

PC430A 三模机械键盘规格书

Specification of PC430A MECHANICAL KEYBOARD

Name: MECHANICAL KEYBOARD

Model: PC430A

Version: 1.0

Write	Check	Approve	Sign
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Remarks: This specification is for reference only.

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Attachment (FYI)

Figure1: diagram (6-view)

Figure2: Keyboard's layout

Figure3: Keyboard's photo

Figure4: Nano receiver's appearance and size

Figure5: Cable

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一、 Product features

1. Double shot keycaps, stylish appearance, easy to clean;
2. Professional tri-mould MECHANICAL KEYBOARD, can switch between different devices freely to finally solve the multi-device problem, either soldering switches or hot swap switch is optional;
3. Rainbow backlight effect, support 18 kinds of backlight modes with convenient operation, can adjust LED brightness and speed freely;
4. With volume knob design, sound/voice adjustment becomes easily and conveniently;
5. Support 100% anti-ghosting.

二、 Mechanical and electric characteristics

Basic parameter	IC solution	Hua Fen Da, HFD48KD200+HFD582CHFS , tri-mould MECHANICAL KEYBOARD		
	Working voltage	Li-battery 3.7V, 2500mA/H		
	Working current	200mA MAX		
	Duration of battery	Keyboard can continuously work 12 hours when LED is under the brightest mode;		
		Under streamer backlight mode, keyboard work 4 hours per days, battery can last for one week;		
		When backlight is off, keyboard can work around 15-20 days;		
	Wireless transmission distance	≥8 meters		
	Interface type	USB+2.4Ghz +Bluetooth tri-mould		
	USB+TYPE-C cable	USB cable, OD:3.8*1800mm, black braided, nickel plated USB, single magnetic ring;		
	Total number of keys	66 keys		
	Multimedia keys	Nill		
	Size	321.9*112.9*42.52mm	Net weight	552±30g (without cable)
	Color	black		
	Working mode	Matrix scan		

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	Keycaps technique	Double shot + laser letters		
	LOGO	Customize	LOGO technique	Silk printing

Parameter characteristics	Key pulling force	≥ 1.5KG
	Key resilience	50±10g
	Keycap spacing	19.00mm±0.05mm
	Tripping force	50±10g
	Touch point force	60±10g
	Operating stroke	4.0±0.5mm
	Preloading height	2.0±0.6mm
	Max force travel (120g)	3.8±0.2mm
	Operating life	More than 50 million tests at the speed of 4 times per second under DC 5V 0.1mA operating conditions
Environmental parameter	Tactile	At the speed of 4 times per second, any position on the key feels no bad hand feeling;
	Working temperature	0 to + 55 °C
	Working humidity	40%~80%
	Storage temperature	-20°C to + 60°C
	Storage temperature	≤93% (40°C)

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Material of main components

Top case	Black	ABS
Middle board	Milky white	PC
Bottom case	Black	ABS
Keycaps	Black	Double shot
Sandwich cotton	White	EVA
Bottom cotton	White	Sponge
Feet	Black	ABS
Pad	Black	Silicone
Switch	Green	/

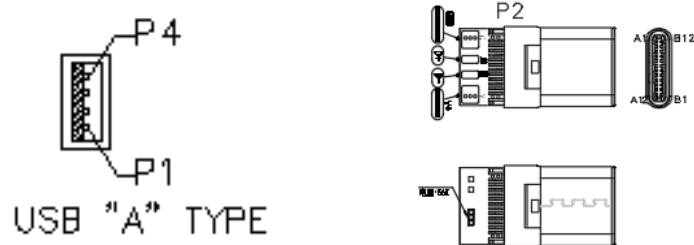
三、 Connection

1、TYPE-C cable full length: 1800mm±30mm

The keyboard is connected to the host through a cable signal line, and the PIN arrangement of the interface is as follows:

2、2.4Ghz dongle connection

3、Bluetooth connection



四、 Letter wear-resistance test

Times of test: > 5000 times;

Test speed: 72 times per minute

Test weights: 500g

Test eraser type: (1107#)

Distance: 12 mm

Test Environment temperature: 25 °C

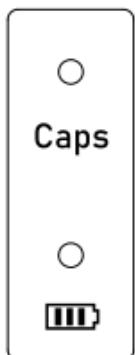
Test humidity: 65%

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五、 Function explanation

1、 LED matrix (primary key region is rainbow backlight)

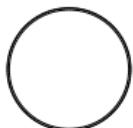
2、 LED indicators:



= Caps Lock

= charging and low voltage indication

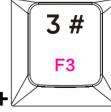
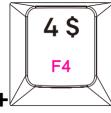
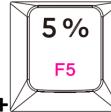
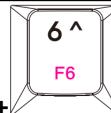
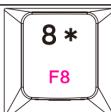
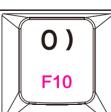
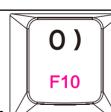
3、 Volume knob: Rotate clockwise is for volume up, rotate counterclockwise for is volume down, and press the knob to mute.



4、 FN combination function

Electrical function definition of rainbow backlight scheme			
MAC system function		WIN system function	
Shortcut keys	Function	Shortcut keys	Function
	Screen brightness -		F1
	Screen brightness +		F2

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	Open task control		F3
	Open the boot pad		F4
	F5		F5
	F6		F6
	Previous track		F7
	Open/stop		F8
	Next track		F9
	Mute		F10
	Volume down		F11
	Volume up		F12
	control		Ctrl
	option		Win
	command		Alt

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MAC/WIN system functions			
Shortcut keys	Function	Shortcut keys	Function
	Exchange among 18 kinds of backlight modes.		
	~ `		2.4 mode (Toggle switch set to 2.4G position)
	Increase backlight brightness		BT mode 1 (Toggle switch set to BT position)
	Decrease backlight brightness		BT mode 2 (Toggle switch set to BT position)
	Backlight speed down		BT mode 3 (Toggle switch set to BT position)
	Backlight speed up		Open/close windows
	Print screen		Scroll lock
	Pause		Ins
	End		Home
	Reset		

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5、 Keyboard toggle switch specification

1. When toggle switch set to 2.4G position, keyboard will go into 2.4G mode;
2. When toggle switch set to BT position, keyboard will go into BT mode;
3. When toggle switch set to USB position, keyboard's battery power is off. Then connect the cable with keyboard, the keyboard will go into USB mode and charging mode;



4. When system toggle switch set to MAC, keyboard will go into MAC OS;
When set to Win, keyboard will go into Windows system.

6、 Charging and low voltage indication specification



When keyboard under charging status, this LED will show red;

When keyboard is fully charged, LED will be off.

Unplug USB charging cable, LED indicator will be off.

When voltage is lower than 3.3V, red LED will be flashing.

7、 Mode indication specification

- 1、Wired mode: No LED indicator, when toggle switch set to USB position, connect USB cable with keyboard, keyboard will go into wired mode;
- 2、2.4G mode: LED under Q key will flash, when pairing process is successfully done, LED under Q key will stop flashing and get back to the previous backlight mode.
- 3、BT device 1: Press FN+W (BT1) respectively goes into pairing process , then the white LED under Q key will flash quickly indicating the pairing process is on-going, when pairing is successfully done, the white LED will stop flashing and get back to the previous backlight mode.
- 4、BT device 2: will be the same operation as FN+E (BT1);
- 5、BT device 3: will be the same operation as FN+R (BT1);

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8、 Device name

When under wired version: Gaming Keyboard

When under 2.4G version: 2.4G Wireless Receiver

When under BT version: **Bluetooth keyboard**

9、 Driver

Support musical rhythm

六、 OS compatibility

- 1、 Port: Conforms to USB specification V1.1, support USB 1.0/1.1 while compatible with USB 2.0/3.0;
- 2、 OS: WINDOWS XP/7/8/10/11, MAC
- 3、 This scheme is FCC, CE, ROHS certificated.

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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.

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.

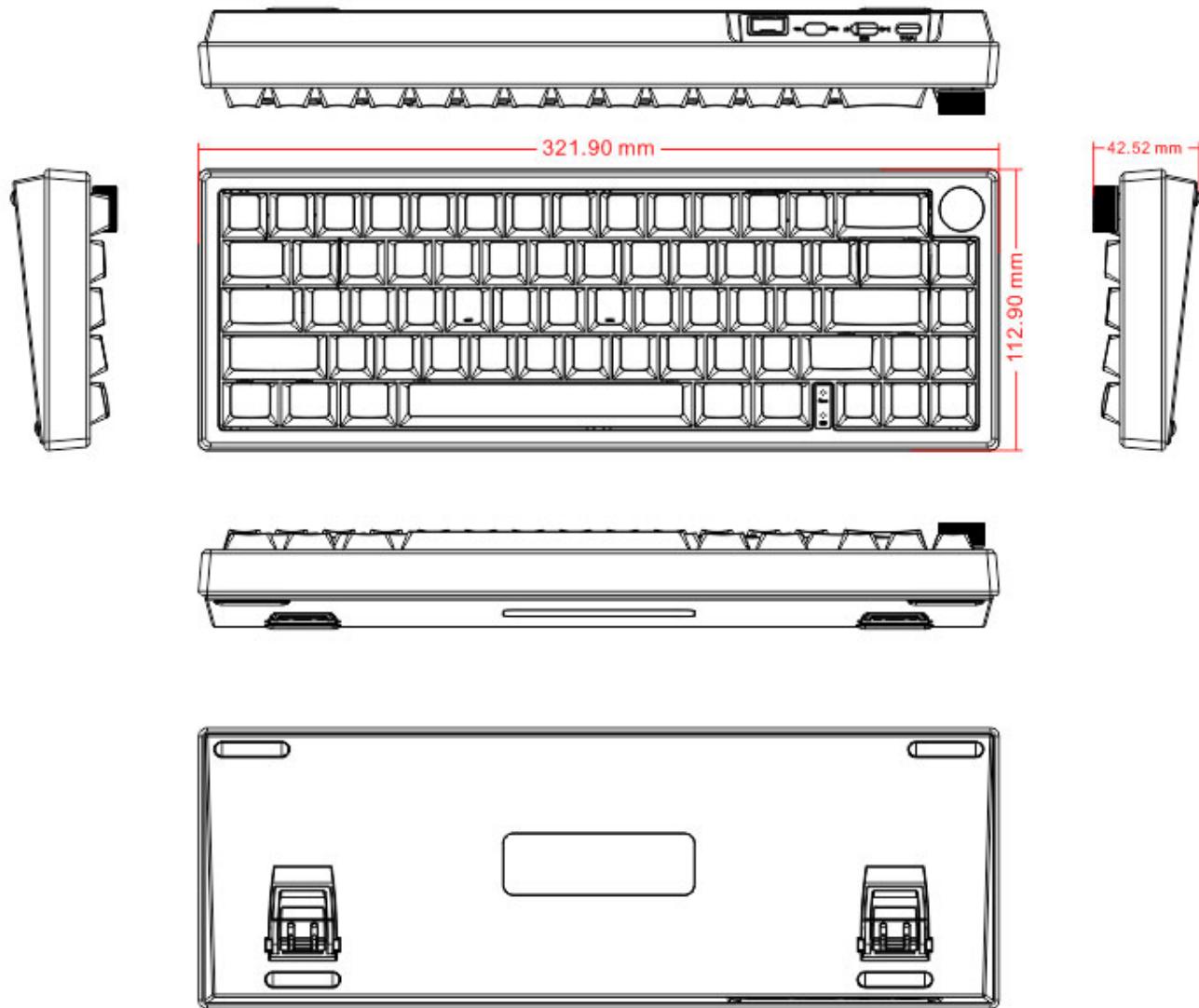
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction.

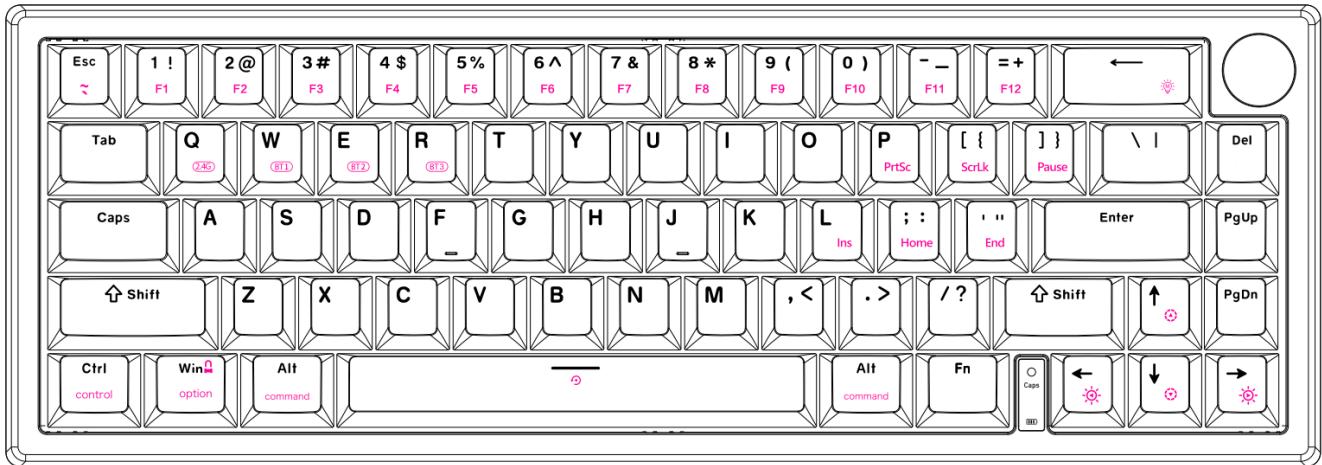
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FIG. 1:



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FIG. 2:



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FIG. 3: (图片仅供参考, 具体功能按实际文版图)

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FIG. 4: Nano receiver

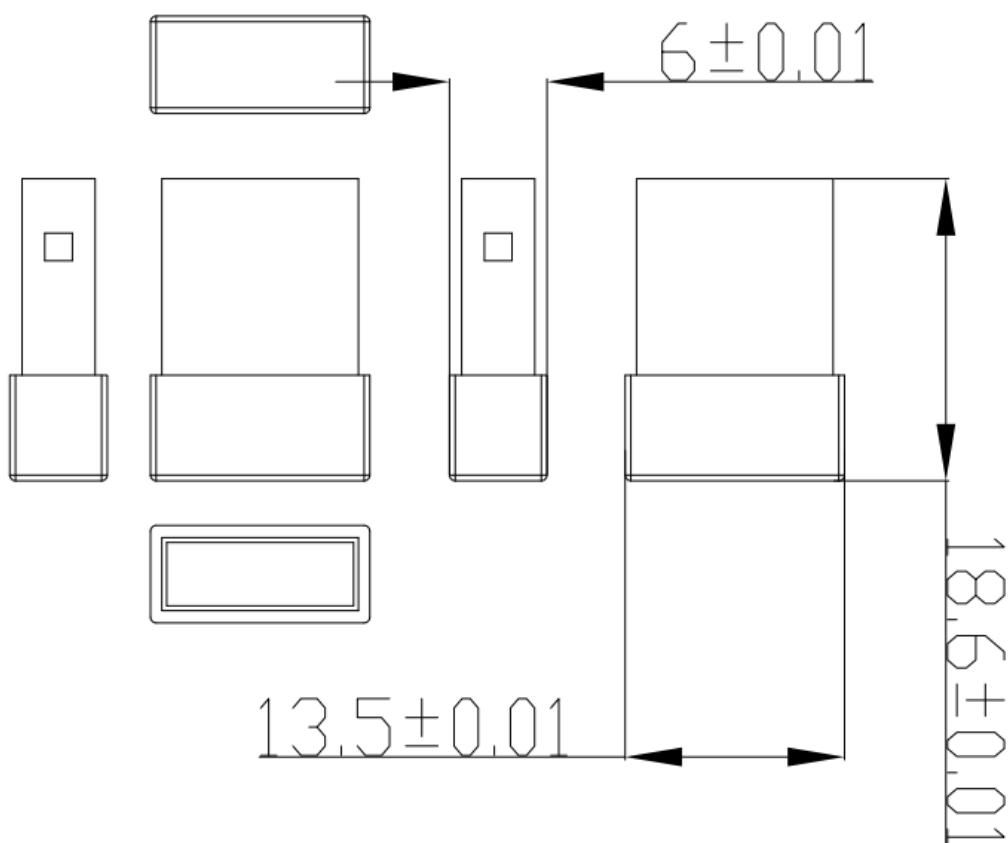
Receiver rating voltage: 5V

Receiver port: USB

Receiver receiving distance: 8 meters

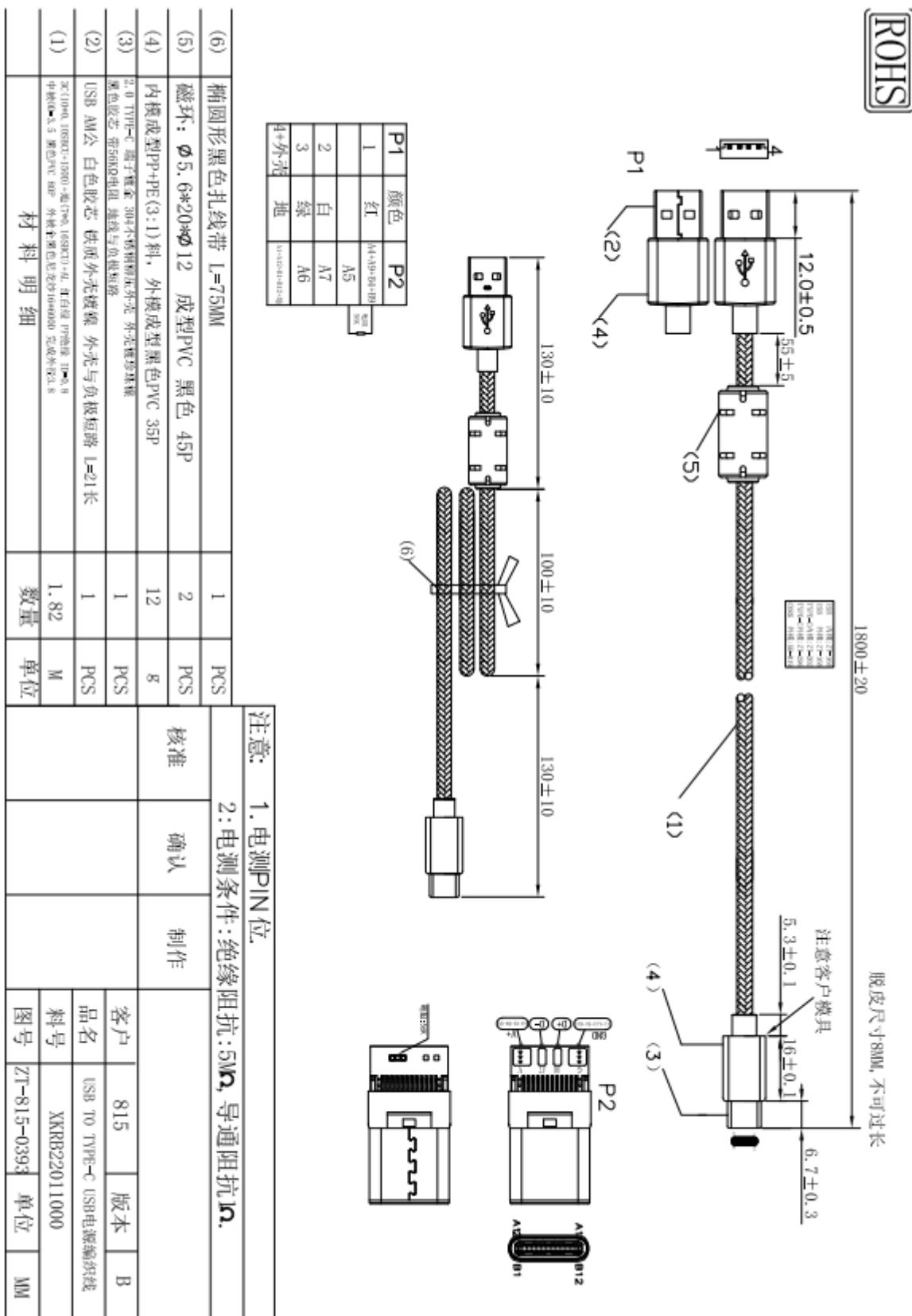
Net weight of receiver: 2g

Size of receiver: $18.6 \times 13.5 \times 6 \pm 0.01 \text{mm}$



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FIG. 5:



WORLD CLASS TECHNOLOGY, WORLD CLASS QUALITY, WORLD CLASS COST.