

Report No.: TW2410138-01E

Applicant: Eastern Times Technology Co.,Ltd

Product: Mechanical Keyboard

Model No.: Z-84, ET-7167, E10190, Z-84PRO

Trademark: E-YOOSO

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 long

Terry Tang

Manager

Dated: November 27, 2024

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

Report No.: TW2410138-01E Page 2 of 47

Date: 2024-11-27



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

Report No.: TW2410138-01E

Date: 2024-11-27



Test Report Conclusion

Content 1.0 General Details 1.1 Test Lab Details.... 1.2 Applicant Details. 4 1.3 Description of EUT 4 1.4 Submitted Sample.... 4 Test Duration. 1.5 5 5 1.6 Test Uncertainty. 1.7 Test By..... 5 2.0 List of Measurement Equipment..... 6 7 3.0 Technical Details..... 3.1 Summary of Test Results.... 7 3.2 7 Test Standards.... 4.0 EUT Modification.... 7 Power Line Conducted Emission Test.... 5.0 8 Schematics of the Test..... 5.1 8 5.2 Test Method and Test Procedure. 8 Configuration of the EUT..... 5.3 8 5.4 EUT Operating Condition. 9 Conducted Emission Limit. 9 5.5 5.6 Test Result.... 6.0 Radiated Emission test.... 12 Test Method and Test Procedure. 6.1 12 6.2 Configuration of the EUT.... 13 6.3 EUT Operation Condition. 13 Radiated Emission Limit. 14 6.4 6.5 Test Result.... 15 7.0 Band Edge.... 23 7.1 Test Method and Test Procedure. 23 7.2 Radiated Test Setup. 23 7.3 Configuration of the EUT.... 23 7.4 EUT Operating Condition. 23 7.5 Band Edge Limit..... 23 7.6 Band Edge Test Result. 24 8.0 Antenna Requirement..... 28 20dB bandwidth measurement.... 9.0 29 FCC ID Label.... 10.0 32

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

11.0

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Photo of Test Setup and EUT View....

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Report No.: TW2410138-01E

Date: 2024-11-27



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.

1.3 Description of EUT

Product: Mechanical Keyboard

Manufacturer: Eastern Times Technology Co.,Ltd

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

Dongguan City, Guangdong, China.

Trademark: E-YOOSO

Additional Trademark: N/A Model Number: Z-84

Additional Model Name ET-7167, E10190, Z-84PRO

Hardware Version: 8909-E TX V1

Software Version: 1F92

Serial No.: Z8424072500880

Rating: DC3.7V, 35mA; DC5V, 500mA Battery: DC3.7V, 1600mAh Li-ion battery

Modulation Type: GFSK, 月/4DQPSK Operation Frequency: 2402-2480MHz

Channel Separate: 1MHz Channel Number: 79

Antenna Designation PCB antenna with gain 0dBi Max (Get from the antenna specification)

1.4 Submitted Sample: 2 Samples

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Report No.: TW2410138-01E Page 5 of 47

Date: 2024-11-27



1.5 Test Duration

2024-10-29 to 2024-11-27

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: Terry Tang

Page 6 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



2.0 Test Equipment	2.0 Test Equipment						
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date		
ESPI Test Receiver	R&S	ESPI 3	100379	2024-07-12	2025-07-11		
LISN	R&S	EZH3-Z5	100294	2024-07-12	2025-07-11		
LISN	R&S	EZH3-Z5	100253	2024-07-12	2025-07-11		
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2024-07-12	2025-07-11		
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17		
Spectrum	R&S	FSIQ26	100292	2024-07-12	2025-07-11		
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	2025-07-17		
Power meter	Anritsu	ML2487A	6K00003613	2024-07-12	2025-07-11		
Power sensor	Anritsu	MA2491A	32263	2024-07-12	2025-07-11		
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17		
9*6*6 Anechoic		1	N/A	2022-07-26	2025-07-25		
EMI Test Receiver	RS	ESVB	826156/011	2024-07-12	2025-07-11		
EMI Test Receiver	RS	ESCS 30	834115/006	2024-07-12	2025-07-11		
Spectrum	HP/Agilent	E4407B	MY50441392	2024-07-12	2025-07-11		
Spectrum	RS	FSP	1164.4391.38	2024-07-12	2025-07-11		
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA	-	2024-07-12	2025-07-11		
RF Cable	Zhengdi	7m		2024-07-12	2025-07-11		
Pre-Amplifier	Schwarebeck	BBV9743	#218	2024-07-12	2025-07-11		
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2024-07-12	2025-07-11		
LISN	SCHAFFNER	NNB42	00012	2024-07-12	2025-07-11		
ESPI Test Receiver	R&S	ESPI 3	100379	2024-07-12	2025-07-11		
LISN	R&S	EZH3-Z5	100294	2024-07-12	2025-07-11		

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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Page 7 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



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 15.203	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

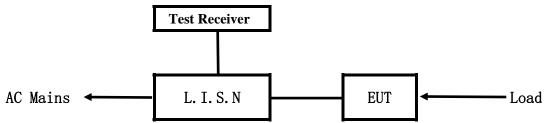
Report No.: TW2410138-01E

Date: 2024-11-27



5. Power Line Conducted Emission Test

5.1 Schematics of the test

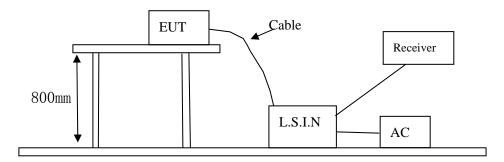


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. 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
Mechanical Keyboard	Eastern Times	Z-84, ET-7167, E10190,	TUVET-8909E
Mechanical Reyboard	Technology Co.,Ltd	Z-84PRO	10 VE1-0909E

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Report No.: TW2410138-01E Page 9 of 47

Date: 2024-11-27



B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	Rating
Power Supply	KEYU	KA23-0502000DEU	Input: 100-240V~, 50/60Hz, 0.35A;
			Output: DC5V, 2A

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013

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

5.5 Power line conducted Emission Limit according to Paragraph 15.207

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

Notes:

- 1. *Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

5.6 Test Results:

Pass

Date: 2024-11-27



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

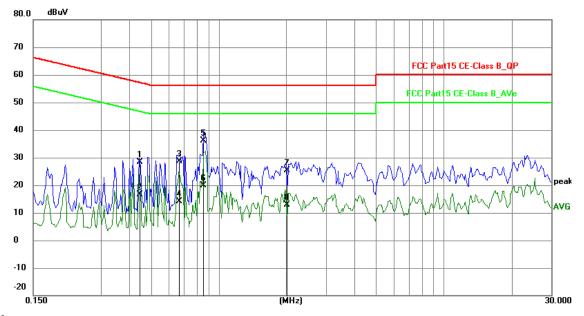
EUT Operating Environment

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

EUT set Condition: Charging and 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	0.4464	18.64	9.77	28.41	56.94	-28.53	QP	Р
2	0.4464	6.89	9.77	16.66	46.94	-30.28	AVG	Р
3	0.6648	18.93	9.78	28.71	56.00	-27.29	QP	Ъ
4	0.6648	4.38	9.78	14.16	46.00	-31.84	AVG	Р
5	0.8559	26.40	9.78	36.18	56.00	-19.82	QP	Ъ
6	0.8559	10.20	9.78	19.98	46.00	-26.02	AVG	Р
7	2.0025	15.47	9.80	25.27	56.00	-30.73	QP	Р
8	2.0025	3.15	9.80	12.95	46.00	-33.05	AVG	Р

Report No.: TW2410138-01E

Date: 2024-11-27



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

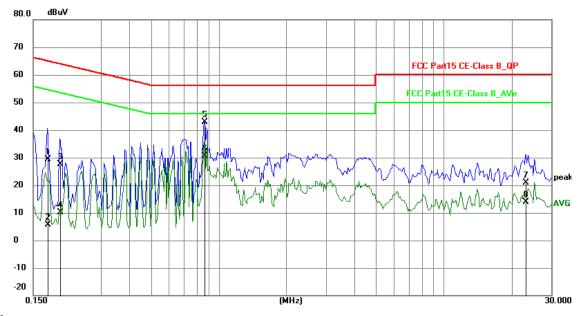
EUT Operating Environment

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

EUT set Condition: Charging and 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	19.64	9.77	29.41	64.80	-35.39	QP	Р
2	0.1734	-4.05	9.77	5.72	54.80	-49.08	AVG	Р
3	0.1968	17.82	9.75	27.57	63.74	-36.17	QP	Р
4	0.1968	0.43	9.75	10.18	53.74	-43.56	AVG	Р
5	0.8637	33.07	9.79	42.86	56.00	-13.14	QP	Р
6	0.8637	20.90	9.79	30.69	46.00	-15.31	AVG	J
7	23.1123	9.92	10.87	20.79	60.00	-39.21	QP	П
8	23.1123	2.95	10.87	13.82	50.00	-36.18	AVG	Р

Report No.: TW2410138-01E Page 12 of 47

Date: 2024-11-27

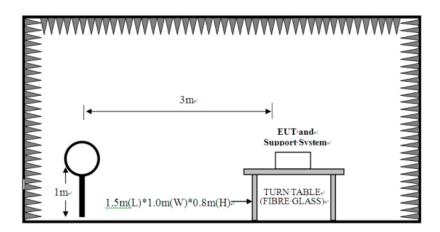


6 Radiated Emission Test

- 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



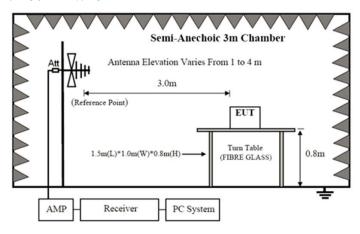
Page 13 of 47

Report No.: TW2410138-01E

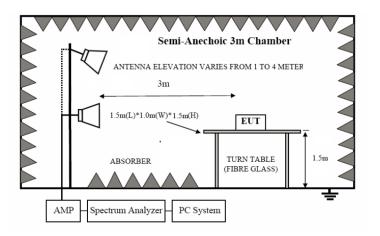
Date: 2024-11-27



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.

Report No.: TW2410138-01E Page 14 of 47

Date: 2024-11-27



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 Strength of Fundamental (3m)			Frequency Field Strength of Fundamental (3m) Field Strength of Harmonics (3m)			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)
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 $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 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. The two modulation modes of GFSK and Pi/4D-QPSK were tested. And only the worst case was recorded in the test report. GFSK was the worst case.
- 6. Battery full charged was used during tests

Report No.: TW2410138-01E Page 15 of 47

Date: 2024-11-27

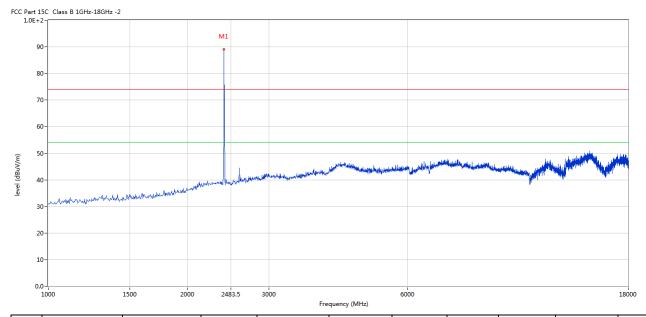


6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

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

Horizontal



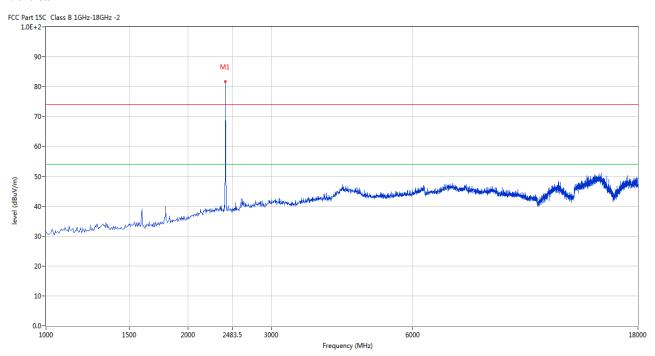
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402	89.00	-3.57	74.0	15.00	Peak	316.00	100	Horizontal	N/A

Report No.: TW2410138-01E Page 16 of 47

Date: 2024-11-27



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402	81.72	-3.57	74.0	7.72	Peak	299.00	100	Vertical	N/A

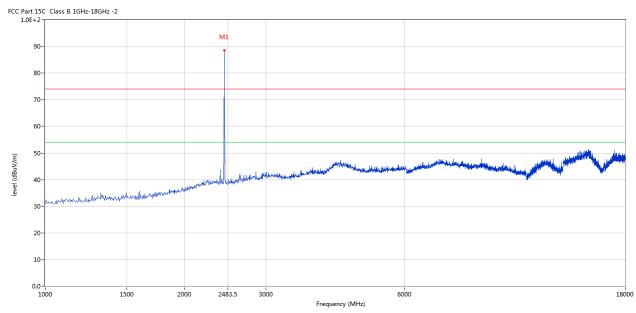
Report No.: TW2410138-01E Page 17 of 47

Date: 2024-11-27



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

Horizontal



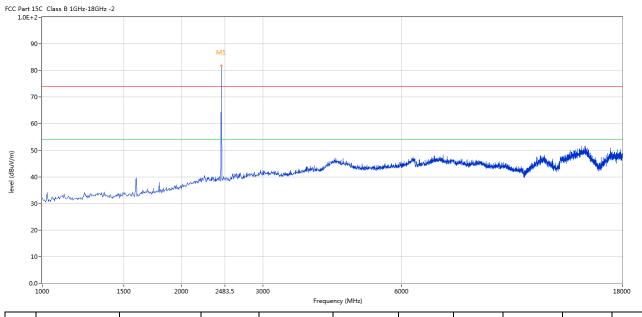
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	88.51	-3.57	74.0	14.51	Peak	185.00	100	Horizontal	N/A

Report No.: TW2410138-01E Page 18 of 47

Date: 2024-11-27



Vertical



ı	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
•	1	2441	81.74	-3.57	74.0	7.74	Peak	37.00	100	Vertical	N/A

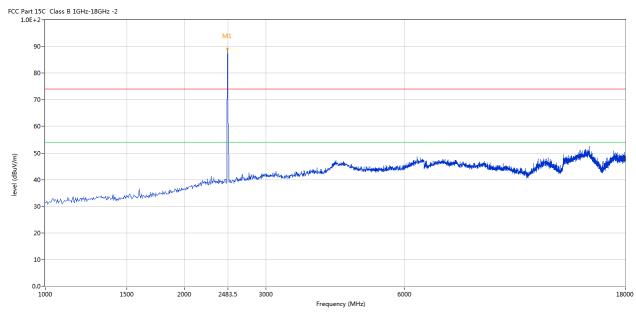
Report No.: TW2410138-01E Page 19 of 47

Date: 2024-11-27



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

Horizontal



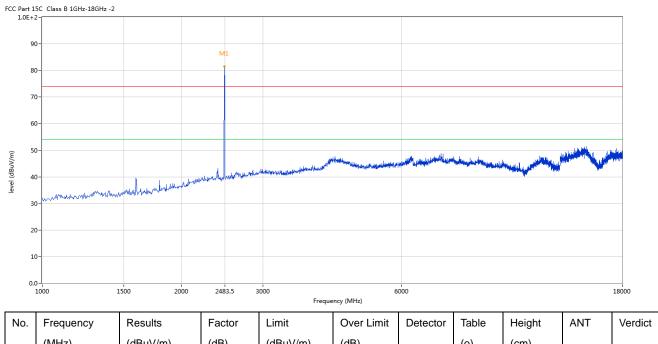
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	89.16	-3.57	74.0	15.16	Peak	167.00	100	Horizontal	N/A

Report No.: TW2410138-01E Page 20 of 47

Date: 2024-11-27



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	81.50	-3.57	74.0	7.50	Peak	36.00	100	Vertical	N/A

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.

Report No.: TW2410138-01E Page 21 of 47

Date: 2024-11-27



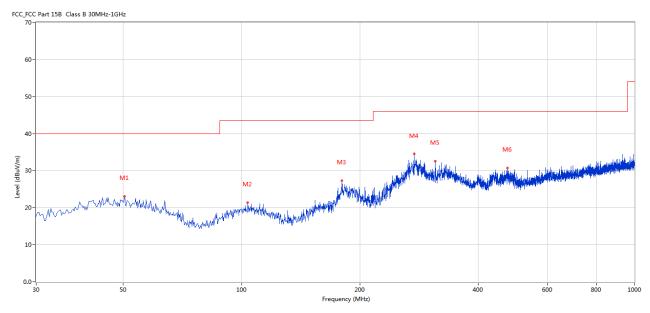
B. General Radiated Emission Data

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

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	50.365	23.10	-11.39	40.0	16.90	Peak	319.00	100	Horizontal	Pass
2	103.702	21.31	-13.35	43.5	22.19	Peak	15.00	100	Horizontal	Pass
3	180.070	27.28	-15.31	43.5	16.22	Peak	266.00	100	Horizontal	Pass
4	275.106	34.47	-11.65	46.0	11.53	Peak	256.00	100	Horizontal	Pass
5	310.987	32.59	-10.73	46.0	13.41	Peak	284.00	100	Horizontal	Pass
6	475.361	30.66	-7.43	46.0	15.34	Peak	44.00	100	Horizontal	Pass

Report No.: TW2410138-01E Page 22 of 47

Date: 2024-11-27

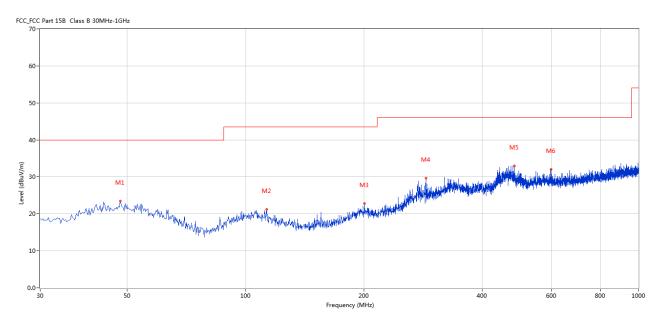


Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	47.941	23.42	-11.30	40.0	16.58	Peak	118.00	100	Vertical	Pass
2	113.157	21.29	-14.06	43.5	22.21	Peak	266.00	100	Vertical	Pass
3	200.677	22.80	-13.44	43.5	20.70	Peak	325.00	100	Vertical	Pass
4	287.713	29.69	-11.28	46.0	16.31	Peak	319.00	100	Vertical	Pass
5	482.877	33.01	-7.38	46.0	12.99	Peak	182.00	100	Vertical	Pass
6	599.490	32.03	-5.01	46.0	13.97	Peak	338.00	100	Vertical	Pass

Report No.: TW2410138-01E

Date: 2024-11-27

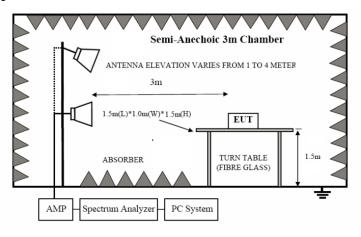


7. Band Edge

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.

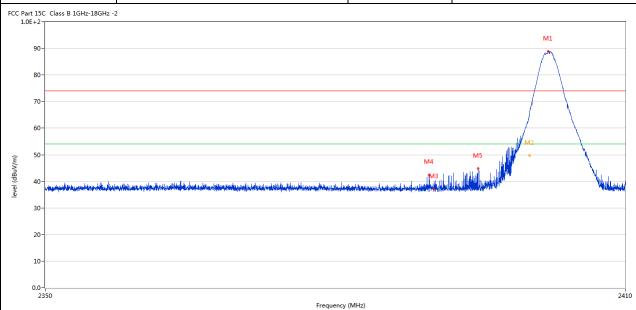
Report No.: TW2410138-01E Page 24 of 47

Date: 2024-11-27



7.6 Test Result

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

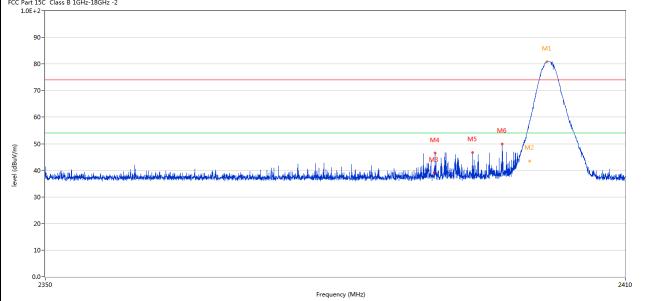


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2401.932	88.82	-3.57	74.0	14.82	Peak	317.00	100	Horizontal	N/A
2	2400.012	65.19	-3.57	74.0	-8.81	Peak	311.00	100	Horizontal	Pass
2**	2400.012	49.81	-3.57	54.0	-4.19	AV	311.00	100	Horizontal	Pass
3	2390.040	37.17	-3.53	74.0	-36.83	Peak	136.00	100	Horizontal	Pass
4	2389.560	42.28	-3.53	74.0	-31.72	Peak	1.00	100	Horizontal	Pass
5	2394.614	44.79	-3.55	74.0	-29.21	Peak	162.00	100	Horizontal	Pass

Page 25 of 47 Report No.: TW2410138-01E

Date: 2024-11-27





	······································										
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict	
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)			
1	2401.842	80.94	-3.57	74.0	6.94	Peak	36.00	100	Vertical	N/A	
2	2400.027	58.70	-3.57	74.0	-15.30	Peak	41.00	100	Vertical	Pass	
2**	2400.027	43.51	-3.57	54.0	-10.49	AV	41.00	100	Vertical	Pass	
3	2390.040	39.20	-3.53	74.0	-34.80	Peak	41.00	100	Vertical	Pass	
4	2390.160	46.56	-3.53	74.0	-27.44	Peak	110.00	100	Vertical	Pass	
5	2394.044	46.70	-3.55	74.0	-27.30	Peak	125.00	100	Vertical	Pass	
6	2397.163	49.87	-3.56	74.0	-24.13	Peak	114.00	100	Vertical	Pass	

Report No.: TW2410138-01E Page 26 of 47

Date: 2024-11-27



]	Product:	N	Iechanical	Keyboard		Polarity		Н	orizontal	
	Mode	K	eeping Tra	nsmitting	Т	est Voltag	e	I	DC3.7V	
Te	mperature		24 deg	g. C,		Humidity		5	66% RH	
Te	est Result:		Pas	S						
C Part 1	L5C Class B 1GHz-18GHz	z -2			•		•			
			M1							
9	0-		<u></u>	M						
8	0-									
7	0-									
6	0-		f	1						
•		ı di kirir	V	1	<u>.</u>					
. 5	0-			M2	1					
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	0-									
2	0-									
-										
1	0-									
	0- 2470			2483	.5					2500
	1		1	1	Frequency (MHz)	1	1	·		1
Vo.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdi
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(0)	(cm)		
1	2479.830	89.15	-3.57	74.0	15.15	Peak	169.00	100	Horizontal	N/A
2	2483.500	54.02	-3.57	74.0	-19.98	Peak	175.43	100	Horizontal	Pass
2**	2483.500	38.86	-3.57	54.0	-15.14	AV	175.43	100	Horizontal	Pass

Page 27 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



]	Product:	Me	chanical k	Keyboard	De	etector		Ve	rtical	
	Mode	Ke	eping Tran	nsmitting	Test	Voltage		DC	23.7V	
Te	mperature		24 deg.	C,	Hu	ımidity		569	% RH	
Te	est Result:		Pass							
CC Part 1	L5C Class B 1GHz-18GHz -	2								
9	10-		M1							
8	60-		from							
7	70-									
	_									
6	60-		/							
_		. 11. 10	/	M2						
_			/	M2	~ ah di Jada kanta n		مرالات مالات	و المالية ا	المستعدد والمستعدد المستعدد ا	.1. 10
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(iii/Appr) 54		under with the detailed by the constitution of	-	M2	war with the trade of the line	ara at bala anna a land	المرافعين المرافعين	along list to select the desire of	المالية المعاونة المالية	A Prince
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(iii/angg) 44 34 24 14 14 14 14 14 14 1		under Heilande der Steine der Ste		2483.5	equency (MHz)	aranik de kandara di pad	ik dhan madilika	idraellai weithralana bloch weisend	della degreca esperadente	2500
(W/nngp) Javai 3:		Results	Factor	2483.5		Detector	Table	Height	ANT	2500
(iii/Appa) 44 33 22 11	0-2470		Factor (dB)	2483.5 F	requency (MHz)					2500
(w/nngp) lawai 3.0 2.0 1.0 0.0	00- 00- 00- 00- 00- 00- 00- 00- 00- 00-	Results		2483.5 F	equency (MHz) Over Limit		Table	Height		

Note: 1. The PK emission level less than the AV limit. No necessary to record the AV emission level.

2. The two modulation modes of GFSK and Pi/4D-QPSK were tested. And only the worst case was recorded in the test report. GFSK was the worst case.

Report No.: TW2410138-01E

Date: 2024-11-27



Page 28 of 47

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 0dBi maximum. It fulfills the requirement of this section.

Test Result: Pass

Page 29 of 47

Span 3 MHz

Report No.: TW2410138-01E

Date: 2024-11-27



9.0 20dB Bandwidt	h Measurement				
GFSK					
Product:	Mechanical	Keyboard	Test Mode:	Keep trans	smitting
Mode	Keeping Tra	ansmitting	Test Voltage	DC3.	7V
Temperature	24 deg	g. C,	Humidity	56% 1	RH
Test Result:	Pas	SS	Detector	PK	·
20dB Bandwidth	864k	Hz			
Ref 10 di 10	3m * Att 20	*RBW 30 1 *VBW 100 0 dB SWT 5 m	hHz ndB [T] BW 864. Temp 1 2.	1 [T1]	A
				~	3DB

Date: 6.NOV.2024 13:10:39

Center 2.402 GHz

-90

300 kHz/

Page 30 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Product:	Mechanical Keyboard				Test	Test Mode:		Keep transmitting		
Mode	Kee	eping Transm	itting		Test	Voltage		DC3	.7V	
Temperature		24 deg. C,			Hur	midity	56% RH			
Test Result:		Pass			De	tector		PI	ζ	
20dB Bandwidth		876kHz								
Ref 10 d	Bm	*Att 20 d	lB	*RBW 30 *VBW 10 SWT 5	00 kHz	2	.440826	.77 dBm 000 GHz		
10						ndB [T	1] 20 .000000	.00 dB		
-0-			1			Temp 1	[T1 nd	B.]	A	
PK			$\langle \nabla \nabla \rangle$	$\setminus \Lambda$		2		.39 dBm		
-10				*\		Temp 2	[TI nd	Bj		
		T1/		4	aT2	2	-21 .441414			
-20		Y			MIZ.			300 0112		
20		/ ~								
-30	<i></i>				`	_				
40	/~~\/					1	~\		3DB	
-50							A.	mand		
-60										
-70										
- 70										
80										
-90										
Center 2.	441 GHz		300 1	kHz/			Spa	n 3 MHz		

Page 31 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Product:	Me	lechanical Keyboard			Test Mode:		Keep transmitting		
Mode	ing	Test Voltage			DC3.7V				
Temperature		24 deg. C,		Huı	midity	56% RH			
Test Result:		Pass		De	tector		PK		
20dB Bandwidth		876kHz							
Ref 10 d	Bm	*Att 20 dB	*RBW 30 *VBW 10 SWT 5	00 kHz		1 [T1 -1.479826	.23 dBm		
10					ndB [T		.00 dB		
-0		1			BW 876	.000000.	000 kHz	A	
1 PK		\ \ \	\sim			-20	.77 dBm		
-10			- 1		Temp 2	.479538 [T1 nd	_		
		/V	\mathcal{A}				.17 dBm		
-20		T1/~		N_{χ}^{T2}	2	.480414	000 GHz		
				M					
30	<i></i>								
-40	m				\vdash	۸.۸			
50	/ ~\/				\\/			3DB	
-50						V	www.		
60									
-70									
-80									
-90									
Center 2.	48 GHz	3	00 kHz/			Spa	ın 3 MHz		

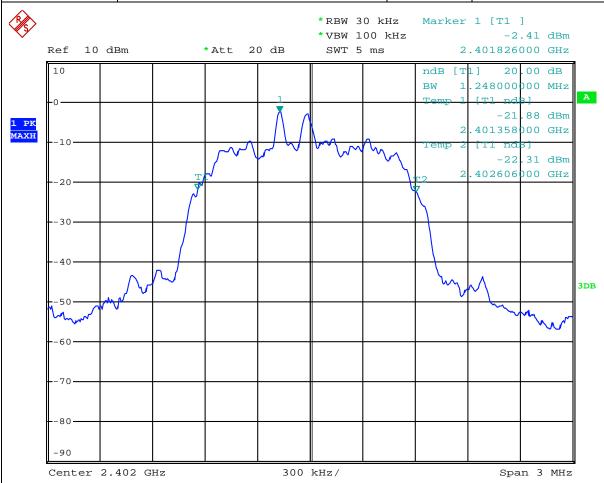
Page 32 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Л/4DQPSK			
Product:	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	1.248MHz		



Date: 6.NOV.2024 13:31:24

Page 33 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Product:	Mechanical Key	chanical Keyboard		Keep transmitting	
Mode	Keeping Transm	itting	Test Voltage	DC3.7V	
Temperature	24 deg. C,		Humidity	56%	RH
Test Result:	Pass		Detector	PK	
0dB Bandwidth	1.248MHz				
Ref 10 d	Bm *Att 20 d	*RBW 30 *VBW 100 B SWT 5 m	kHz s 2	1 [T1] -1.76 dBm .440826000 GHz	
-0		1	ndB [T BW 1 Temp 1	.248000000 MHz	A
PK AXH 10		1 Amm	Temp 2	.440358000 GHz [T1 nds] -21.74 dBm .441606000 GHz	
30	TA TA		r2 2	.141000000 GHZ	
40	^ ^				
-50					3DB
-60					
80					
-90					
Center 2.	441 GHz	300 kHz/	<u> </u>	Span 3 MHz	ļ

Page 34 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Product:	Mechanical Keyboard				Test Mode:		Keep transmitting		
Mode	Keepin	g Transmitting		Test V	Voltage		DC3.	7V	
Temperature	2	4 deg. C,			nidity	56% RH			
Test Result:		Pass		Det	ector		PK		
OdB Bandwidth	1.	.254MHz							
Ref 10 di	3m *At	t 20 dB	*RBW 30 *VBW 10 SWT 5	0 kHz	2	.479826	.22 dBm 000 GHz		
0		1 1			ndB [T BW 1 Temp 1	.254000 [Tl nd		A	
PK AXH 10		~~	·~~	~	2 Temp 2	.479352 [Tl nd	000 GHz		
-20					r2 2	.480606			
40									
50					~~		w	3DB	
-60							w		
70									
-80									
-90 Center 2.	18 CUZ	300 k	-Uz /			gn a	n 3 MHz		

Report No.: TW2410138-01E Page 35 of 47

Date: 2024-11-27



10.0 FCC ID Label

FCC ID: TUVET-8909E

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:



Page 36 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



11.0 Photo of testing

11.1 Conducted test View--



Page 37 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Radiated emission test view-





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Report No.: TW2410138-01E

Date: 2024-11-27



Photographs - EUT

Outside View





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Page 39 of 47

Report No.: TW2410138-01E

Date: 2024-11-27







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Page 40 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Outside View



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Page 41 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Inside View





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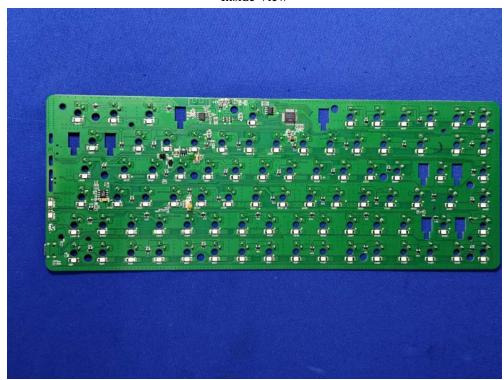
Page 42 of 47

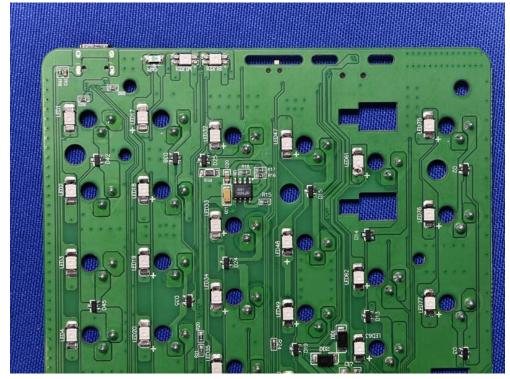
Report No.: TW2410138-01E

Date: 2024-11-27



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Page 43 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Inside View



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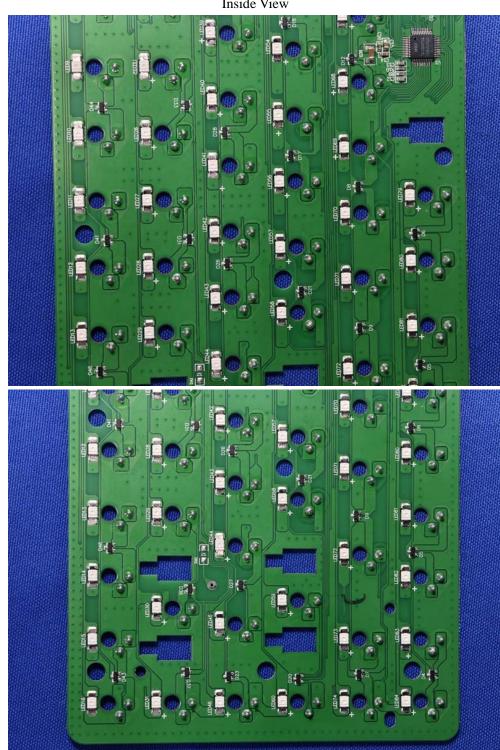
Page 44 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Inside View



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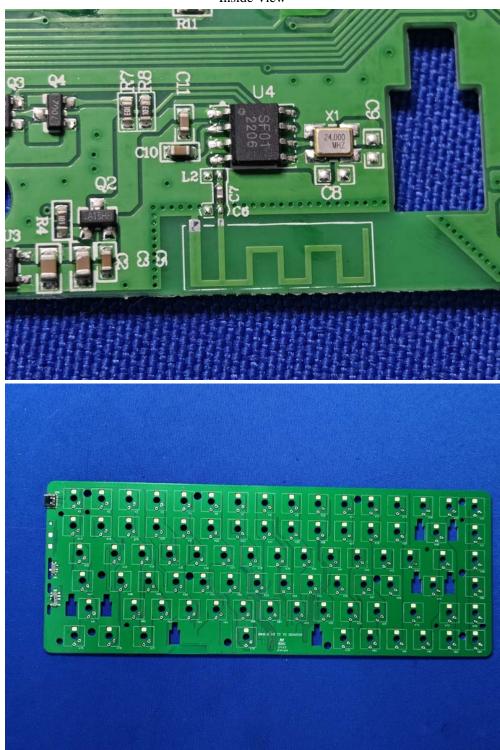
Page 45 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Inside View



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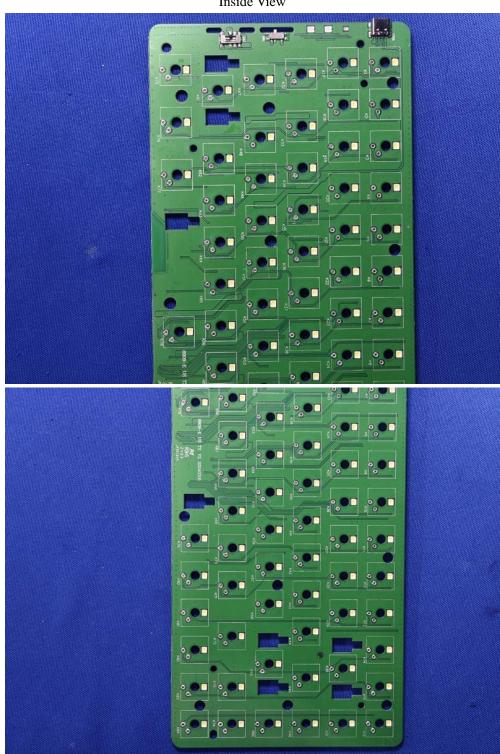
Page 46 of 47

Report No.: TW2410138-01E

Date: 2024-11-27



Inside View



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

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Report No.: TW2410138-01E Page 47 of 47

Date: 2024-11-27



Inside View



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