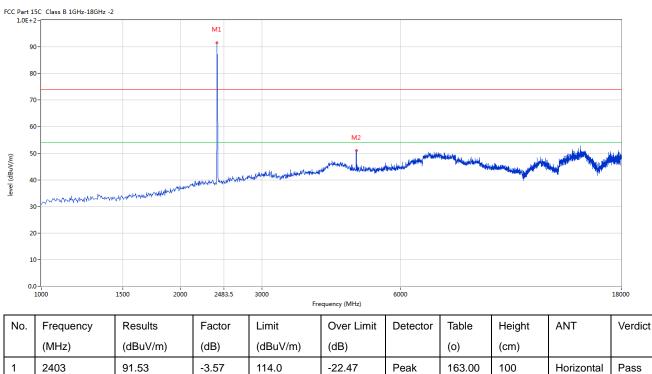
2

4807.048

51.09

3.13

74.0



-22.91

Peak

170.00

100

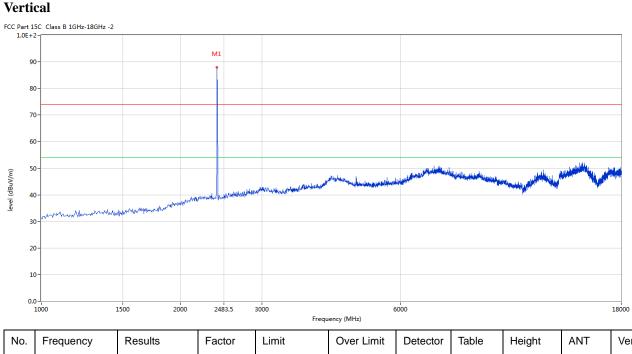
Horizontal

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	2403	87.97	-3.57	114.0	-26.03	Peak	288.00	100	Vertical	Pass

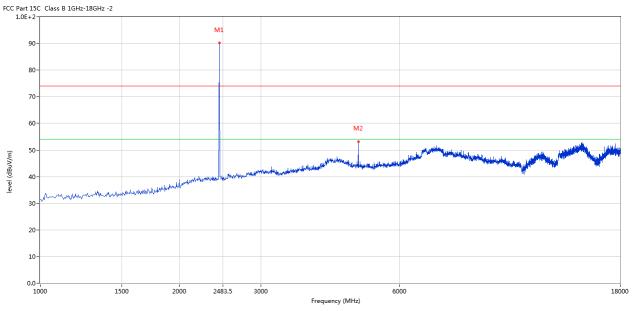
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## Please refer to the following test plots for details: Middle Channel-2441MHz

#### Horizontal

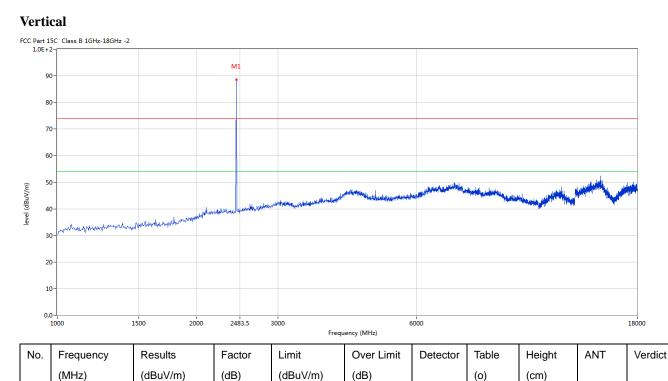


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	90.19	-3.57	114.0	-23.81	Peak	201.00	100	Horizontal	Pass
2	4879.280	53.12	3.20	74.0	-20.88	Peak	165.00	100	Horizontal	Pass

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288.00

100

Vertical

Pass

Peak

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

88.54

-3.57

114.0

-25.46

2441

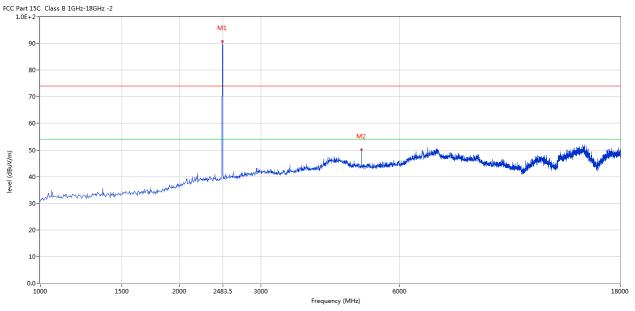
1

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

#### Horizontal

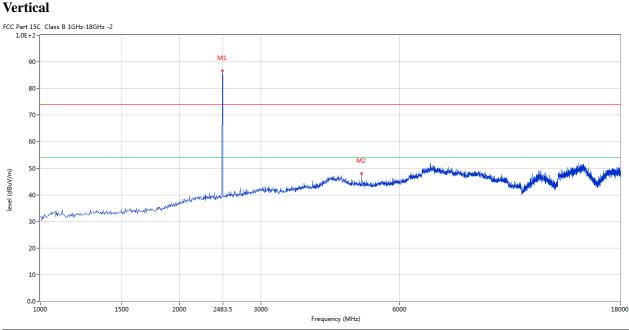


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	90.77	-3.57	114.0	-23.23	Peak	162.00	100	Horizontal	Pass
2	4960.010	50.13	3.36	74.0	-23.87	Peak	173.00	100	Horizontal	Pass

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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	2480	87.62	-3.57	114.0	-26.38	Peak	296.00	100	Vertical	Pass
2	4960.010	48.01	3.36	74.0	-25.99	Peak	296.00	100	Vertical	Pass

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

(2) Margin=Emission-Limits

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

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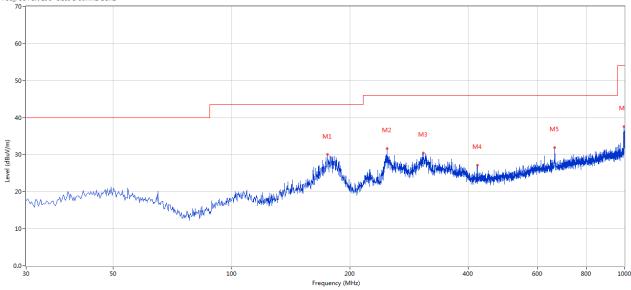
## B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

#### Results: Pass

Please refer to following diagram for individual

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



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	175.221	30.00	-15.63	43.5	13.50	Peak	257.00	100	Horizontal	Pass
2	248.438	31.70	-12.19	46.0	14.30	Peak	197.00	100	Horizontal	Pass
3	307.593	30.42	-10.94	46.0	15.58	Peak	172.00	100	Horizontal	Pass
4	422.024	27.18	-8.08	46.0	18.82	Peak	93.00	100	Horizontal	Pass
5	663.737	31.91	-4.42	46.0	14.09	Peak	296.00	100	Horizontal	Pass
6	995.879	37.59	-1.26	54.0	16.41	Peak	289.00	100	Horizontal	Pass

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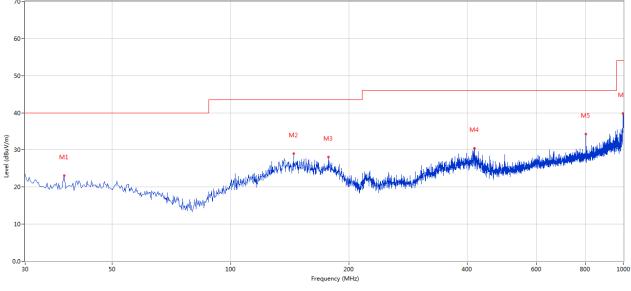
#### Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

#### **Results:** Pass

Please refer to following diagram for individual

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



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	37.758	23.13	-12.84	40.0	16.87	Peak	278.00	100	Vertical	Pass
2	144.674	28.95	-17.18	43.5	14.55	Peak	281.00	100	Vertical	Pass
3	177.646	28.03	-15.61	43.5	15.47	Peak	276.00	100	Vertical	Pass
4	417.176	30.50	-8.17	46.0	15.50	Peak	340.00	100	Vertical	Pass
5	803.139	34.32	-3.03	46.0	11.68	Peak	285.00	100	Vertical	Pass
6	998.060	39.84	-1.21	54.0	14.16	Peak	338.00	100	Vertical	Pass

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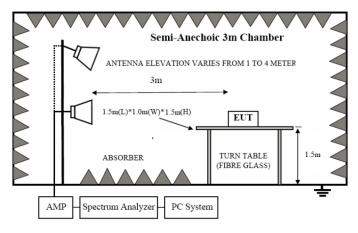


#### 7. Band Edge

#### 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:	3MODES 60% ALUMINUM RGB MECHANICAL KEYBOARD				Polar	ity		Horizontal	
	Mode	ŀ		Test Voltage Humidity		DC3.7V				
Te	mperature						56% RH			
Te	est Result:		Pas	SS						
	Part 15C Class B 1GHz-180 LOE+2- 90- 80- 70- 60-	GHz -2							M1	
level (dBuV/m)	50 - 40 - wijelywie interference 30 -	entre est qui contre vitible	endit independent of the second	วารจุกรุสินให้มีมีคระสูงการสุดภาษาสุดภาษา	n for a second and the second sec		13 Suserplanet United States		Ŋ	h h h h h h h h h h h h h h h h h h h
level (dBuV/m) NO.	50- 40-	Results	Factor	Limit	Frequency (MHz)			Height	ANT	2410 Verdic
	50- 40- 30- 20- 10- 2350				Frequency (MHz)	ngihida ila ila anti ila anti ila anti	Buserpir.com/un.youred		ANT	r
No.	50- 40- 30- 20- 10- 	Results	Factor	Limit	Frequency (MHz)	ngihida ila ila anti ila anti ila anti	Table	Height	ANT	r
No.	50- 40- 30- 20- 10-  2350 Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Frequency (MHz) Over Limit (dB)	Detector	Table (o)	Height (cm)		Verdic
	50- 40- 30- 20- 10- 2350 Frequency (MHz) 2402.262	Results (dBuV/m) 91.45	Factor (dB) -3.57	Limit (dBuV/m) 74.0	Frequency (MHz) Over Limit (dB) 17.45	Detector	Table (o) 162.00	Height (cm) 100	Horizontal	Verdic N/A

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]	Product:		3MODES 60% ALUMINUM RGB MECHANICAL KEYBOARD			Detect	or		Vertical	
Mode		] ]	Keeping Tr		Test Voltage		DC3.7V			
Те	emperature	24 deg. C,				Humidity			56% RH	
Te	est Result:		Pass							
	rt 15C Class B 1GHz-18GF E+2-	lz -2								
	90 - 80 - 70 - 60 -							1	M1	
level (dBuV/m)	50 - 40 - 40 - 40 - 40 - 40 - 40 - 40 - 4	by factories with by the second	internet and an and a second and	ut vekandten un på en lødetsk	and and a close of a contract of the second	M3	a giller mit blitte finde billing som	M2 •		
level (dBuV/m)	40	by Ju dad arren estas bet ar ander	inger internet		Frequency (MHz)	M3	n galan ni bisa da kating nan	M2 •		2410
	40	Results	Factor	Limit	Frequency (MHz)	M3	Table	Height	ANT	1
	40			Limit (dBuV/m)		her state of height indige	Table (o)	Height (cm)	ANT	1
No.	40- 40- 40- 40- 40- 40- 40- 40-	Results	Factor		Over Limit	her state of height indige		-	ANT Vertical	1
(w/\/mgp) level (dgn/\/w) No.	40- 40- 40- 20- 10- 2350 Frequency (MHz)	Results (dBuV/m)	Factor (dB)	(dBuV/m)	Over Limit (dB)	Detector	(0)	(cm)		Verdic
No.	40- 40- 20- 10- 2350 Frequency (MHz) 2402.397	Results (dBuV/m) 87.89	Factor (dB) -3.57	(dBuV/m) 74.0	Over Limit (dB) 13.89	Detector Peak	(o) 287.00	(cm) 100	Vertical	-

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]	Product:		3MODES 60% ALUMINUM RGB MECHANICAL KEYBOARD				olarity		Horizont	al	
	Mode		Test	Test Voltage		DC3.7V					
Te	mperature	24 0	leg. C,	Hı	Humidity		56% RH				
Те	Test Result: Pass										
CC Part 1 1.0E+	15C Class B 1GHz-18GH:	z -2									
1.021	2		M1								
g	-00		and the second s	www.iter							
8	30 -		_/								
				<u> </u>							
7	70-		1	<u>\</u>							
e	50-		<i>(</i>	<b>`</b>	<u>\</u>						
_ •	50-			N	2 1						
(m//m)	50 -			N	2 The second sec						
evel (dBuV/m)	40 -	Alexandrichterson auf Alexandrichter and an			A DAY OF A D	Million Harter & Lander Street	h, and its list have a	New State of the	and a second state of the second state of the	al all the all and all as a sec	
level (dBuV/m		den mar statistic and a state of the state o			A DAY OF A D	Mennensel Landra ferrig	the constitution of the second	Nurrfruitfilme prisination suffe	theoretalistical de seconde a de seconde de s	idaalah sebadah waxa	
level (dBuV/m	10 - <u> </u>	an a			A DAY OF A D	Marine Carlo Carlo Carlos	harren halar eta arren da arr	Nurseningdon, posturitan volta	namaterikkusunasajama	elastika allandaka neg	
level (dBuV/m	10- hallblinsseiderfligtbenreider	And the second			A DAY OF A D	Mineria i Landrig fateri i	hunnan kalan kapan ya	hansetssändense posisionalense politik	rigeretationel. In some och gib over	elastikasilan dakerang	
level (dBuV/m 2	10 - <u> </u>	in a start and a start and a start and a start			A DAY OF A D	Municul Landa Jonas	the constrained from the	Narfising na sala sala	ant the last and any	el <sub>e</sub> stitusiteteteterenze	
4 (dBuV/m 3 2 1	10					Mennesed samle for at	shereen state and a second	Norskingdon, ytaliogoan, sild	ngonesilenes, bie waar oo geboeren		
4 (dBuV/m 3 2 1	10			248		Mennesselssonleg for out	iju neversitetalandegan og	dan fi singdan, perio yaka yaka	ก <sub>าร</sub> มารังมีคุณไป ให้ เของและ ๆ รูปการะร	250	
4 (dBuV/m 3 2 1	10	Results	Factor		3.5	Detector	Table	Height	ANT	25	
4 (ggn/w 3 2 1	10		Factor (dB)	248	3.5 Frequency (MHz)						
4 (dgn/w 3 2 1	10- 10- 10- 10- 10- 2470 Frequency	Results		248 Limit	3.5 Frequency (MHz)		Table	Height		25	
۵/۱۹۳۵ (۱۹۹۹) معمور (۱۹۹۹) م	40- 10- 10- 2470 Frequency (MHz)	Results (dBuV/m)	(dB)	248 Limit (dBuV/m)	33.5 Frequency (MHz) Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	25 Verdic	

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]	Product:		ES 60% AI HANICAI		Detector			Vertical		
	Mode	ŀ	Keeping Tr	ansmitting		Test Voltage		DC3.7V		
Te	emperature 24 deg. C, Fest Result: Pass					Humidity		56% RH		
Те										
	rt 15C Class B 1GHz-18Gi E+2-r	-1z -2						1		
	90		MI	THURDING						
level (dBuV/m)	50 - 40 - 	and the second s	<u> </u>	M2	A MANNA MARKANIA	an de a de frances and a de anti-	hléderundesis kanyasan	iz festatet i signater MA	<b>લ્લો</b> યાંગ્લોનો તે <del>ક સ્ટ્રાઇ</del> ફ્રાઇન્ટ્રિસ	degun stratificate. Not
	40			2483.	5 Frequency (MHz)	T				2500
level (dBuV/m) NO.	40- 30- 20- 10- 0.0- 2470 Frequency	Results	Factor	Limit	5 Frequency (MHz) Over Limit	Detector	Table	Height	ANT	
	40		Factor (dB)		5 Frequency (MHz)	T				2500
No.	40- 30- 20- 10- 0.0- 2470 Frequency	Results		Limit	5 Frequency (MHz) Over Limit	T	Table	Height		2500
	40	Results (dBuV/m)	(dB)	Limit (dBuV/m)	5 Frequency (MHz) Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	2500 Verdic

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 -7.30dBi maximum. It fulfills the requirement of this section. Test Result: Pass

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#### 9.0 20dB Bandwidth Measurement

**Test Configuration** 



#### **Test Procedure**

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

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

#### Limit

N/A

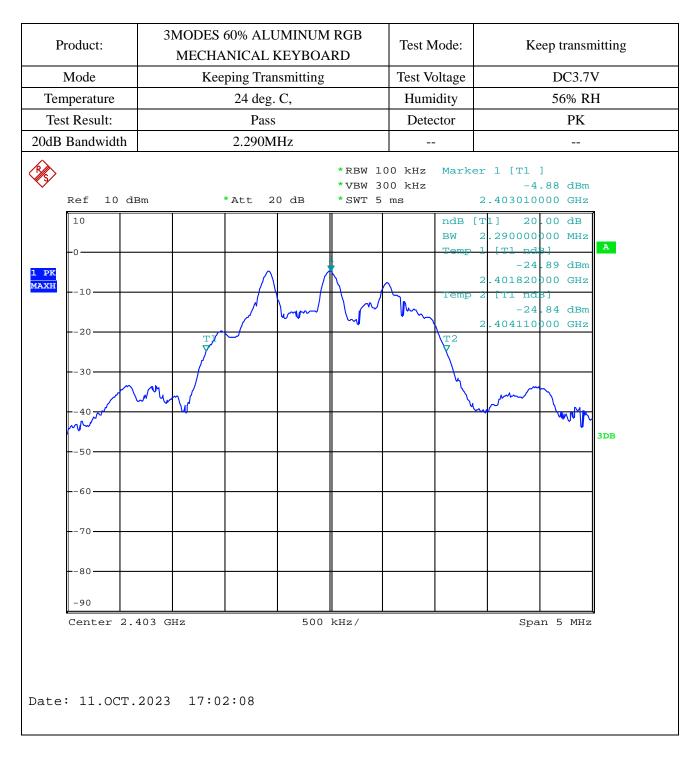
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#### **Test Result**



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Pr	Product: 3MODES 60% ALUMINUM MECHANICAL KEYBOA						Test Mode:		Keep transmitting		asmitting
N	Mode			ping Trar	nsmitting		Test	Test Voltage		DC3.7V	
Tem	Temperature 24 deg. C,					Hui	Humidity		56% RH		
Test	Test Result: Pass					De	tector		РК		
20dB	Bandwidth			2.280M	IHz						-
×	Ref 10 d	Bm	*	Att 2	0 dB	* RBW 10 * VBW 30 * SWT 5	00 kHz		-4 .440420	.70 dBm 000 GHz	1
1 PK MAXH	10				(		<u> </u>	Temp 1	.280000 [ <u>T1 nd</u> -24 .439830	.92 dBm 000 GHz	A
	20		TA		hum	J.M.	Ym_		-24	.66 dBm 000 GHz	
	-30	Vun						hu	mm		
	m 50									• •	3db
	60										
	-90 Center 2.	441 GH7			500	kHz/			Spa	an 5 MHz	
Date:	: 11.0CT			3:53					_		

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Product:	3MODES 60% ALUMINU MECHANICAL KEYBC		Test Mode:	Keep transmitting DC3.7V	
Mode	Keeping Transmittin	g	Test Voltage		
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:	Pass		Detector	PI	K
20dB Bandwidth	2.300MHz				
Ref 10 dB	m *Att 20 dB	*RBW 100 *VBW 300 *SWT 5 ms	kHz	1 [T1 ] -4.32 dBm .479420000 GHz	
10			ndB [T BW 2 <del>Temp 1</del>	.300000000 MHz [T1 ndB]	A
1 PK MAXH10			2 Temp 2	-24.02 dBm .478820000 GHz [T1 nd8]	
20	T		2 T2	-24.57 dBm .481120000 GHz	
30					
-40				man from	
50					3DB
60					
70					
-90 Center 2.4	8 GHz 500	) kHz/		Span 5 MHz	

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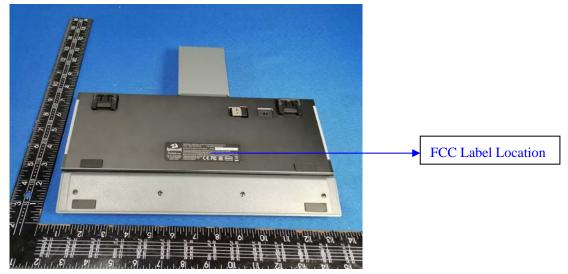
#### 10.0 FCC ID Label

#### FCC ID: TUVET-8876A

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

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

Mark Location:



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#### 11.0 Photo of testing

11.1 Conducted test View



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Radiated emission test view



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Outside View

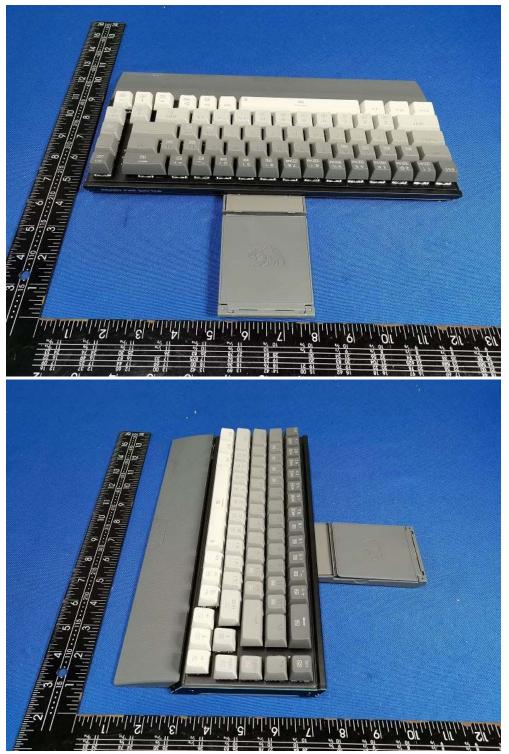
#### 11.2 Photographs - EUT

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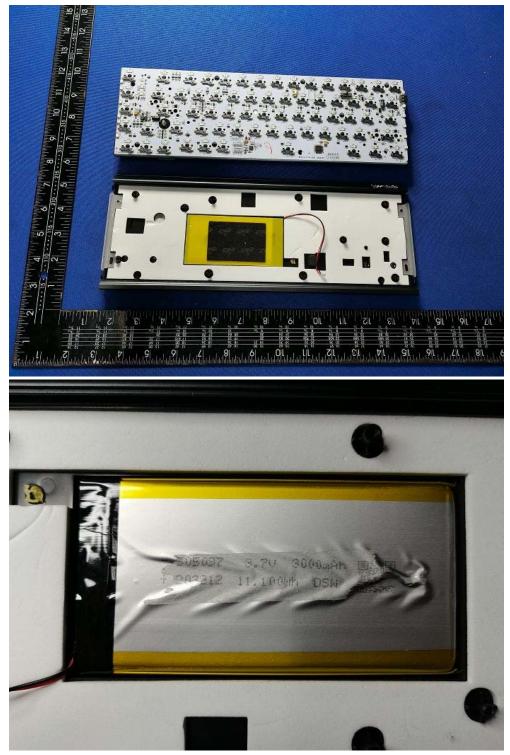
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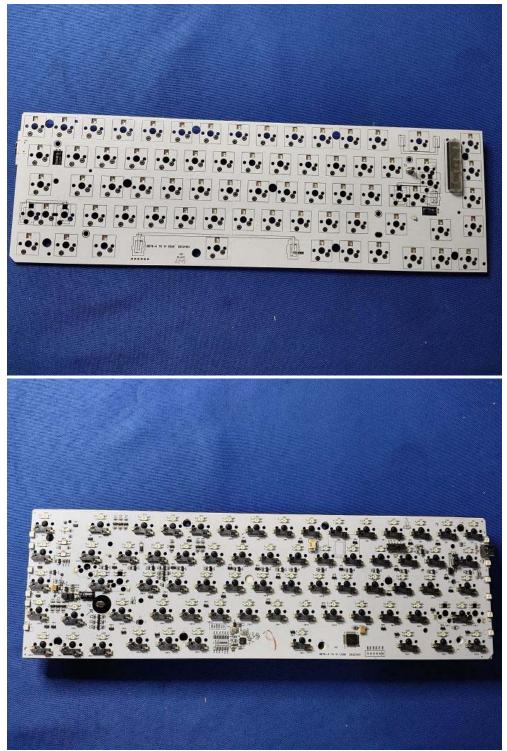
Inside View



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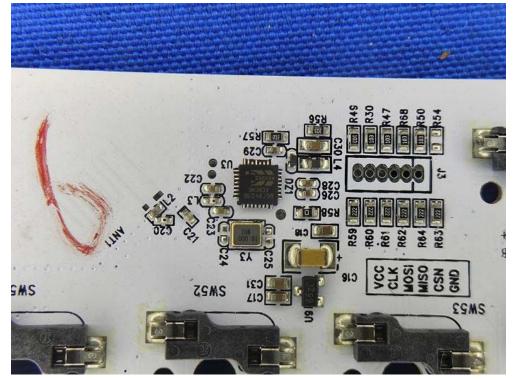
Inside View



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Inside View



--End of the report--

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