

Report No.: TW2210144E

Applicant: Shenzhen SQT Electronics Co.,Ltd

Product: Wireless Keyboard

Model No.: SMK-680386AG, SMK-680M4AG, NOMI, SMK-680618AG,

SK-680AG, JPX003, JPX003W, JPX003WL, JPX003WLL

Trademark: N/A

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: November 15, 2022

Results appearing herein relate only to the sample tested

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

## SHENZHEN TIMEWAY TESTING LABORATORIES

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

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

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## **Special Statement:**

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

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

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

### **CNAS-LAB Code: L2292**

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2017 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

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## Test Report Conclusion Content

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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: Shenzhen SQT Electronics Co.,Ltd

Address: ZhengChengFeng TechnologyZone Xinsha Road,ShaYi Village, Sha jing Town, Baoan Area,

Shenzhen, China

Telephone: 0755-27568078 Fax: 0755-27568223

## 1.3 Description of EUT

Product: Wireless Keyboard

Manufacturer: Shenzhen SQT Electronics Co.,Ltd

Address: ZhengChengFeng TechnologyZone Xinsha Road,ShaYi Village, Sha jing

Town, Baoan Area, Shenzhen, China

Trademark: N/A

Model Number: SMK-680386AG

Additional Model Name SMK-680M4AG, NOMI, SMK-680618AG, SK-680AG, JPX003, JPX003W,

JPX003WL, JPX003WLL

Rating: DC3.0V (2pc AAA batteries)

Modulation Type: GFSK

Operation Frequency: 2408-2474MHz

Channel Number: 34 Channel Separation: 2MHz

Hardware Version: MA138W5-3

Software Version: MA138W5-3\_K+M\_V01test3\_5.HEX CS:06DA

Serial No.: 875-680386A23780

Antenna Designation PCB antenna with gain -0.61dBi Max (Get from the antenna specification)

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1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2022-10-17 to 2022-11-15

1.6 Test Uncertainty

Conducted Emissions Uncertainty = 3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty =6.0dB

Occupied Channel Bandwidth Uncertainty = 5%

Conducted Emissions Uncertainty = 3.6dB

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

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

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2.0 Test Equipment									
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date				
ESPI Test Receiver R&S		ESPI 3	100379	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	1	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				

## 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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#### 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	N/A	N/A
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Fundamental	Pass	Complies
FCC Part 15, Paragraph 15.209 and RSS-210	Radiated Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	Pass	Complies

#### 3.2 Test Standards

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

#### 4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

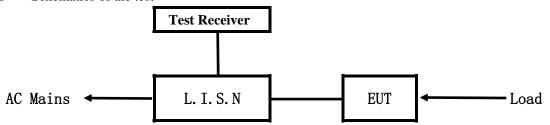
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### 5. Power Line Conducted Emission Test

### 5.1 Schematics of the test

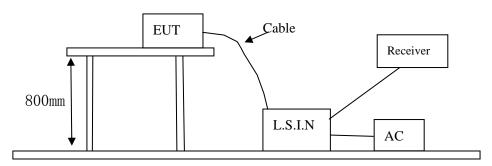


**EUT: Equipment Under Test** 

## 5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. 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.

34 channels are provided to the EUT

## A. EUT

Device	Manufacturer	FCC ID		
		SMK-680386AG, SMK-680M4AG,		
Wireless Keyboard	Shenzhen SQT	NOMI, SMK-680618AG,	WOX-SK-680AG	
	Electronics Co.,Ltd	SK-680AG, JPX003, JPX003W,	WOA-SK-000AU	
		JPX003WL, JPX003WLL		

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#### B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

## C. Peripherals

Device	Manufacturer	Model	Rating
N/A			

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*		
$0.50 \sim 5.0$	56.0	46.0		
5.00 ~ 30.00	60.0	50.0		

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

#### 5.6 Test Results:

N/A

Note: EUT powered by AAA battery, this test item not applicable.

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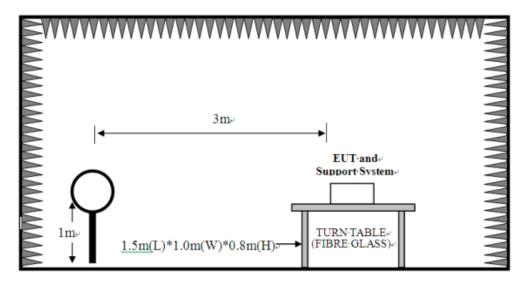


#### **6** Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz (Note: for Fundamental frequency radiated emission measurement, RBW=3MHz, VBW=10MHz). Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) The antenna polarization: Vertical polarization and Horizontal polarization.

## **Block diagram of Test setup**

For radiated emissions from 9kHz to 30MHz

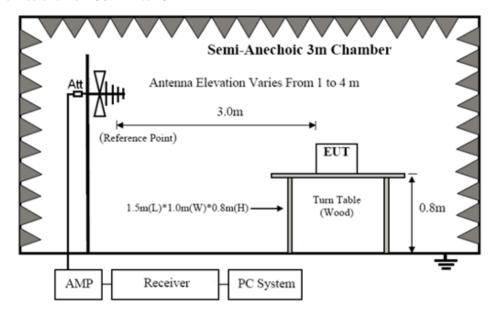


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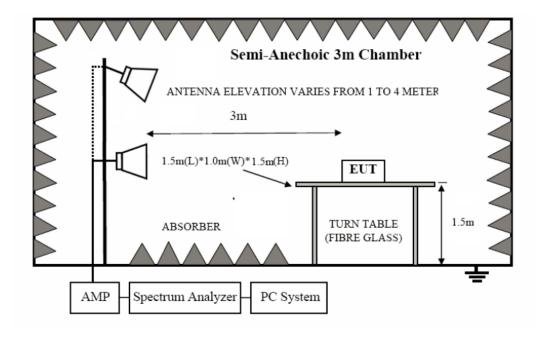
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



# 6.2 Configuration of The EUT Same as section 5.3 of this report

## 6.3 EUT Operating Condition

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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:

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

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

Note:

- 1. RF Field Strength  $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 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 $\mu$ 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	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. New Battery was used during tests.

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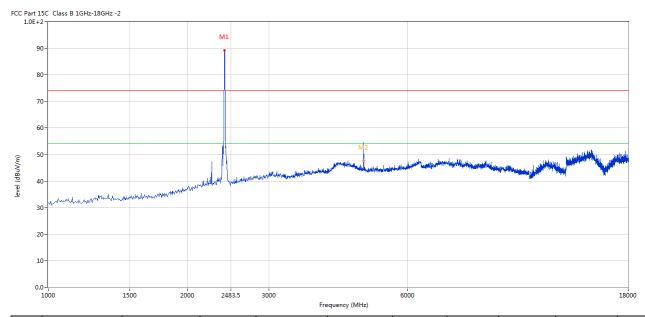


## 6.5 Test result

## A Fundamental & Harmonics Radiated Emission Data

Please refer to the following test plots for details: Low Channel-2408MHz

#### Horizontal



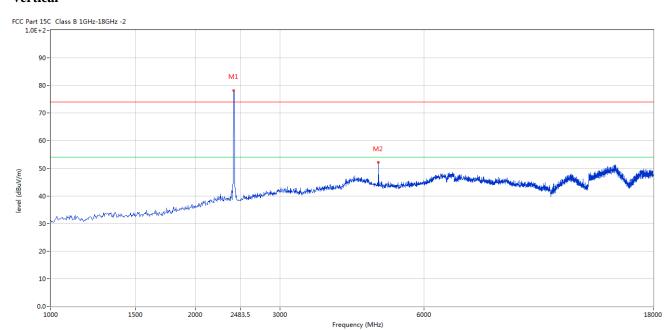
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2408	89.57	-3.57	114.0	-24.43	Peak	269.00	100	Horizontal	Pass
2	4815.546	54.69	3.14	74.0	-19.31	Peak	264.00	100	Horizontal	Pass
2**	4815.546	47.58	3.14	54.0	-6.42	AV	264.00	100	Horizontal	Pass

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## Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2408	77.59	-3.57	114.0	-36.41	Peak	291.00	100	Vertical	Pass
2	4815.546	52.14	3.14	74.0	-21.86	Peak	103.00	100	Vertical	Pass

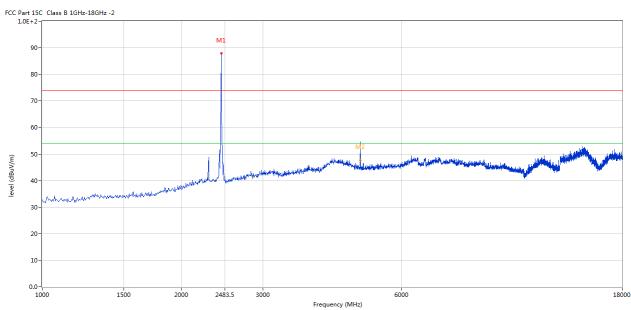
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Please refer to the following test plots for details: Middle Channel-2440MHz

#### **Horizontal**



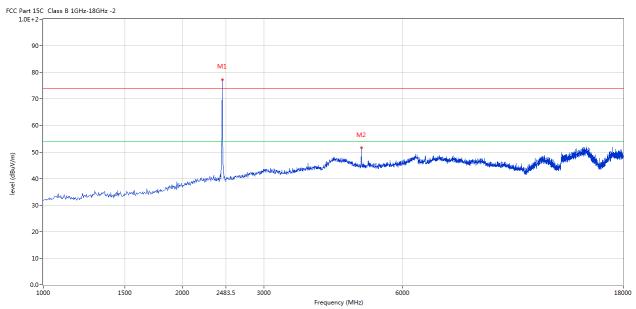
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2440	87.89	-3.57	114.0	-26.11	Peak	259.00	100	Horizontal	Pass
2	4879.280	54.67	3.20	74.0	-19.33	Peak	247.00	100	Horizontal	Pass
2**	4879.280	47.58	3.20	54.0	-6.42	AV	247.00	100	Horizontal	Pass

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## Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2440	77.25	-3.57	114.0	-36.75	Peak	275.00	100	Vertical	Pass
2	4879.280	51.54	3.20	74.0	-22.46	Peak	107.00	100	Vertical	Pass

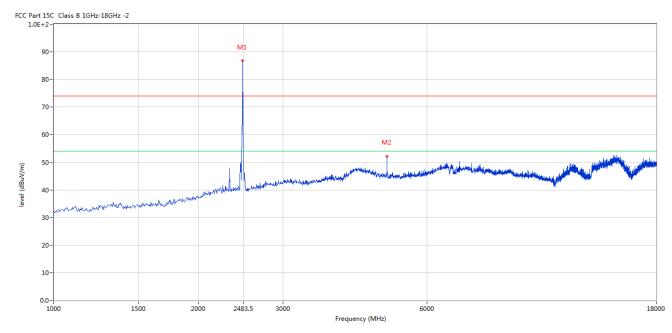
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Please refer to the following test plots for details: High Channel-2474MHz

#### Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2474	87.12	-3.57	114.0	-26.88	Peak	266.00	100	Horizontal	Pass
2	4947.263	52.22	3.33	74.0	-21.78	Peak	266.00	100	Horizontal	Pass

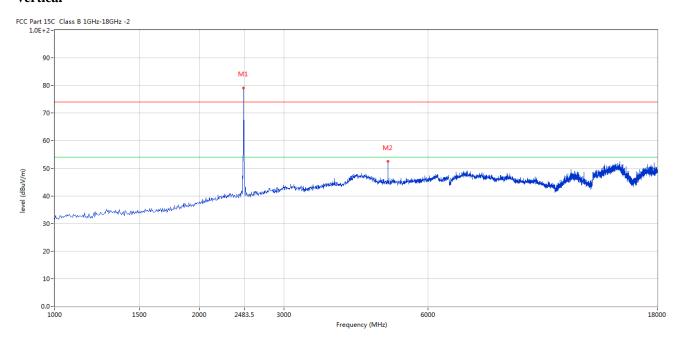
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#### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2474	79.23	-3.57	114.0	-34.77	Peak	268.00	100	Vertical	Pass
2	4947.263	52.45	3.33	74.0	-21.55	Peak	106.00	100	Vertical	Pass

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

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

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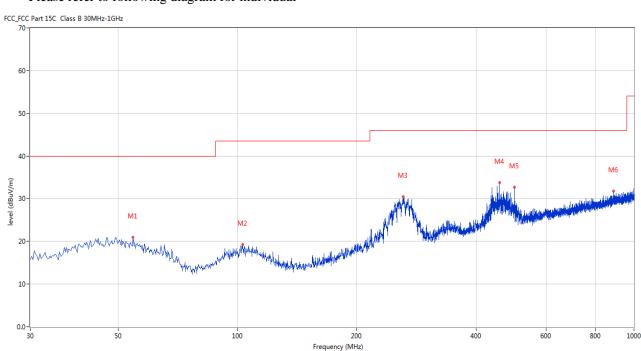


# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	54.486	20.98	-11.66	40.0	-19.02	Peak	360.00	200	Horizontal	Pass
2	102.974	19.21	-13.38	43.5	-24.29	Peak	253.00	100	Horizontal	Pass
3	261.772	30.46	-11.89	46.0	-15.54	Peak	275.00	100	Horizontal	Pass
4	458.390	33.77	-7.78	46.0	-12.23	Peak	84.00	200	Horizontal	Pass
5	499.848	32.65	-6.90	46.0	-13.35	Peak	360.00	200	Horizontal	Pass
6	887.023	31.74	-2.08	46.0	-14.26	Peak	360.00	200	Horizontal	Pass

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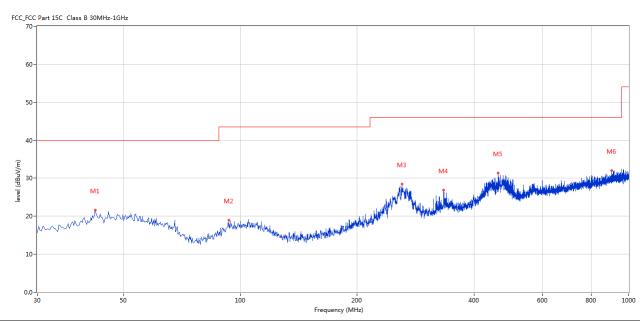


## Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	42.364	21.62	-11.59	40.0	-18.38	Peak	97.00	100	Vertical	Pass
2	93.519	18.93	-14.41	43.5	-24.57	Peak	360.00	200	Vertical	Pass
3	260.802	28.54	-11.84	46.0	-17.46	Peak	360.00	200	Vertical	Pass
4	333.534	26.89	-10.06	46.0	-19.11	Peak	360.00	200	Vertical	Pass
5	461.300	31.37	-7.84	46.0	-14.63	Peak	145.00	100	Vertical	Pass
6	905.206	32.10	-1.82	46.0	-13.90	Peak	360.00	200	Vertical	Pass

Date: 2022-11-15

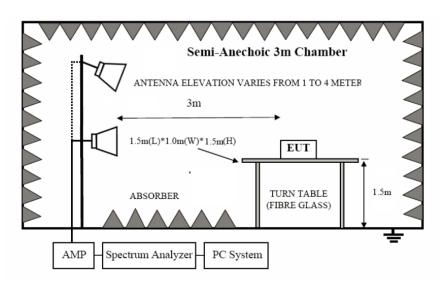


### 7. Band Edge

#### 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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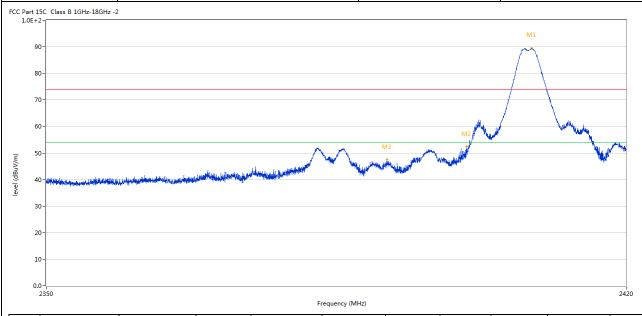
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### 7.6 Test Result

Product:	Wireless Keyboard	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC3.0V
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	2408.470	89.48	-3.57	74.0	15.48	Peak	270.00	100	Horizontal	N/A
2	2400.510	52.33	-3.57	74.0	-21.67	Peak	193.00	100	Horizontal	Pass
3	2390.887	47.37	-3.53	74.0	-26.63	Peak	188.00	100	Horizontal	Pass

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]	Product:	V	Wireless K	eyboard		Detecto	or	7	/ertical	
	Mode	K	eeping Tra	nsmitting		Test Volt	age	D	C3.0V	
Te	mperature		24 deg. C,			Humidity		50	56% RH	
Te	est Result:		Pass	S						
C Part 1	L5C Class B 1GHz-18GHz -	-2								
9	0-									
								M1		
8	0-							Many		
7	0-							$f \setminus f$		
6	0-									
								3 \		
	0-						ulte.	/	Lection Alan	
					M3		M2 <sup>M</sup>		wall harden	p. Marie Marie
_		lakistan liter/esilpene jilisi hide esirelenista da magadek	oodbeelde ingloeid de gebreier	alance the state of	M3		M2 <sup>pM</sup>		wyth wyth	je <sup>niji</sup> nski
5		ildas financias (s. departe financias (s. departe financias (s. departe financias (s. departe financias (s. de		the state of the s	МЗ		M2philipped		works when	je <sup>st, 178</sup> kodi,
5 4 4 3 3 s	O-	t de i fleve descritif en en fê in dêr en prês en specie en gene de en part en	and from the desired the forest and	arka sizila qilibba qiracili bi s <sup>haba</sup> di	M3		M3phillippide Lind		with with	j <sub>e</sub> nstra <sub>nosk</sub>
3		lahistan kinista (keneri kinishi sa perintikan kenerikan kinishi sa perintikan kinishi sa kenerikan kinishi sa	برودون والمراجعة والمراجع والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة	ede vizida filologica de la fi <sup>rela</sup> d	M3		My My J			January Control
3 2 1	O-	ર્તમાં ફેલ્માનો પ્રાપ્ત કર્યા હોય ત્યાર કે માનો કે આ કર્યા હતા કરવાનો પ્રાપ્ત હોય પ્રાપ્ત હોય પ્રાપ્ત હોય પ્રા	madi nada inganisi di dinamena	and a second distribution of the second distribu	M3		My Market		who have	de Maria de California de Cali
5 5 4 4 3 3 1 2 1 1 0	O-	d Anis Para Navari (18 mais 19 in mais na para tras puncha negara de	madifi sada ki garafi di dimensi m		Marie Constitution of the		w / Luk			2420
3 2 1 0.	0- 0- 0- 0- 0- 2350			Free	quency (MHz)	Datasta	Toble	Hainh	LANT	ı
5 5 4 4 3 3 1 2 1 1 0	0	Results	Factor	Free	quency (MHz)  Over Limit	Detector	Table	Height	ANT	ı
3 3 2 1. No.	o- 0- 0- 0- 0- 2350 Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	quency (MHz)  Over Limit (dB)		(o)	(cm)		Verd
3 3 2 1 1 0.	0- 0- 0- 0- 0- 0- 0- 0- 0- 0- 0- 0- 0- 0	Results (dBuV/m) 78.05	Factor (dB) -3.57	Limit (dBuV/m) 74.0	over Limit (dB) 4.05	Peak	(o) 266.00	(cm) 100	Vertical	Verd
3 3 2 1. No.	o- 0- 0- 0- 0- 2350 Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	quency (MHz)  Over Limit (dB)		(o)	(cm)		Verd

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]	Product:		Wirele	ess Keyboard	[		Polarit	y	Horizon	tal
	Mode		Keeping	g Transmittir	ıg	,	Test Volta	age	DC3.0	V
Те	mperature		24	4 deg. C,			Humidi	ty	56% R	Н
Те	est Result:			Pass						
1.0E+ 9	15C Class B 1GHz-18GHz	-2		M1						
(w/nngp) Javasi 3 2 2 1 0.	0-2460	world with the state of the sta				83.5		the designation of the second	Water and the second se	2500
(w/nngp) Javasi 3 2 2 1 0.	00-	Results	Factor	Limit	24		Table	Height	ANT	2500 Verdic
(m//nngn) awai 3 2 1 0.	0-2460	Results (dBuV/m)	Factor (dB)	ı	Frequency (MHz)	83.5			ANT	1
(m//nngn) awai 3 2 1 0.	00- 00- 00- 00- 00- 00- 00- 00- 00- 00-			Limit	24 Frequency (MHz)  Over Limit	83.5	Table	Height	ANT Horizontal	1

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

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]	Product:		Wirel	less Keyboard	l		Detecto	r	Vertica	al	
	Mode		Keepir	ng Transmittii	ng	r	Test Volta	age	DC3.0	V	
Te	mperature		2	24 deg. C,			Humidi	ty	56% R	Н	
Te	est Result:			Pass							
C Part 1 1.0E+	L5C Class B 1GHz-18GHz 2-r	-2		•		•					
1,021											
9	0-										
8	0-		~	M1							
7	0-										
6	0-										
	0-		II. gldbir	A STATE OF THE STA	M2						
	0-	The state of the s	HARAFA TO THE	- Lucius	The of Male 2	portion and the side of the si			A STATE OF THE STA		
		and the state of t	Hadring .		The of Male 2	land the state of	No.	de la constitución de la constit	papara di manda di kalipa di mana	a de de la constante de la con	
5	0-	and the state of t	Shape of the state	The state of the s	The of Male 2	popular and the second	and the same of th	المراجع والمراجع والم	market which the short is now a	and habite	
4	0-	and the state of t	HARRIEN .	· · · · · · · · · · · · · · · · · · ·	The of Male 2	per protection of the state of	an industrial and the second	ومراء ومرازي والمراد والمواد و	market de de de la como de la com	up de defin	
3	0-	and the state of t	HARRIE TO THE TOTAL THE TOTAL TO THE TOTAL TOTAL TO THE T	The state of the s	The of Male 2	garante de la constitución de la	<sup>NOO</sup> LA MARIA MARI	राजे द नकांत्रकारीयां सीववांत्रेस्तावेती	چ <sup>ېدرو</sup> د د د د د د د د د د د د د د د د د د د	in the shape	
4	0-	necessia di	HARRIEN .		The of Male 2		and the second second	त्वतीक्षणकां कृष्टिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स्थापनिक स	المستعمل الم	in the best	
5 4 3 2	0-	magazin kalika kali	HAMPIN TO THE		M2 2483.	5	ani na daga na	राजे द नकांकुरायां में संदर्शकांकिता	p <sup>olokia</sup> nokulkiapidisuud	2500	
3 3 2 2 1 0.	0-	new contribution of the second second	Hapter 1	Fre	M2 2483. quency (MHz)	1				1	
5 4 3 2 1	0	Results	Factor	Fre	M2 2483.	5 Detector	Table	Height	ANT	1	
3 3 2 2 0.	0-	Results (dBuV/m)	Factor (dB)	Fre	M2 2483. quency (MHz)	1				1	
5 4 3 2	0			Fre	2483. quency (MHz)	1	Table	Height		2500 Verdi	

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

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## 8.0 Antenna Requirement

## **Applicable Standard**

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

This product has a PCB antenna. The antenna gain is -0.61dBi i Max. It fulfills the requirement of this section. Test Result: Pass

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Product:	Wire	eless Keyb	oard		T	est Mode:		Keep tran	nsmitting	
Mode	Keepi	ing Transm	itting		Te	est Voltage		DC3	5.0V	
Temperature		24 deg. C,			]	Humidity		56%	RH	
Test Result:		Pass				Detector		Pl	K	
dB Bandwidth		2.285MHz							-	
<u> </u>	Marker	1 [T1 r	ndB]	R	BW	100 ki	Hz Ri	F Att	20 dB	
Ref Lvl	ndB	20.	00 dB	V	BW	300 k	Hz			
10 dBm	BW	2.284569	914 MHz	S	WT	5 m	s U	nit	dBm	n
10						<b>v</b> <sub>1</sub>	[T1]	- 6	.77 dBm	
								2.40857	615 GHz	
0						ndB		20	0.00 dB	
1.0			$ \uparrow $		/	$\overset{\perp}{lack}$ BW $lack}{lack}$	[T1]	2.28456	914 MHz	
-10		N			. /			2.40690		
		/	Lar		W	$\nabla_{\mathrm{T2}}$	[T1]	-25	.11 dBm	1
1MAX	ŢŹ	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					T2	2.40918	737 GHz	11
-30	4							للسر	<b>\</b> .	•
-40 -50	W.W.						\	MARKET	Wang to the same of the same o	4
-60										
70										
-80										-
-90										
Center 2.40	8 GHz		500	kHz/				Spa	n 5 MHz	í

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Report No.: TW2210144E



Product:	Wirel	ess Keyboard	Test Mode	e: Keep t	Keep transmitting				
Mode	Keeping Transmitting		Test Voltag		DC3.0V				
Temperature	24 deg. C,		Humidity	56	56% RH				
Test Result:	Pass		Detector		PK				
20dB Bandwidth	2.305MHz								
Ref Lvl		Marker 1 [T1 ndB] ndB 20.00 dB		kHz RF Att kHz	20 dB				
10 dBm		2.30460922 MHz	VBW 300 SWT 5		dBm				
10			<b>▼</b> 1	[T1] -	-6.51 dBm				
				2.4405	A				
0			no 1		0.00 dB				
			BW ▼ <sub>T</sub>		0922 MHz 26.44 dBm				
-10				2.4388					
			$\bigvee_{\sim}$	T2 [T1] -2	26.52 dBm				
-20 1MAX	Ţ		7	2.4411 F2	9739 GHz 1MA				
-30	/_								
-40				VAL.					
-50									
-60									
-70									
-80									
-90									
Center 2.44 GHz 500 kHz/ Span 5 MHz									
Date: 31.OCT.2022 13:45:07									

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Product:	Wireless Keyboard		Test	Mode:	Keep transmitting			
Mode	Keeping Transmitting		Test	Voltage	DC3.0V			
Temperature	24 deg. C,		Hu	midity	56% RH			
Test Result:	Pass		De	tector	PK			
20dB Bandwidth	2.315MHz							
	Marker 1 [T1 ndB] RBW 100 kHz RF Att 20 dB							
Ref Lvl	ndB	20.00 dB	VBW	300 kHz				
10 dBm	BW 2.31462926 MHz SWT 5 ms Unit dBm							
				<b>▼</b> 1 [1	-5	.75 dBm		
0					2.47452	605 GHz		
			1	ndB	20	.00 dB		
				BW ▼ <sub>T1 [</sub>	2.31462 T11 -25	926 MHz		
-10			\		2.47289			
			<b>V</b>	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	T1] -25	.60 dBm		
-20	T			**************************************	2.47520 F2	741 GHz		
	7				<b>V</b>	THA		
-30								
-40	VV-V							
-50								
-60								
-70								
-80								
-90								
Center 2.474 GHz 500 kHz/ Span 5 MHz								
Date: 31.OCT.2022 13:55:26								

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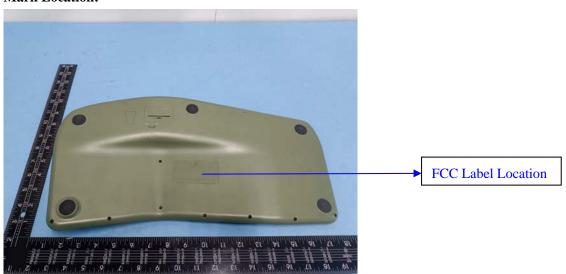
### 10.0 FCC ID Label

#### FCC ID: WOX-SK-680AG

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:**



Report No.: TW2210144E

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11.0 Photo of testing

11.1 Conducted test View-- N/A

Radiated emission test view



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#### 11.2 Photographs – EUT

## Outside View-Keyboard



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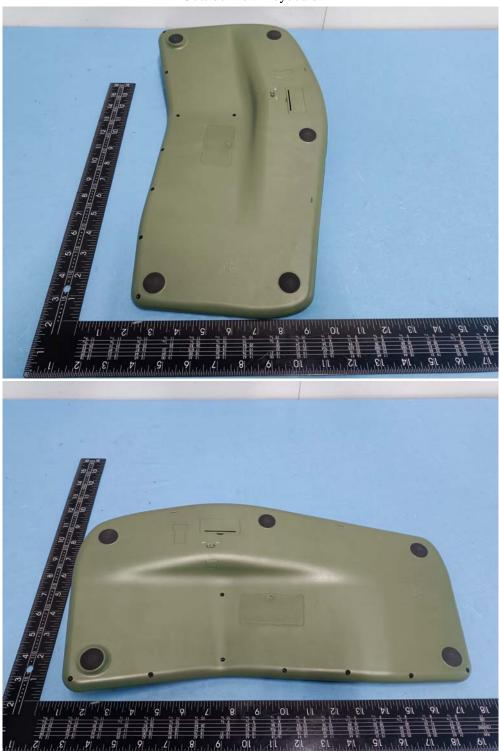
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Outside View-Keyboard



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Outside View-Keyboard



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Inside View-Keyboard





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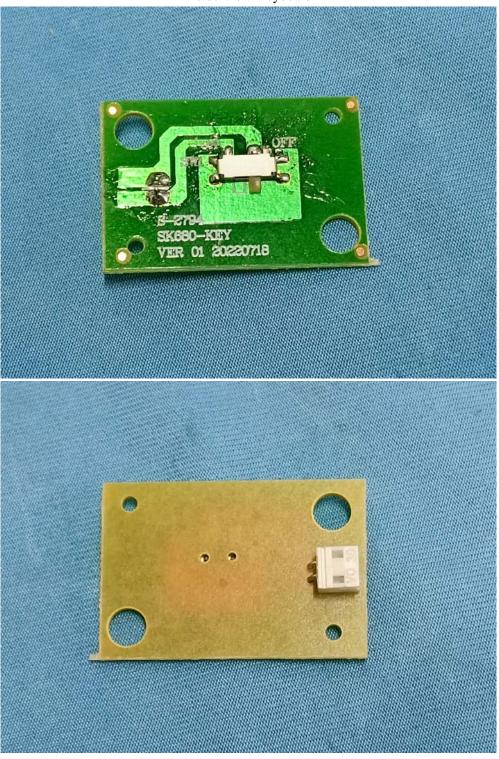
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Inside View-Keyboard



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discussion of correspondence with any third party concerning the contents of the report.

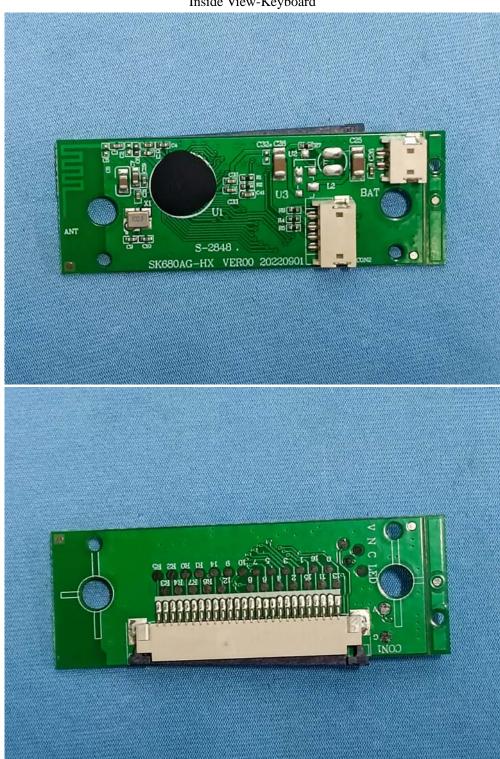
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Inside View-Keyboard



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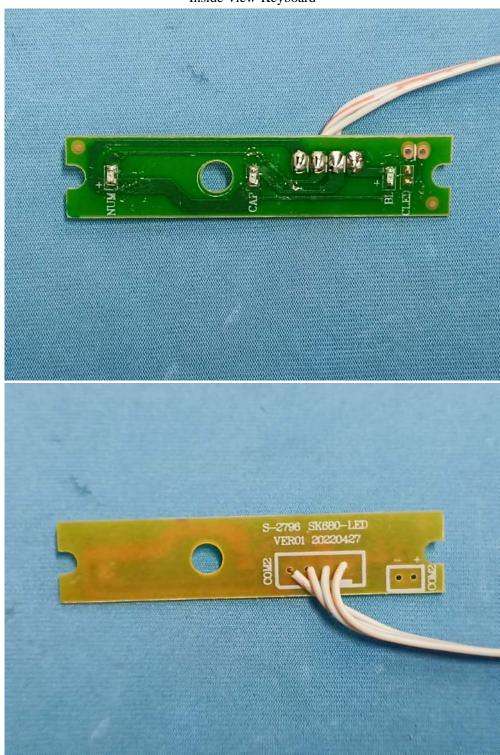
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Inside View-Keyboard



---End of the Report--

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