

2.4G Light-Up Keyboard/Mouse Manual (V7.0)

Product overview

1. Compatible with USB1.1/2.0 standard
2. High quality BK2425 RF, 16 channel adaptive frequency hopping work, stable/low power consumption/strong anti-jamming ability, no direction
3. Ultra low power design (work =0.7mA, sleep=3uA)
4. Support 8*18 matrix, standard 104/107;
5. Supports FN + F1-F12 multimedia functions
- 6.Support low voltage alarm; Supports Caps Lock, Num Lock indicator lights, and LED status synchronization with host
7. Support Mouse/Keyboard set mode

The code that

Mode one: key combination code

At the same time, short press "ESC" + "+/= " key for 1 second, the keyboard into the code mode (low voltage indicator light is long on), 20S insert receiver code successfully, LED immediately extinguished; Code failure, 20S after the keyboard exit code mode, LED out;

Method two: on the code key code

Press the key to code, the keyboard into code mode (low voltage indicator light is long), insert the receiver in 20S. Code success, LED immediately extinguished; Code failure, 20S after the keyboard exit code mode, LED out;

Method three: software code

Open the code matching software, insert the receiver into the USB interface, and automatically enter the code matching mode. Press the keyboard code matching key or "ESC" + "+/= " key for 1 second for code matching within 20 seconds. If the code matching is successful, the software will display < keyboard code matching is successful >; Otherwise, 20S after the launch of the code mode.

Functional description

one Low voltage LED lamp: used to indicate low voltage and code status; At the same time in the maintenance can be used to prompt the problem points of defective products

1. Code status indication -- the keyboard enters the code mode, the low voltage LED is always on, the code is successful, the low voltage LED is extinguished
2. Low voltage status indicator -- when the battery is at low voltage, the low voltage LED flashes, the voltage is normal, the low voltage LED goes out
3. Abnormal function state indication:
 - 1) Under normal circumstances -- power on, the indicator lights up and then goes off
 - 2) Indicator light is not on -- the MCU is not working
 - 3) Indicator light is always on -- RF is not working or EEPROM is not working

II. Backlight function

1. The keyboard is powered on and the backlight panel is turned on by default.

Press FN+ Scrk to turn on/off the keyboard backlight

2. The brightness of the backlight is divided into three sections. The default is the second section. Press FN+Page Up to increase the backlight brightness and FN+Page Down to reduce the backlight brightness.

3. The backlight will automatically turn off when the keyboard and receiver are disconnected.

4. When the keyboard keys do not move, the backlight will be turned off after 2MIN.

** NUMLOCK + CAPS 2 LED states can be synchronized with host

When the NUMLOCK/CAPS function is turned on, the LED will be on and indicate for 2MIN. If there are keys in 2MIN, the LED will be on for 2MIN again (the keys will be off after 2MIN release). If there are keys, the LED will continue to be on for 2MIN after the light is off

Note: The low voltage indicator will flash 5 times after reaching the set value. When the key is pressed, the time will be reset for 2MIN until the power is exhausted

Total power consumption index

Operating current (no backlight/backlight)	1.5mA/50MA
Static current(keyrelease)	20uA

●● Keyboard matrix application description

Large keyboard state

1. 104/107 key Matrix compatible with Yilong EMC83053, see "keyboard Matrix" on the next page for key arrangement

2. Description of multimedia functions of FN + F1-F12

Hold down FN and then press F1-F12. F1-F12 becomes the 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	NextTrack	F9	web home	F12	wwwFavorite

Electrical characteristics

IC_ CX5177

Keyboard IC_ CX5177

symbol	Number	VDD	State	Min	Typical values	Max	Unit
VDD	Working voltage			2.3	3.0	4.5	V
IDD	Working current	3V	Standby		≤3.0		uA
Fosc	system frequency	3V			1.0		MHz

2.4G RF IC _ BK2425

Symbol	Number	VDD	State	MIN	values	Max	Unit
VDD	Working voltage			1.9	3.0	3.7	V
IDD	Working current	3V	Word		23		mA
			Standby		3		uA
Fosc	System frequency	3V			16.0000		MHz
Freq	Working frequency			2402		2480	MHz
Rx Sens	Receiving sensitivity			-80	-87		dBm

- RF product technical specification table (FCC, CE, 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 : 2403.85MHz—2479.85MHz
6. Carrier Frequency : 2403.85 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°C~ 55°C
17. Channel Bandwidth : 2MHz
18. Preset Target Market: EUROPE
19. Number of Channel: 16

1. 信道列表:

Cha	1	2	3	4	5	6	7	8
FRE (MHz)	2403.85	2407.85	2414.85	2419.85	2422.85	2426.85	2436.85	2439.85
Cha	9	10	11	12	13	14	15	16
FRE (MHz)	2441.85	2445.85	2453.85	2459.85	2463.85	2466.85	2473.85	2479.85

键盘 Matrix

	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)
C6	I (5)	l (0)	K (2)	F6 (next track)	, (<)	K56	(=)	8 (* (8)
C7	O (6)	F7 (play/pau)	L (3)	type-c dongle	. (> (.)	App	F8 (CD stop)	9 (0 (9)
C8	P (7)	[(0)	;() (+)	? (?)	K42	! (?) (0)	_ (-)	0 (0) (*)
C9	Scroll	Connect button	Fn	Alt-L		Alt-R	Connect button	Print
C10	K14	Back	\ ()	F11 (computer)	Enter	F12 (www fav)	F9 (web home)	F10 (mail)
C11	7 (K)	4 (K)	1 (K)	Space		↓	Del	wer
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)	↑	Play/Pause	←	Home	
C15	Wake up	Shift_L		Volume-	Volume+	Next Track	Prev Track	Media
C16	Mail	WI	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)

FCC Statement

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 against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following 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.

RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.