

Applicant: Eastern Times Technology Co.,Ltd

Product: WIRELESS 100 KEYS HOT-SWAPPABLE MECHANICAL

KEYBOARD

Model No.: K656-RGB-PRO, ET-8857, K656WB-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 Tang

Manager

Dated: July 06, 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

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.: TW2305239-01E Page 2 of 42

Date: 2023-07-06



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 17025:2017 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

CAB identifier: CN0033

Date: 2023-07-06



Test Report Conclusion

Content

1.0	General Details	4
1.1	Test Lab Details	4
1.2	Applicant Details	4
1.3	Description of EUT	4
1.4	Submitted Sample	4
1.5	Test Duration.	5
1.6	Test Uncertainty	5
1.7	Test By	5
2.0	List of Measurement Equipment	6
3.0	Technical Details	7
3.1	Summary of Test Results	7
3.2	Test Standards	7
4.0	EUT Modification.	7
5.0	Power Line Conducted Emission Test.	8
5.1	Schematics of the Test	8
5.2	Test Method and Test Procedure	8
5.3	Configuration of the EUT	8
5.4	EUT Operating Condition	9
5.5	Conducted Emission Limit.	9
5.6	Test Result.	9
6.0	Radiated Emission test	12
6.1	Test Method and Test Procedure	12
6.2	Configuration of the EUT	13
6.3	EUT Operation Condition	13
6.4	Radiated Emission Limit	13
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
9.0	20dB bandwidth measurement	29
10.0	FCC ID Label	32
11.0	Photo of Test Setup and EUT View.	33

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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: WIRELESS 100 KEYS HOT-SWAPPABLE 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: K656-RGB-PRO

Additional Model Name ET-8857, K656WB-RGB-PRO
Rating: DC5V, 860mA or DC3.7V, 360mA
Battery DC3.7V, 3000mAh Li-ion battery

Modulation Type: GFSK

Operation Frequency: 2403-2480MHz

Channel Number: 16

Channel List (Unit: MHz): 2403, 2463, 2441, 2426, 2408, 2466, 2445, 2422, 2414, 2471, 2459, 2436,

2419, 2480, 2453, 2439

Hardware Version: 8857-A V1 Software Version: 5807

Serial No.: RDK656WB-RGB-PRO23041500937

Antenna Designation PCB antenna with gain 2.34dBi Max (Get from the antenna specification)

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Report No.: TW2305239-01E Page 5 of 42

Date: 2023-07-06



1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2023-05-22 to 2023-07-06

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

Page 6 of 42

Report No.: TW2305239-01E

Date: 2023-07-06



2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2022-07-15	2023-07-14
LISN	R&S	EZH3-Z5	100294	2022-07-18	2023-07-17
LISN	R&S	EZH3-Z5	100253	2022-07-18	2023-07-17
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2022-07-18	2023-07-17
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2022-07-15	2023-07-14
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	2022-07-18	2023-07-17
Power sensor	Anritsu	MA2491A	32263	2022-07-18	2023-07-17
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	2022-07-15	2023-07-14
EMI Test Receiver	RS	ESCS 30	834115/006	2022-07-15	2023-07-14
Spectrum	HP/Agilent	E4407B	MY50441392	2022-07-15	2023-07-14
Spectrum	RS	FSP	1164.4391.38	2022-07-15	2023-07-14
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2022-07-15	2023-07-14
RF Cable	Zhengdi	7m		2022-07-15	2023-07-14
Pre-Amplifier	Schwarebeck	BBV9743	#218	2022-07-15	2023-07-14
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2022-07-15	2023-07-14
LISN	SCHAFFNER	NNB42	00012	2022-08-18	2023-07-17
ESPI Test Receiver	R&S	ESPI 3	100379	2022-07-15	2023-07-14
LISN	R&S	EZH3-Z5	100294	2022-07-18	2023-07-17

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 42

Report No.: TW2305239-01E

Date: 2023-07-06



3.0 Technical Details

3.1 Summary of test results

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

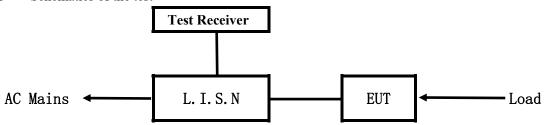
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

Date: 2023-07-06



5. Power Line Conducted Emission Test

5.1 Schematics of the test

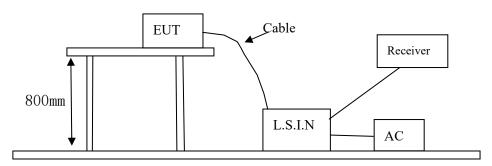


EUT: Equipment Under Test

5.2 Test Method and test Procedure

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

Test Voltage: 120V~, 60Hz Block diagram of Test setup



5.3 Configuration of the EUT

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

16 channels are provided to the EUT

A. EUT

Device	Manufacturer	Model	FCC ID
WIRELESS 100 KEYS HOT-SWAPPABLE MECHANICAL KEYBOARD	Eastern Times Technology Co.,Ltd	K656-RGB-PRO, ET-8857, K656WB-RGB-PRO	TUVET-8857A

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Report No.: TW2305239-01E Page 9 of 42

Date: 2023-07-06



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 C63.4 -2014

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

5.5 Power line conducted Emission Limit according to Paragraph 15.207

<u> </u>						
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: 2023-07-06



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

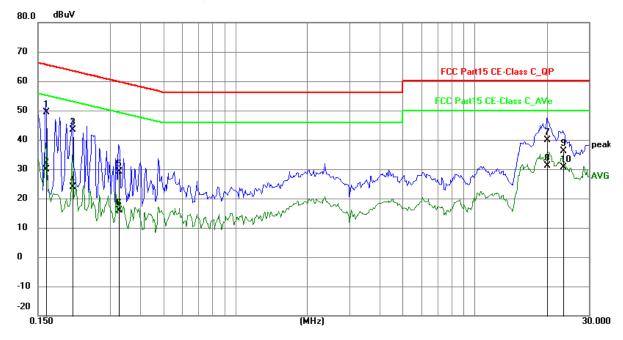
EUT Operating Environment

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

EUT set Condition: Charging and Keep Transmitting

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	0.1617	39.55	9.78	49.33	65.38	-16.05	QP	Р
2	0.1617	20.21	9.78	29.99	55.38	-25.39	AVG	Р
3	0.2085	33.63	9.75	43.38	63.26	-19.88	QP	Р
4	0.2085	14.15	9.75	23.90	53.26	-29.36	AVG	Р
5	0.3255	19.43	9.76	29.19	59.57	-30.38	QP	Р
6	0.3255	6.18	9.76	15.94	49.57	-33.63	AVG	Р
7	20.0274	29.31	10.68	39.99	60.00	-20.01	Q Q	Р
8	20.0274	20.56	10.68	31.24	50.00	-18.76	AVG	Р
9	23.4126	25.31	10.89	36.20	60.00	-23.80	QP	Р
10	23.4126	19.86	10.89	30.75	50.00	-19.25	AVG	Р

Date: 2023-07-06



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

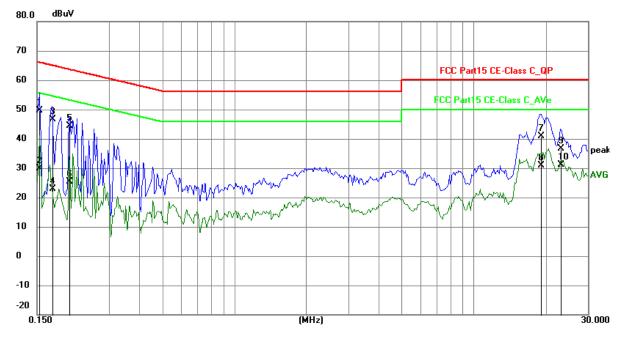
EUT Operating Environment

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

EUT set Condition: Charging and Keep Transmitting

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	0.1539	39.80	9.78	49.58	65.79	-16.21	QP	Р
2	0.1539	20.15	9.78	29.93	55.79	-25.86	AVG	Р
3	0.1734	36.76	9.77	46.53	64.80	-18.27	QP	Р
4	0.1734	13.05	9.77	22.82	54.80	-31.98	AVG	Р
5	0.2046	34.54	9.75	44.29	63.42	-19.13	QP	Р
6	0.2046	15.58	9.75	25.33	53.42	-28.09	AVG	Р
7	19.1031	30.26	10.63	40.89	60.00	-19.11	QP	Р
8	19.1031	20.23	10.63	30.86	50.00	-19.14	AVG	Р
9	23.0772	25.67	10.87	36.54	60.00	-23.46	QP	Р
10	23.0772	20.16	10.87	31.03	50.00	-18.97	AVG	Р

Page 12 of 42

Report No.: TW2305239-01E

Date: 2023-07-06

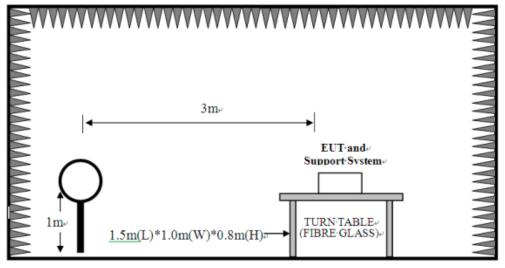


6 Radiated Emission Test

- 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

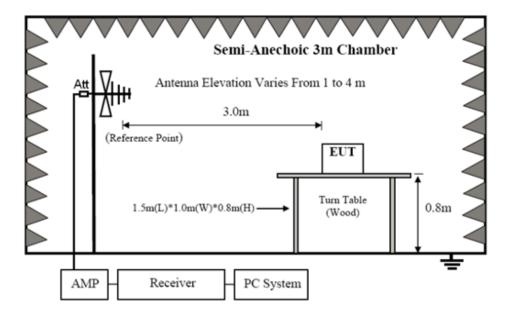
For radiated emissions from 9kHz to 30MHz



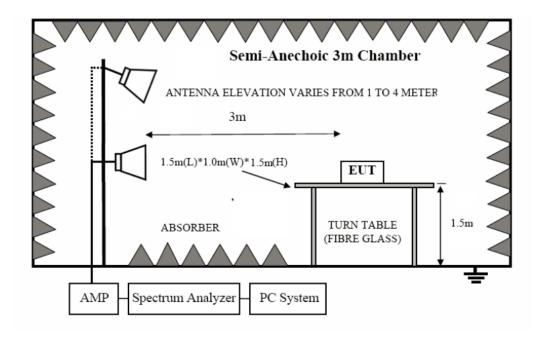
For radiated emissions from 30MHz to1GHz

Date: 2023-07-06





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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Report No.: TW2305239-01E Page 14 of 42

Date: 2023-07-06



6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

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

Fundamental Frequency	Field Stre	ength of Fundame	ntal (3m)	Field S	trength of Harmo	onics (3m)
(MHz)	mV/m	dBuV/m uV/m dBuV/m			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
30-80	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
- 6. Battery full charged during tests.

Report No.: TW2305239-01E Page 15 of 42

Date: 2023-07-06

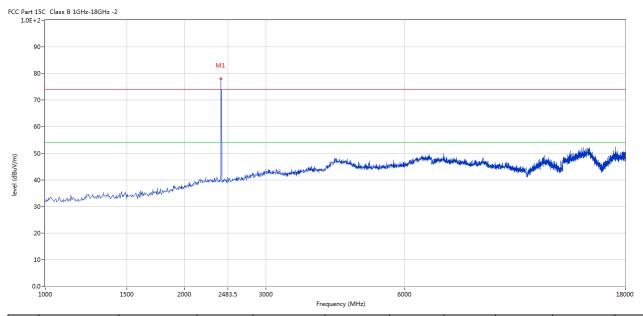


6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

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

Horizontal



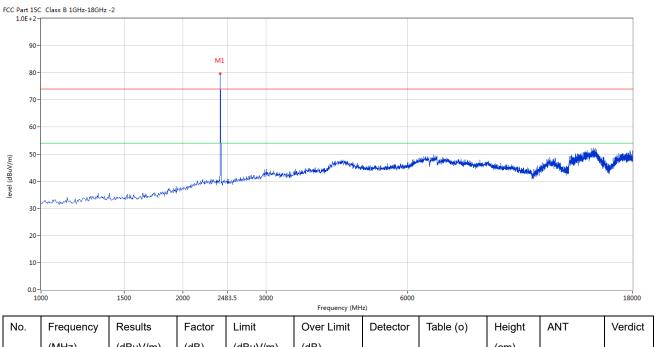
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2403	78.15	-3.57	114.0	-35.85	Peak	154.00	100	Horizontal	Pass

Report No.: TW2305239-01E Page 16 of 42

Date: 2023-07-06



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2403	79.75	-3.57	114.0	-34.25	Peak	177.00	100	Vertical	Pass

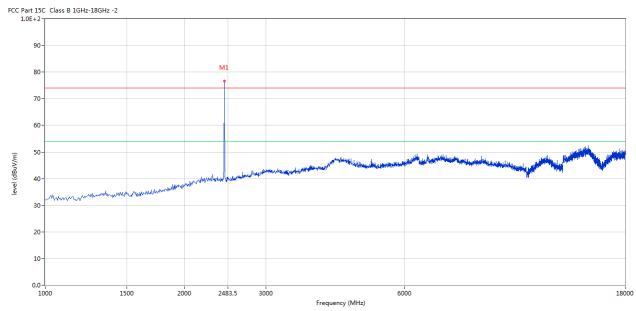
Report No.: TW2305239-01E Page 17 of 42

Date: 2023-07-06



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

Horizontal



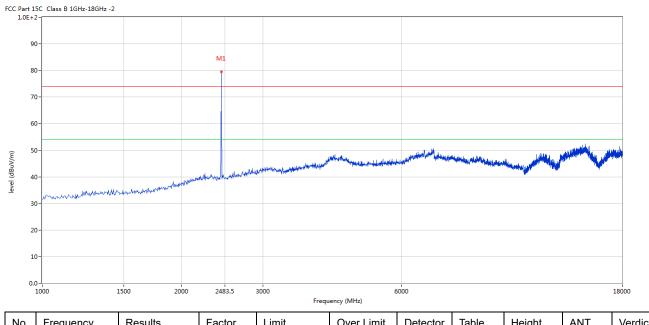
Ī	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
	1	2441	76.67	-3.57	114.0	-37.33	Peak	135.00	100	Horizontal	Pass

Report No.: TW2305239-01E Page 18 of 42

Date: 2023-07-06



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(0)	(cm)		
1	2441	79.56	-3.57	114.0	-34.44	Peak	163.00	100	Vertical	Pass

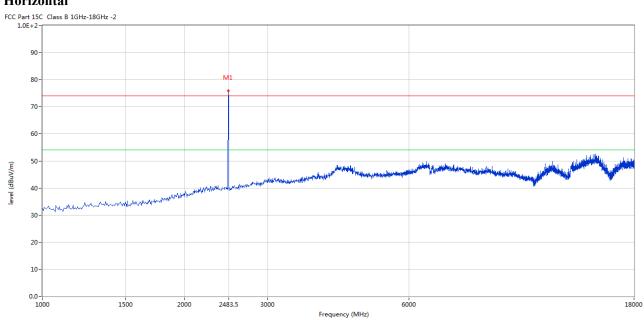
Report No.: TW2305239-01E Page 19 of 42

Date: 2023-07-06



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

Horizontal



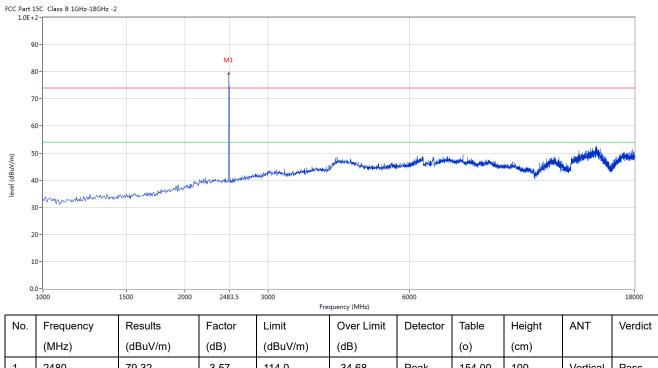
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	75.95	-3.57	114.0	-38.05	Peak	176.00	100	Horizontal	Pass

Report No.: TW2305239-01E Page 20 of 42

Date: 2023-07-06



Vertical



154.00 Pass 2480 79.32 -3.57 114.0 -34.68 Peak 100 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.

Report No.: TW2305239-01E Page 21 of 42

Date: 2023-07-06

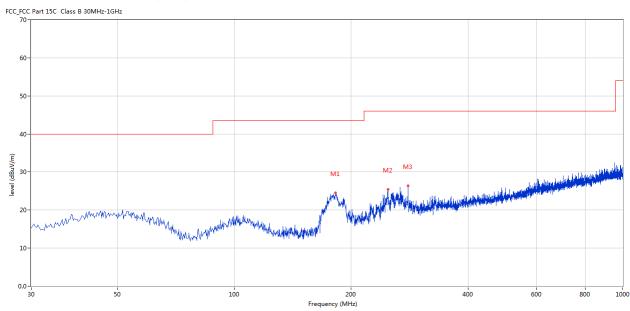


B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	182.252	24.51	-15.00	43.5	-18.99	Peak	331.00	100	Horizontal	Pass
2	248.923	25.46	-12.20	46.0	-20.54	Peak	280.00	100	Horizontal	Pass
3	279.955	26.38	-11.50	46.0	-19.62	Peak	285.00	100	Horizontal	Pass

Report No.: TW2305239-01E Page 22 of 42

Date: 2023-07-06

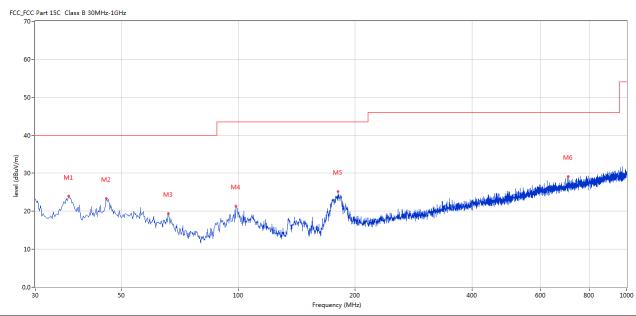


Radiated Emission In Vertical (30MHz----1000MHz)

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)		(o)	(cm)		
1	36.546	23.93	-13.45	40.0	-16.07	Peak	351.00	100	Vertical	Pass
2	45.759	23.32	-11.40	40.0	-16.68	Peak	256.00	100	Vertical	Pass
3	66.123	19.43	-13.97	40.0	-20.57	Peak	229.00	100	Vertical	Pass
4	98.610	21.39	-13.70	43.5	-22.11	Peak	314.00	100	Vertical	Pass
5	180.312	25.21	-15.27	43.5	-18.29	Peak	305.00	100	Vertical	Pass
6	706.406	29.12	-4.06	46.0	-16.88	Peak	359.00	100	Vertical	Pass

Date: 2023-07-06

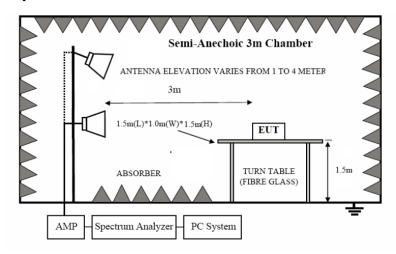


7. Band Edge

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.

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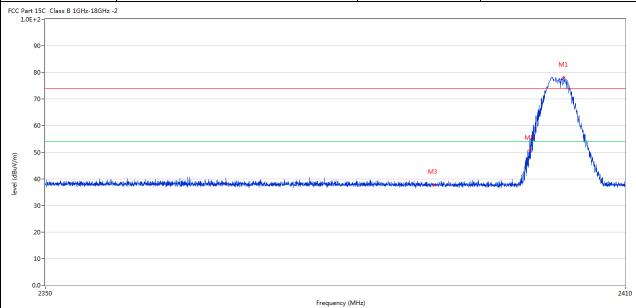
Report No.: TW2305239-01E Page 24 of 42

Date: 2023-07-06



7.6 Test Result

Product:	WIRELESS 100 KEYS HOT-SWAPPABLE MECHANICAL KEYBOARD	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



١	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	1	2403.582	78.14	-3.57	74.0	4.14	Peak	159.00	100	Horizontal	N/A
2	2	2400.000	51.18	-3.57	74.0	-22.82	Peak	204.43	100	Horizontal	Pass
3	3	2390.000	37.66	-3.53	74.0	-36.34	Peak	249.67	100	Horizontal	Pass

Report No.: TW2305239-01E Page 25 of 42



P	Product:		RELESS 10 PPABLE 1 KEYBO <i>A</i>	MECHANICA	L I	Detector		V	^v ertical	
	Mode	Kee	eping Tran	smitting	Tes	st Voltage		D	C3.7V	
Ter	mperature		24 deg.	C,	Н	Iumidity		50	6% RH	
Te	st Result:		Pass							
90 80 70 60 50 40 30 20		gaing leas with the deal gap and an deal seal gap.	ndelski fil de venjak de dest fil	decid management of a symbol great side management and the		M3 Alkarusy sanjanghi heffanda	ન્યાદ્રિકાર દાવાનુ કે તે છે. ડિ.સ્. તુરી ના ના કે ત્	1	M1	2410
NI-	F	Desults	Fastan	1	uency (MHz)	Datastan	Table	Haiabt	ANIT	\/a.malia
No.	Frequency	Results	Factor		Over Limit	Detector	Table	Height	ANT	Verdid
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)	Deale	(0)	(cm)	Monting	NI/A
a	2402.442	79.52	-3.57 -3.57	-	5.52 -23.21	Peak Peak	173.00 148.29	100	Vertical Vertical	N/A
1 2	2400.000	50.79								Pass

Report No.: TW2305239-01E Page 26 of 42



		W	TRELESS	100 KEYS						
F	Product:	HOT-SW	/APPABL	E MECHAN	ICAL	Pola	rity		Horizonta	ıl
			KEYB	OARD						
	Mode	k	Keeping Tr	ansmitting		Test V	oltage		DC3.7V	
Teı	mperature		24 de	eg. C,		Hum	idity		56% RH	
Te	st Result:		Pa	SS		-	-			
Part 15	5C Class B 1GHz-18GHz -	2								
1.02.12										
90	0-									
80	0-		M1							
				Maria Park						
70	0-									
70				The state of the s						
70 60										
60	0-			M2						
60)- -			100				tel due II ee		
60 50 40	D	فمن المعاددة والعاددة والعاددة والمعاددة والعاددة والعاددة والمعاددة والعاددة والعاد		1/2	Market and the second s	holywoogikullipsy-fikhilijyotholel	the paper has been all a such	ale qualitative de the spirit agency and agency	ર્માન્ય ભાગમાં અને સ્થિત કર્યા છે. તેને ત્યારે માને ત્યારે માને ત્યારે માને ત્યારે માને ત્યારે માને ત્યારે માને	de koolee plane de de
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60 50 40 30 20		مراه والدائدة العامل والدائدة العامل والدائدة العامل والدائدة العامل والدائدة العامل والدائدة والعامل		M2	Market and the Letter down the	holyweek alfron folder bestered	egy-ageleinyddio Houllio vaelly	ile qiriba addin phase ada ala ana ang	gentining still project deligned for the standard of the stand	de Audiotéria de de
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500 500 500 500 500 500 500 500 500 500		Results	Factor		5	Detector	Table	Height	ANT	2500
600 500 400 300 200 100 0.0.0	D		Factor (dB)		; Frequency (MHz)					2500
60 50 40 30 20	Frequency	Results		Limit	Frequency (MHz)		Table	Height		

Page 27 of 42

Report No.: TW2305239-01E



		WI	RELESS 1	00 KEYS							
	Product:	HOT-SWA	APPABLE	MECHANICA	L L	Detector			Vertical		
			KEYBO	ARD							
	Mode	Ke	eping Trai	nsmitting	Tes	st Voltage		D	C3.7V		
Te	emperature		24 deg.	С,	Н	lumidity		56	% RH		
Te	est Result:		Pass	1							
CC Part 1.0E+	15C Class B 1GHz-18GHz	-2									
,	90-										
,	90-		M1								
8	30-		فيلوينيه	rin.							
7	70-			7							
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	30-										
:	20-										
1	10-										
0	.0- 2470			2483.5						2500	
				1	ency (MHz)	1	T			ı	
No.	Frequency	Results	Factor		Over Limit	Detector	Table	Height	ANT	Verdid	
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)			
	0.470.005	79.02	-3.57	74.0	5.02	Peak	173.00	100	Vertical	N/A	
1	2479.365						175.86				

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

Date: 2023-07-06



Page 28 of 42

8.0 Antenna Requirement

Applicable Standard

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

This product has a PCB antenna. The antenna gain is 2.34dBi Max. It fulfills the requirement of this section. Test Result: Pass

Page 29 of 42

Report No.: TW2305239-01E



	WIRELESS 100 KEYS										
Product:	HOT-SWAPPABLE MECHANICAL KEYBOARD					Test Mode:			Keep tran	smitting	
Mode		Keepii	ng Transm	itting		Te	st Voltage		DC3.	7V	
Temperature		2	24 deg. C,			Н	Iumidity		56%	RH	
Test Result:			Pass			I	Detector		PK		
0dB Bandwidth		2	2.525MHz								
	M	arker	1 [T1 r	ndB]	RI	BW	100 k	Hz RI	7 Att	20 dB	
Ref Lvl	ndB 20.00 dB V					BW	300 k	:Hz			
10 dBm	В	W 2	.525050	010 MHz	SI	ΥT	5 m	s Ur	nit	dBm	ı
10							\mathbf{v}_1	[T1]	-5	.77 dBm	A
									2.40240	381 GHz	
0			1				ndI		20	.00 dB	
			$\overline{\wedge}$	Λ	η		BW	[m 1]	2.52505		
-10			- / \	V		المماء	Mu M	[T1]	2.40165	.64 dBm 230 GHz	
			NN		· · ·	N.W	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	[T1]	-25		
-20		T1/	<u>, N</u>					W	2.40417	735 GHz	
1MAX	~~	Jan Marie						۲			1M
-30	V							-\ -			
-40								- Tu	المرساه ويرمه	\	
MM									·	huh	
-50											
-60											
-70											
80											
-80											
-90 Center 2.	100 ===				kHz/				_	n 5 MHz	

Page 30 of 42

Report No.: TW2305239-01E



Product:	WII HOT-SWA	L	Test Mode	::	Keep transmitting				
Mode	Ke	eping Transmi	tting		Test Voltag	ge	DC	C3.7V	
Temperature		24 deg. C,			Humidity		569	% RH	
Test Result:		Pass			Detector]	PK	
20dB Bandwidth		2.415MHz							
Ref Lvl 10 dBm	Mark ndB BW	er 1 [T1 n 20. 2.414829	00 dB	RE VE SW	300 E	kHz	F Att	20 dB	
0					▼ ₁		2.44040	3.78 dBm	А
-10		1		\	BW V _I	r	-26	2966 MHz	
-20			V			2 [T1]	2.44217	253 GHz 3.86 dBm 7735 GHz	
-30	T: کسمسرمره	المس				T2			1MA
-40 Magaalam	-ladound					M.c.	Mal _w har		
-50								Yw	
-60									
-70									
-80									
-90 Center 2		17:35:40	500	kHz/			Spa	an 5 MHz	

Page 31 of 42

Report No.: TW2305239-01E



Product:	WIRELESS 100 KEYS HOT-SWAPPABLE MECHANICAL KEYBOARD					T	est Mode:		Keep tra	nsmitting	
Mode		Keepin	g Transmi	tting		Te	est Voltage		DC	3.7V	
Temperature			4 deg. C,]	Humidity		56%	6 RH	
Test Result:			Pass				Detector		F	PΚ	
20dB Bandwidth		2.	234MHz						,		
Ref Lvl 10 dBm		ndB	1 [T1 r 20.	00 dB	V	BW BW WT	100 ki 300 ki 5 ms	Hz	F Att	20 dB	ı
0							V 1	[T1]	-6 2.47942	.99 dBm 385 GHz .00 dB	A
-10			1	- Am	η		BW ▼ _{T1}	[T1]	2.23446	894 MHz	
-20				V	_\	wh		[T1]	2.47891 -26 2.48114	283 GHz .74 dBm 729 GHz	
1MAX		TA					4	T ²			1MA
-40	<u>M. M</u> u	, //////						*\ <u>\</u>	A L	1	
-50 market	₩							WIM	Mr Millian	Yum	
-60											
-70											
-80											
-90 Center 2.48 GHz Date: 1.JUL.2023 17:40:02				500	kHz/				Spa	n 5 MHz	

Report No.: TW2305239-01E Page 32 of 42

Date: 2023-07-06



10.0 FCC ID Label

FCC ID: TUVET-8857A

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 33 of 42

Report No.: TW2305239-01E

Date: 2023-07-06



11.0 Photo of testing

11.1 Conducted test View--



Page 34 of 42

Report No.: TW2305239-01E

Date: 2023-07-06



Radiated emission test view



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Page 35 of 42

Report No.: TW2305239-01E

Date: 2023-07-06

11.2



Outside View- keyboard





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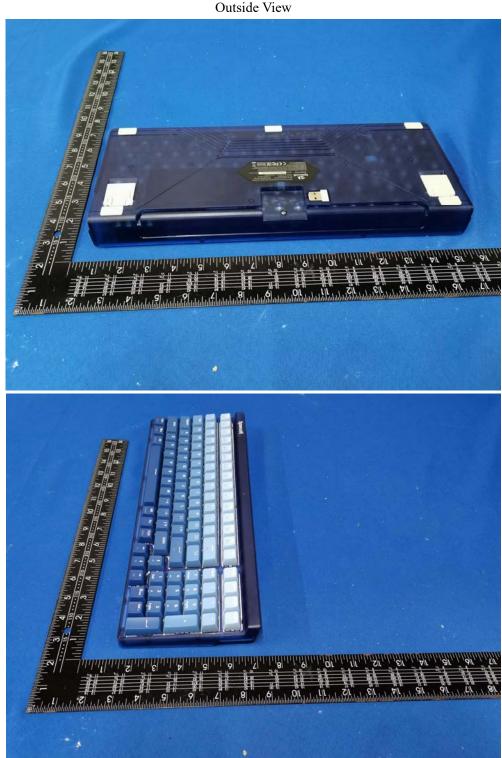
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Page 36 of 42

Report No.: TW2305239-01E

Date: 2023-07-06





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Page 37 of 42

Report No.: TW2305239-01E

Date: 2023-07-06



Outside View



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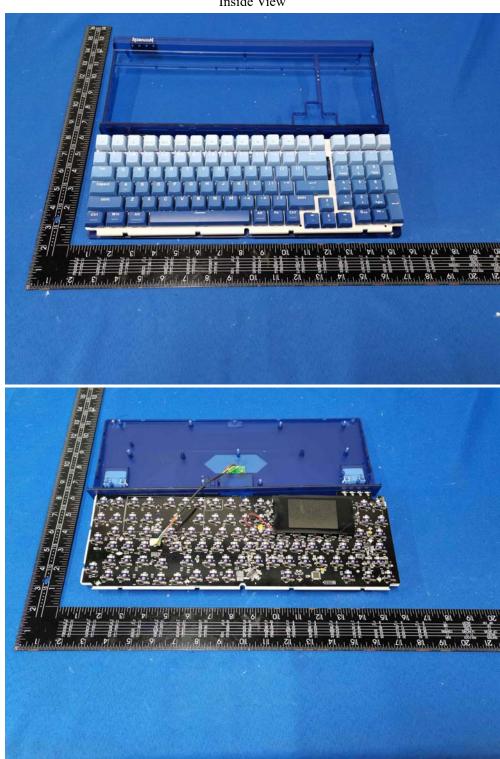
Page 38 of 42

Report No.: TW2305239-01E

Date: 2023-07-06



Inside View



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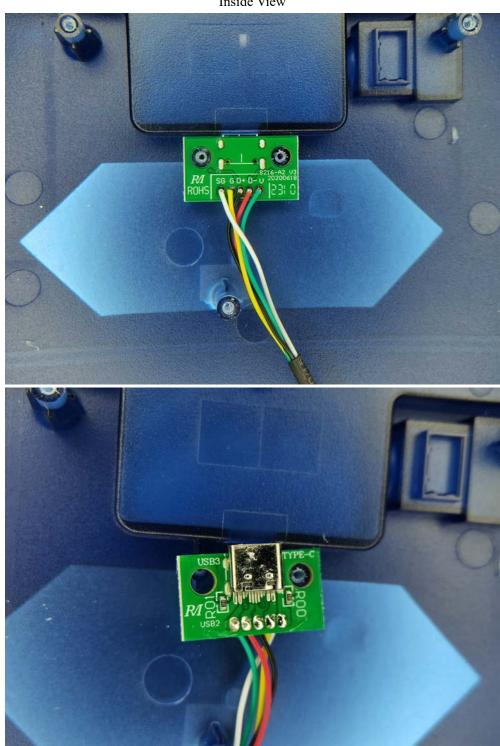
Page 39 of 42

Report No.: TW2305239-01E

Date: 2023-07-06



Inside View



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Page 40 of 42

Report No.: TW2305239-01E

Date: 2023-07-06



Inside View



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Page 41 of 42

Report No.: TW2305239-01E

Date: 2023-07-06





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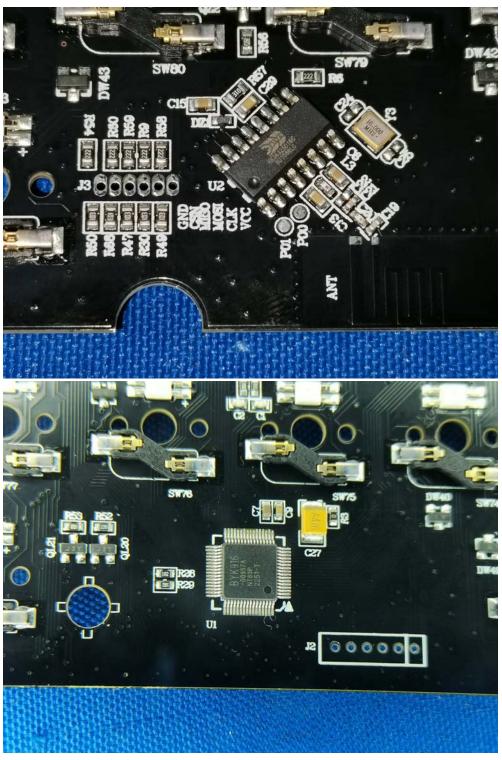
Page 42 of 42

Report No.: TW2305239-01E

Date: 2023-07-06



Inside View



-- End of the Report--

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

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