



Report No.: TW2104142E File reference No.: 2021-04-21

Applicant: Shenzhen Star Sources Electronic Technology Co., Ltd.

Product: Wireless Keyboard

Model No.: ST-SKB698W, HPX-KX700, KX700

Brand Name: 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

Jack Chung

Jack Chung

Manager

Dated: April 21, 2021

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

Date: 2021-04-21



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# **Special Statement:**

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

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

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

# **CNAS-LAB Code: L2292**

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

# FCC-Registration No.: 744189

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

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

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

# A2LA (Certification Number:5013.01)

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

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# Test Report Conclusion Content

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

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Band Edge Test Result.

Antenna Requirement.

20dB bandwidth measurement.

FCC ID Label....

Photo of Test Setup and EUT View.

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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 Star Sources Electronic Technology Co., Ltd.

Address: Room 1102, Block 1 st, Yi Luan Building, Xixiang Road 230, BaoAn District, Shenzhen, China

Telephone: +86-755-86397260 Fax: +86-755-26609516

# 1.3 Description of EUT

Product: Wireless Keyboard

Manufacturer: Shenzhen Star Sources Electronic Technology Co., Ltd.

Address: Room 1102, Block 1 st, Yi Luan Building, Xixiang Road 230, BaoAn District,

Shenzhen, China

Brand Name: N/A

Model Number: ST-SKB698W

Additional Model Name HPX-KX700, KX700

Hardware Version: V1.0 Software Version: V3.2

Serial No.: STSKB698W21050600006 Rating: DC1.5V, 1pc AAA battery

Modulation Type: GFSK

Operation Frequency: 2405-2475MHz

Channel Number: 8

Channel List:

Channel	1	2	3	4
Frequency (MHz)	2405	2411	2417	2451
Channel	5	6	7	8
Frequency (MHz)	2457	2463	2469	2475

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Antenna Designation

PCB antenna with gain -1.2dBi Max (Get from the antenna specification

provided by the applicant)

1.4 Submitted Sample: 1 Sample

1.5 Test Duration

2021-04-10 to 2021-04-21

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

Terry Tang

The sample tested by

Print Name: Terry Tang

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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	2020-06-23	2021-06-22
LISN R&S		EZH3-Z5	100294	2020-06-23	2021-06-22
LISN	R&S	EZH3-Z5	100253	2020-06-23	2021-06-22
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2020-06-23	2021-06-22
Loop Antenna	EMCO	6507	00078608	2018-06-25	2021-06-24
Spectrum	R&S	FSIQ26	100292	2020-06-23	2021-06-22
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2020-06-23	2021-06-22
Horn Antenna	R&S	BBHA 9120D	9120D-631	2018-07-09	2021-07-08
Power meter	Anritsu	ML2487A	6K00003613	2020-06-23	2021-06-22
Power sensor Anritsu  Bilog Antenna Schwarebeck  9*6*6 Anechoic  EMI Test Receiver RS		MA2491A	32263	2020-06-23	2021-06-22
		VULB9163 9163/340		2018-07-04	2021-07-03
			N/A	2020-07-06	2021-07-05
		ESVB	826156/011	2020-06-23	2021-06-22
EMI Test Receiver	RS	ESH3	860904/006	2020-06-23	2021-06-22
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2020-06-23	2021-06-22
Spectrum	HP/Agilent	E4407B	MY50441392	2020-06-23	2021-06-22
Spectrum	RS	FSP	1164.4391.38	2021-01-16	2022-01-15
RF Cable	Zhengdi	ZT26-NJ-NJ-8M /FA		2020-06-23	2021-06-22
RF Cable	Zhengdi	7m		2020-06-23	2021-06-22
RF Switch	EM	EMSW18	060391	2020-06-23	2021-06-22
Pre-Amplifier	Schwarebeck	BBV9743	#218	2020-06-23	2021-06-22
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2020-06-23	2021-06-22
LISN	SCHAFFNER	NNB42	00012	2021-01-07	2022-01-06

#### 2.2 Automation Test Software

## For Conducted Emission Test

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

## For Radiated Emissions

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

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#### **Technical Details** 3.0

#### 3.1 **Summary of test results**

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.207	Conducted Emission Test	N/A	Complies
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Fundamental	PASS	Complies
FCC Part 15, Paragraph 15.209	Radiated Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	PASS	Complies

#### 3.2 **Test Standards**

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

#### 4.0 **EUT Modification**

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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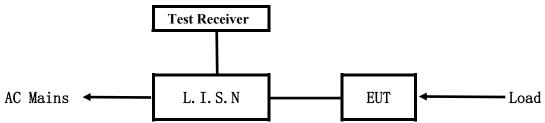
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### 5. Power Line Conducted Emission Test

## 5.1 Schematics of the test

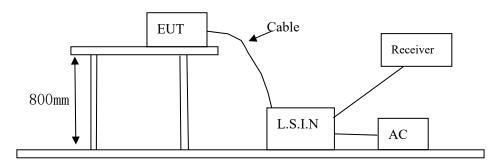


EUT: Equipment Under Test

# 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.

### 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.

One channels are provided to the EUT

## A. EUT

Device	Manufacturer	Model	FCC ID
	Shenzhen Star Sources Electronic	ST-SKB698W,	
Wireless Keyboard	Technology Co., Ltd.	HPX-KX700,	ZJE-SKB698W
	recimology Co., Ltd.	KX700	

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

Notes:

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

5.6 Test Results: N/A

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

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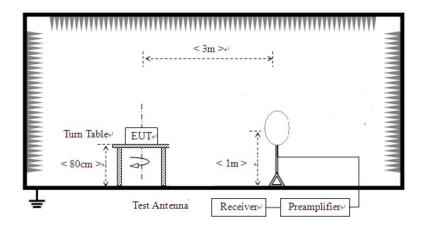


#### **6** Radiated Emission Test

- 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**

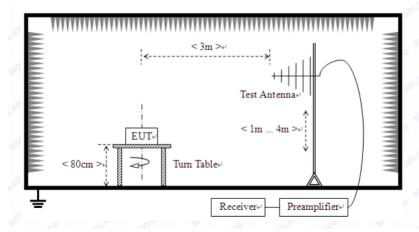
For radiated emissions from 9kHz to 30MHz



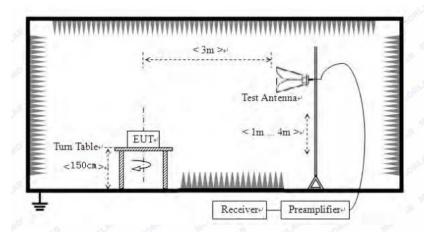
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of The EUT

  Same as section 5.3 of this report
- 6.3 EUT Operating Condition
  Same as section 5.4 of this report.

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### 6.4 Radiated Emission Limit

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

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

Fundamental Frequency	Field Stre	ength of Fundame	ental (3m)	Field S	trength of Harmo	onics (3m)
(MHz)	mV/m	dBuV/m		uV/m	dBuV/m	
2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)

Note:

- 1. RF Field Strength (dBuV) = 20 log RF Voltage (uV)
- 2.Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- 3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

# B. Frequencies in restricted band are complied to limit on Paragraph 15.209.

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
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. New Battery was used during tests.

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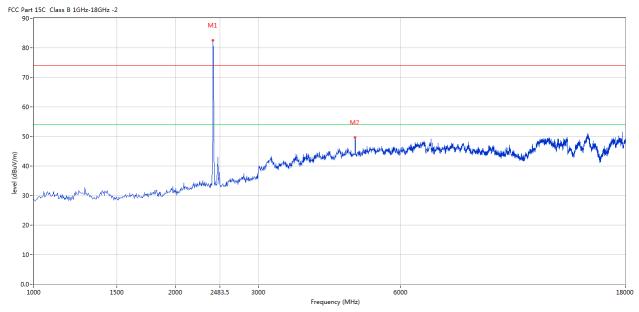


# 6.5 Test result

# A Fundamental & Harmonics Radiated Emission Data

Please refer to the following test plots for details: Low Channel-2405MHz

#### Horizontal



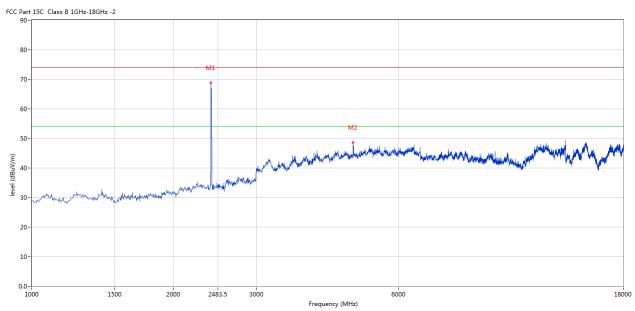
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2405.500	82.56	-3.57	114.0	-31.44	Peak	360.00	100	Horizontal	Pass
2	4810.000	49.67	3.13	74.0	-24.33	Peak	35.00	100	Horizontal	Pass

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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	2405.500	68.86	-3.57	114.0	-45.14	Peak	68.00	100	Vertical	Pass
2	4810.000	48.68	3.13	74.0	-25.32	Peak	248.00	100	Vertical	Pass

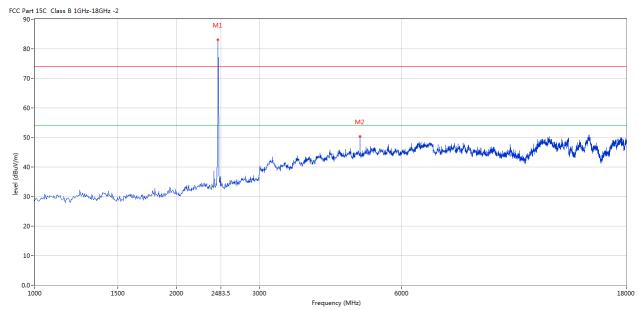
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Please refer to the following test plots for details: Middle Channel-2451MHz

#### Horizontal



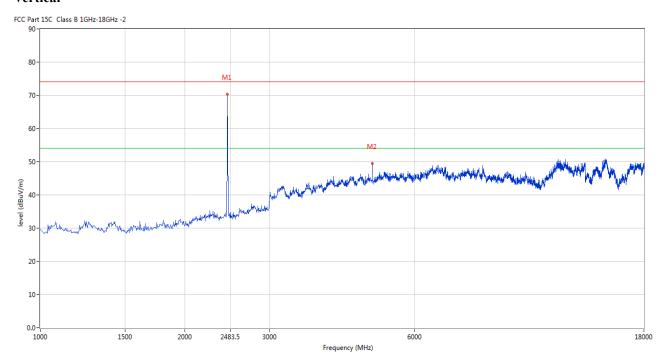
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2451.250	83.01	-3.57	114.0	-30.99	Peak	2.00	100	Horizontal	Pass
2	4901.500	50.28	3.22	74.0	-23.72	Peak	42.00	100	Horizontal	Pass

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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	2451.250	70.34	-3.57	114.0	-43.66	Peak	332.00	100	Vertical	Pass
2	4901.500	49.56	3.22	74.0	-24.44	Peak	245.00	100	Vertical	Pass

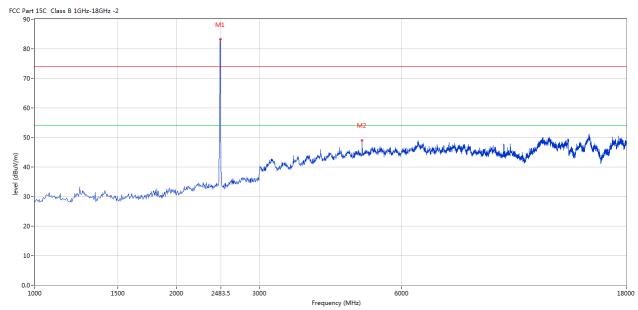
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Please refer to the following test plots for details: High Channel-2475MHz

#### Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2474.750	83.19	-3.57	114.0	-30.81	Peak	355.00	100	Horizontal	Pass
2	4952.500	49.03	3.34	74.0	-24.97	Peak	42.00	100	Horizontal	Pass

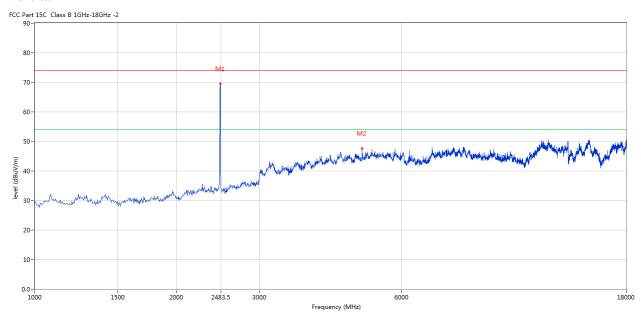
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### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2474.750	69.57	-3.57	114.0	-44.43	Peak	338.00	100	Vertical	Pass
2	4948.250	47.59	3.33	74.0	-26.41	Peak	247.00	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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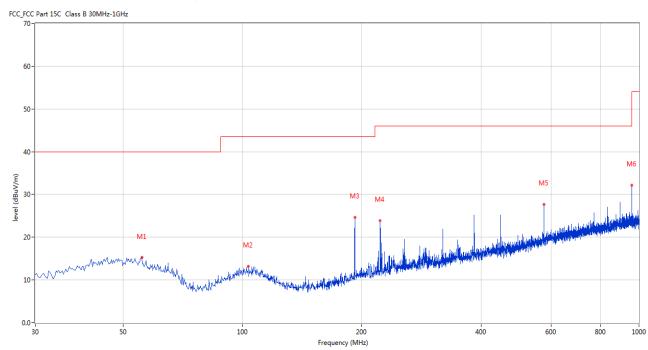


# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

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	55.699	15.23	-11.94	40.0	-24.77	Peak	200.00	100	Horizontal	Pass
2	103.459	13.16	-13.36	43.5	-30.34	Peak	287.00	100	Horizontal	Pass
3	191.950	24.62	-14.07	43.5	-18.88	Peak	16.00	100	Horizontal	Pass
4	222.497	23.91	-13.20	46.0	-22.09	Peak	180.00	100	Horizontal	Pass
5	575.974	27.63	-5.83	46.0	-18.37	Peak	322.00	100	Horizontal	Pass
6	959.998	32.13	-1.63	46.0	-13.87	Peak	83.00	100	Horizontal	Pass

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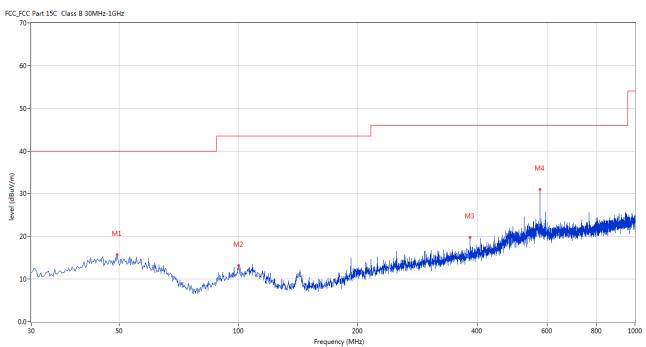


# Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	49.395	15.74	-11.28	40.0	-24.26	Peak	89.00	100	Vertical	Pass
2	100.065	13.19	-13.52	43.5	-30.31	Peak	10.00	100	Vertical	Pass
3	383.962	19.79	-9.16	46.0	-26.21	Peak	23.00	100	Vertical	Pass
4	575.974	30.96	-5.83	46.0	-15.04	Peak	107.00	100	Vertical	Pass

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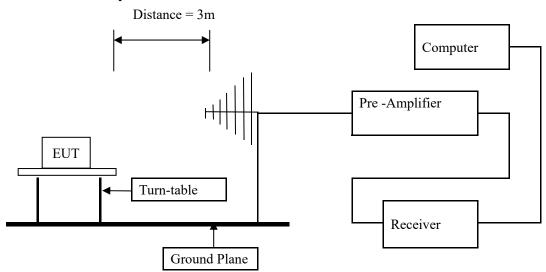


## 7. Band Edge

#### 7.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) Set Spectrum as RBW=1MHz, VBW=3MHz and Peak detector used for PK value. RBW=1MHz, VBW=10Hz and Peak detector used for AV value.
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) The antenna polarization: Vertical polarization and Horizontal polarization.

# 7. 2 Radiated Test Setup



For the actual test configuration, please refer to the related items – Photos of Testing

### 7.3 Configuration of The EUT

Same as section 5.3 of this report

# 7.4 EUT Operating Condition

Same as section 5.4 of this report.

# 7.5 Band Edge Limit

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

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

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### 7 ( T. ... D

Product:	Wireless Keyboard	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC1.5V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		
C Part 15C Class B 1GHz-18GHz -2 90 -			
70-			

80-	
70-	
60-	
50-	
40 - 40 - 30 -	Advitor and the state of the st
20-	
10-	
0.0 - 23	550 Frequency (MHz)

No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
2	2400.313	49.78	-3.57	74.0	-24.22	Peak	360.00	100	Horizontal	Pass
3	2390.687	36.29	-3.53	74.0	-37.71	Peak	360.00	100	Horizontal	Pass

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Product:		Wirele	ess Keyboar	d	Detect	or	•	Vertical	
Mode		Keeping	g Transmitti	ng	Test Volt	tage	Ι	DC1.5V	
Temperature		24	4 deg. C,		Humid	ity	5	6% RH	
Test Result:			Pass						
Part 15C Class B 1GHz-180	Hz -2								
90-									
80-									
70-									
							$\bigcap$		
60-							/ \		
00-							/		
50-									
						/			
50-						a market mark		Market	
50-	ik di ja kirjerraksupungaleksurunt padyasi cak	and and a set by the second districtions	<del>a pipa jiha saga ahlah sh</del> aha sa	Asiatopojevilinis išiajski kasinovilini	and the second s	and a state of the		Northead are substantial	ultan da kalagun dhalliga an
50- 40- Westerpolitical production data	k dia karipandan propositi kapan di sadiyasi sadi	nder of the second disease	agaghan ildaya distracibli silan dan da	d listing of positive in the condition of the	-deserted man design and the deserted many and	nether state of the state of th		Markaduseres statement in the	<u>identi beigen dalgen</u>
50 - 40 - Wester, polycological production and the	ik di ja kirjerrah nyungalik kurundi rak yak sada	white the state of	and the state of t	તી, પોલિક (૧૪૧) ફેન્સ (પોલિક (૫૫)	ales estados que construido de la construida de la constr	in the selection of the second		and the state of t	ademaké heripembiligena
50- 40- Westerpolitical production data	ik dia jina kangandan pengalik napundan kelepak saki saki	nder de sette proceditoren a	ng giban di king ni sipen ni bin shere here ya	ત્રી કોંગલ કરવા કે	- مطاوعة الأعلى الموادية المو الموادية الموادية ال	na distantifu		and have the state of the state	alenda belevendelgen.
50 - 40 - 40 - 40 - 40 - 40 - 40 - 40 -	ik diju jih biyotodhuquadil huvu uliyadi yadi sadi	under the state of	and the state of t	તી, પોલિક સ્ટાપ્ટ કરો કરો છે. કરો	abouts a second of the second	in the state of th		and the second s	<u>inen er bergen delige e</u>
50- 40- Herritage had single unbeworder 30- 20-	ikata phasimanika propalite kuru mili ani tentutudi	nder et de producer	agaylara ilik kun distra addishir u harrida	તાં જિલ્લા કરવા કર્યું છે. તે કરો તે કરો તે કરી	مسطان والمعارض المسائدة المعارض المعار	haranti taraki karan		who had are above a large land	2420
50- 40- 30- 20- 10- 0.0- 2350				Frequency (MHz)	1	in the section of the			2420
30- 20- 10- 2350	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	2420
50- 40- 30- 20- 10- 0.0- 2350				1	Detector	Table (o)	Height (cm)		2420
30- 20- 10- 2350	Results	Factor	Limit	Over Limit	1	Table (o)	_		

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Pr	roduct:		Wirele	ss Keyboar	d	Polari	ty		Horizontal	
1	Mode		Keeping	g Transmitti	ng	Test Vol	tage		DC1.5V	
Tem	perature		24	l deg. C,		Humid	ity		56% RH	
Test	t Result:			Pass						
C Part 15C	Class B 1GHz-18GHz	-2				•				
80-				M1						
60-			$-\!\!\!\!/$							
50-		· · · · · · · · · · · · · · · · · · ·			Singles	M2				
	designation and the second	and a supplementation of the supplementation			Jugung		A STATE OF THE PARTY OF THE PAR	och de star de spatier es de	الماعارة والماران وال	and the state of t
40-	deriferants about the first plant of the second second	anticipe de la companya de la compa			Ling Arriva		and the spinor of the same	richteile der gegeben der bei	ellent ole egy kan tender teks elle segt, segt	orden direktorish
40- 20-	derligencies de la différencie de la constante	anticipe de la companya de la compa			in the same		and the second section of the second	nchide Muse in equilibration	ellerini ngara najaparahika alingka ng	netho a direferentific
30-	derilleranis Albert für Friedrich	gettisikke esigetisik dan			Frequency (MHz)	2483.5	and the second of the second	nelseleseleseleseleseleseleseleseleseles	ili en la segui de constitui di segui de constitui di segui de constitui di segui de constitui di segui de con	2500
20 - 10 - 2460	Frequency	Results	Factor	Limit	Frequency (MHz)  Over Limit	2483.5	Table (o)	Height	ANT	
40- 20- 10-			Factor (dB)	Limit (dBuV/m)		2483.5				2500

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Product:			Wireless Keyboard		Detector		Vertical			
Mode			Keeping Transmitting		g	Test Voltage		DC1.5V		
Temperature			24 deg. C,		Humid	lity	56% RH			
Test Result:			Pass							
CC Part 150	iC Class B 1GHz-18GHz	: -2					•			
50										
80-										
70-				M1						
60-										
50-										
(w/										
(m//mgp) 40-	والمسالمة والمساورة والمراجعة والمساورة والمساورة	an ann an Indiana an Ann a	Hard Street Land Control of Contr		The state of the s	M2	e in diameter and a second	anao andro a stockar to	sa managan ang kanta	or and the state of
~	Moderation des fontaines de décode out al m	de herriet dan jernen feld fleren fantiske konstru	Hale Bridge Brid		The same of the sa	M2	a i i dipulita di anglesi	-th-Annually to pay have been been	hoter the state of	nad antiquida distributada
30-	theteristance of the course the short of the	do decode Against an de délicop de distribute de servicio	Hale Market Barrier St.		The same of the sa	M2	atid djustadovadenasyon	<del>ed Angeredd yn y holer bende b</del> il	hoder of the supplement of the legisles of	nadowiala dipoda jifapia
(m/ 40 - 40 - 40 - 40 - 40 - 40 - 40 - 40	the distribution of the di	to karaja (da kirana) da kirana karaja k	New Property and Section 1981			M2	aisik dipublishka ada magana	nti denne jiji ne o <sub>r</sub> i, kee dente dal	विवर्षकां कृतिक के अपने के स्वर्षकां के स्वर्षकां के स्वर्षकां के स्वर्षकां के स्वर्षकां के स्वर्षकां के स्वर्	and so he has a ship has a
30-	illedisplacedur fenzionelle Hoden et alle	to benefit facilities of the little way in the l	Harris and San			M2	acida dipustanterradormanens	nii deesen jiili san oo baan daa daa daa daa daa daa daa daa daa	hotographic ang tang da	and are less than the state of
20-	ilderija vedar fantspress Hedere ei ve	de kernigh (haliptene) (haliptene) (haliptene)	Haden and the second			M2	aid for the street on the same of	eni de aren dilipuro, i desti denina dal	hokesiyaddidusifililiyasibi diridikasi	nud artin diponi, jelapsa
20-		to invest the desire of the little way to be the second of the little way to be the second of the se	Hadele Berger and State		Frequency (MHz)	M2	asish dipudi dipundu angaw	neit deutsen gille zu eg, h. best - besteu bei	hoder green, and the description are also distributed and the second and the seco	2500
20-		Results	Factor	Limit		2483.5			ANT	
20-			Factor (dB)	Limit (dBuV/m)	Frequency (MHz)		Table (o)	Height (cm)	ANT	2500

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 -1.2dBi Max. It fulfills the requirement of this section. Test Result: Pass

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SK Modulation						
Product:	Wireless Keyboard	d Te	est Mode:	Keep transmitting		
Mode	Keeping Transmittir	ng Te	est Voltage	DC1.5V 56% RH		
Temperature	24 deg. C,	H	Humidity			
Test Result:	Pass	I	Detector	PK		
dB Bandwidth	2.675MHz					
<u>^</u>	Marker 1 [T1 ndB	] RBW	100 kHz	RF Att 20 dB		
Ref Lvl	ndB 20.00	dB VBW	300 kHz			
10 dBm	BW 2.67535070	MHz SWT	5 ms	Unit dBm		
10			▼ <sub>1</sub> [T1	] -2.45 dBm		
				2.40549599 GHz		
0	, M		ndB	20.00 dB		
	The state of the s	Mullim Mullim	BW BW	2.67535070 MHz		
-10	allow War and a second		WALT IT	1] -22.55 dBm 2.40366232 GHz		
	المستميم		▼ <sub>T2</sub> [\	1] -22.63 dBm		
-20	7		- 4	2.40633768 GHz		
1MAX				4 martinany		
-30						
-40						
-50						
-60						
-70						
9.0						
-80						
-90 Center 2.40	)5 GHz	500 kHz/	l	Span 5 MHz		

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GFSK Modulati	on						
Product:	Wireless Keyboard			est Mode:	Keep transmitting		
Mode	Keepi	ng Transmitting	Te	est Voltage	DC1.5V 56% RH PK 		
Temperature		24 deg. C,	]	Humidity			
Test Result:		Pass		Detector			
20dB Bandwidth		2.685MHz					
₹ <b>X</b>	Marker	1 [T1 ndB]	RBW	100 kHz	RF Att	20 dB	
Ref Lvl	ndB	20.00 dB	VBW	300 kHz			
10 dBm	BW	2.68537074 MHz	SWT	5 ms	Unit	dBm	
				<b>V</b> 1 [	r1] -	3.31 dBm A	
0					2.45048	397 GHz	
		w.	10	ndB M BW	2.6853	0.00 dB 7074 MHz	
-10			hall the same	Wu _	[T1] -2.	3.41 dBm	
10	سر			My	2.44960	6232 GHz	
-20	200			$\triangledown_{\mathrm{T2}}$	[T1] -2:	2.70 dBm	
1MAX	7				2.45234	4770 GHz <b>1MA</b>	
	my /				) www.	M	
-30	40					7	
<b>/</b> ~							
-40							
-50							
-60							
-70							
-80							
-90	151		/				
Center 2.		500	kHz/		Spa	an 5 MHz	
Date: 19.	APR.2021 1	0:22:20					

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Product:	Wireless Keyboard			est Mode:	Keep transmitting		
Mode	Keeping	Transmitting	To	est Voltage	DC1.5V 56% RH PK		
Temperature	24	deg. C,	]	Humidity			
Test Result:		Pass		Detector			
0dB Bandwidth	2.6	655MHz					
<u>r</u>	Marker 1 [T1 ndB]			100 kHz	z RF Att 20 dB		
Ref Lvl	ndB	20.00 dB	VBW	300 kHz			
10 dBm	BW 2	.65531062 MHz	SWT	5 ms	Unit	dBm	
10				<b>v</b> 1 [7	21] -	3.78 dBm	
0					2.4755		
				1 ndB N BW	2.65533	0.00 dB 1062 MHz	
-10		and the sound		~~~ _	[T1] -2	4.29 dBm	
-10	700	7		N.	2.4736	7234 GHz	
-20				$\nabla_{\mathrm{T2}}$	<b>[</b> 1] -2	4.10 dBm	
1MAX	7				T2 2.47632	2766 GHz	
-30 <b>m</b> m/m//	M.				1 Johnson	May 1	
-30	<b>V.</b> II				W		
						V	
-40							
5.0							
-50							
-60							
-70							
-80							
-90 Center 2.47	75 GHz	500 }	cHz/		Spa	an 5 MHz	
Date: 19.A		:23:33			1		

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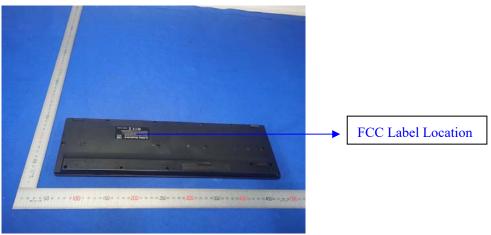


## 10.0 FCC ID Label

#### FCC ID: ZJE-SKB698W

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:**

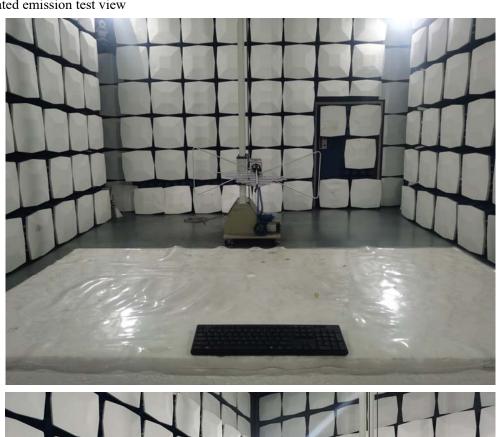


Date: 2021-04-21



#### 11.0 Photo of testing

#### 11.1 Radiated emission test view





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#### 11.2 Photographs-EUT

#### Outside View





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# Photographs - EUT

## Outside View





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Outside view



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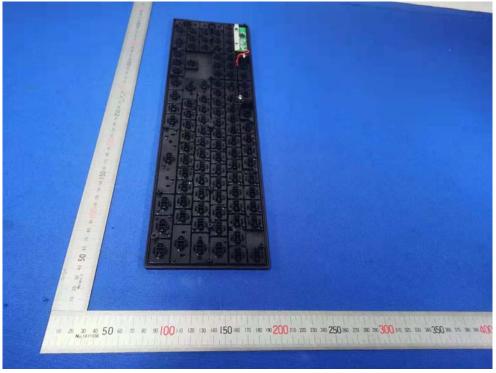
Report No.: TW2104142E

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Inside view





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Inside view





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