KINGSTAR KM50 Wireless Keyboard Instructions

2.4G keyboard instructions
wireless keyboard ver7.0

Contents

Product Overview

1. It is compatible with USB1.1/2.0 specification and can assist USB-IF and WHQL
2. High-quality BK2425 RF, 16-channel adaptive frequency hopping operation, stable/low power consumption/strong anti-interference ability, directionless
3. Ultra-low power consumption design (working=0.7mA, sleep=3uA)
4. Support 8 * 18 matrix and multiple language versions
5. It can support 18 standard multimedia functions
6. CAPS LOCK and NUM LOCK indicators are supported, and the LED status is synchronized with the host
7. Built-in maintenance mode facilitates the detection and maintenance of defective products
8. Support computer sleep wake-up and self sleep wake-up
9. Intelligent multi-level power-saving design
10. Support Mouse/Keyboard package mode Code description

Mode 1: key combination

At the same time, press the “ESC”+”+=” key for 1 second, and the keyboard will enter the code checking mode (the low voltage indicator light will be on for a long time). After the receiver is inserted within 20 seconds, the code checking is successful, and the LED will go out immediately; Code checking failed. After 20s, the keyboard exited the code checking mode, and the LED went out

Mode 2: code matching key

Press the code checking key, the keyboard will enter the code checking mode (the low voltage indicator light will be on for a long time), and the receiver will be inserted within 20s. The LED goes out immediately after the code is successfully matched; Code checking failed. After 20s, the keyboard exited the code checking mode, and the LED went out

Mode 3: software code checking

Open the code checking software, insert the receiver into the USB interface, and automatically enter the code checking mode. Press the keyboard code checking key or press the “ESC”+”+/=” key within 20s to check the code for 1 second. If the code checking is successful, the software displays<keyboard code checking success>; Otherwise, the code checking mode will be launched after 20S.

Function description

1 Low-voltage LED lamp: used to indicate low-voltage and code checking status; At the same time, it can be used to prompt the problem points of defective products during maintenance

1. Code checking status indication – the keyboard enters the code checking mode, the low voltage LED is always on, the code checking is successful, and the low voltage LED is off
2. Low voltage status indication – When the battery is at low voltage, the low voltage LED flashes, the voltage is normal, and the low voltage LED goes out
3. Indication of abnormal function status:
    1. Under normal conditions — power on, the indicator light is on once and then off
    2. Indicator light is not on — MCU does not work

    **Two LED states of Numlock+Caps can be synchronized with the host

When the Numlock/Caps function is turned on, the LED will be on and indicate for 5 seconds. If there is a key in 5 seconds, the timer will be counted again for 5 seconds (the key will be off 5 seconds after it is released). If the light is off, the key will continue to be on for 5 seconds

Note: When the low voltage indicator reaches the set value, it starts to flash for 5 times. When the key is pressed, it will count again for 5 seconds until the power is exhausted

Working current

Overall power consumption index (2 batteries, 3V)

Working current (with key pressed)	0.7mA
Quiescent current (key release)	3uA

● Keyboard matrix application description

Large keyboard status

1. The 104/107 key keyboard matrix is compatible with Yilong EMC83053. See “Keyboard Matrix” on the back page for key arrangement. 2. Fn+F1-F12 multimedia function description

Press and hold Fn, and then press F1-F12 to turn F1-F12 into a multimedia function key

2. Fn+F1-F12 multimedia function description

   Press and hold Fn, and then press F1-F12 to turn F1-F12 into a multimedia function key

Default	**Hot key**	**Default**	**Hot key**	**Default**	**Hot key**	**Default**	**Hot key**
F1	Media	F4	Mute	F7	Play/Pause	F10	E-mail
F2	Volume-	F5	PreTrack	F8	CD Stop	F11	My computer
F3	Volume+	F6	Next Track	F9	web home	F12	wwwFavorite

Keyboard

	R0	R1	R2	R3	R4	R5	R6	R7
C0	**Pause**	**Power**	**usb dongle**	**Sleep**	**Ctrl-R**	**Wake up**	**Ctrl-L**	**F5 (pre track)**
C1	**Q**	**Tab**	**A**	**Esc**	**Z**	**N-chg**	**`(~)**	**1 (!)**
C2	**W**	**Caps**	**S**	**K45**	**X**	**Chg**	**F1 (media)**	**2 (@)**
C3	**E**	**F3 (vol+)**	**D**	**F4 (mute)**	**C**	**ROMA**	**F2 (vol-)**	**3 (#)**
C4	**R**	**T**	**F**	**G**	**V**	**B**	**5 (%)**	**4 ($)**
C5	**U (4)**	**Y**	**J (1)**	**H**	**M (0)**	**N**	**6(^)**	**7 (&) (7) 8 (*)**
C6	**I(5) O**	**] (})**	**K (2) L**	**F6 (next track)**	**, (<) . (>)**	**K56**	**+’ (=)**	**(8) 9 (()**
C7	**(6) P**	**F7 (play/pau)**	**(3) ; (:)**	type-c dongle	**(.)**	**App / (?)**	**F8 (CD stop)**	**(9) 0 ())**
C8	**(-)**	**[({)**	**(+)**	**‘ (“)**	**K42**	**(/)**	**_ (-)**	**(*)**
C9	**Scroll**	**Connect ~~button~~**	**Fn**	**Alt-L**		**Alt-R**	**Connect ~~button~~**	**Print**

C10	**K14**	**Back**	\ (|)	**F1 1 (computer)**	**Enter**	**F12 (www fav)**	**F9 (web home)**	**F10 (mail)**
C11	**7 (K)**	**4 (K)**	**1 (K)**	**Space**	**Num**	↓	**Del**	**Power**
C12	**8 (K)**	**5 (K)**	**2 (K)**	**0 (K)**	**/ (K)**	→	**Ins**	**Sleep**
C13	**9 (K)**	**6 (K)**	**3 (K)**	**.(K)**	*** (K)**	**K)**	**Page Up**	**Page down**
C14	**+ (K)**	**K107**	**Enter (K)**	t	**Play/Pause**	←	**Home**	**End**
C15	**Wake up**	**Shift_L**	**Shift-R**	**Volume-**	**Volume +**	**Next Track**	**Prev Track**	**Media**
C16	**Mail**	**WIN-L**	**www Forward**	**www Stop**	**www Back**	**www Refrech**	**Mute**	**www Search**
C17	**K150 (KC-L)**	**www Favourite**	**WIN-R**	**My Computer**	**Stop**	**Calculator**	**Web/Home**	**K151 (KC-R)**

Electrical characteristics

Keyboard IC_ CX5177

Symbol	**Parameters**	**VDD**	**Status**	**minimum value**	**Typical value**	**Maximum**	**Company**
VDD	working voltage			2.4	3.0	4.5	V
IDD	Working current	3V	Standby		≤3.0		uA
Fosc	System frequency	3V			1.0		MHz

receiver IC_ CX5167

Symbol	Parameters	VDD	Status	minimum value	Typical va lue	Maximum	Compan y
VDD	working voltage			4.5	5.0	5.5	V
IDD	Working current	5V	Work		≤10.0		mA
Fosc	System frequency	5V			6.0		MHz

2.4G RF IC _ BK2425

Symbol	Parameters	VDD	Status	minimum value	Typical va lue	Maximum	Compan y
VDD	working voltage			1.9	3.0	3.7	V
IDD	Working current	3V	Work		23		mA
			standby		3		uA
Fosc	System frequency	3V			16.0000		MHz
Freq	Operating frequenc y band			2402		2480	MHz
Rx Sens	Receiving sensitivit y			-80	-87		dBm

RF product technical specification sheet (used by FCC, CE and KCC)

1. Product Name : 2.4G Wireless Mouse/Keyboard
2. Rated Voltage and Current DC 3V , 6mA
3. Frequency hopping method: FHSS
4. receiver sensitivity: -85dBm
5. Frequency Band : 2403.65MHz—2479.65MHz
6. Carrier Frequency : 2403.65 MHz
7. Channel Spacing: 1MHz
8. RF Output Power (ERP OR EIRP) : 0dBm
9. Modulation Type : GFSK
10. Duty Cycle : <10%
11. I.F.: 6 Mhz L.O.: 2601.6Mhz
12. Mode of operation (duplex , simplex): duplex
13. Bit Rate of Transmission : 2Mbps
14. Antenna Type: PCB Antenna
15. Antenna gain: -1~-2dBi
16. Operating Temperature Range: -20 ℃ ~ 55 ℃
17. Channel Bandwidth : 2MHz
18. Preset Target Market EUROPE
19. Number of Channel: 16

1. Channel list:

Channel	1	2	3	4	5	6	7	8
(MHz)	2403.65	2426.65	2441 .65	2463 .65	2407.65	2422.65	2445.65	2466.65
Channel	9	10	11	12	13	14	15	16
(MHz)	2414.65	2436.65	2459.65	2473.65	2419.65	2439.65	2453.65	2479.65

FCC Warnning:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection againstharmful interference in a residential installation. This equipment generates, uses and can radiateradio frequency energy and, if not installed and used in accordance with the instructions, maycause harmful interference to radio communications. However, there is no guarantee thatinterference will not occur in a particular installation. If this equipment does cause harmfulinterference to radio or television reception, which can be determined by turning the equipmentoff and on, the user is encouraged to try to correct the interference by one or more of thefollowing measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.
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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.

Documents / Resources

	**KINGSTAR KM50 Wireless Keyboard** [pdf] Instructions KM50, 2A973-KM50, 2A973KM50, KM51, 2A973-KM51, 2A973KM51, KM50 Wireless Keyboard, KM50 Keyboard, KM50, Keyboard, Wireless Keyboard