

# User Manual of Haiwell IoT Cloud CBOX

## IoT Cloud Box User Manual



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## 1. Product introduction

### 1.1 Main functions

Cloud CBOX is an Internet of things terminal. We call it " Haiwell Cloud HMI without screen", which can be easily managed by mobile app and cloud website. It is an industrial automation monitoring and management equipment which runs in an embedded system software, Haiwell SCADA. It monitors the industrial scene by accessing cloud CBOX running pictures from mobile APP and cloud website. It can also communicate with various industrial control devices, collect data and upload it to cloud for further application.

### 1.2 Functional characteristics

- Built-in Haiwell cloud engine, integrated Haiwell cloud service, support cloud/mobile access control
- Integrated HMI function, which can directly monitor the display screen through the mobile phone/PC instead of the HMI screen. The control is flexible and convenient.
- Support A/B Key security mechanism, multi-unit network, database, multi-screen interaction, cloud camera remote monitoring, etc.
- Support MQTT protocol, support access to database server, easily realizing data acquisition and reporting, match with ERP/MES and other systems.
- Support two Ethernet interfaces, support star, tree and bus Ethernet networking.
- Support Haiwell Cloud SCADA cloud configuration software, embedded Haiwell cloud engine, Haiwell cloud service, support accessing through Mobile or cloud terminals.
- Built-in 2 RJ45 interface, 2 USB, 2 serial ports, WIFI, SIM card, optional 4G, DIN-Rail Mounting.

## 2. Product List

Model	Storage	LAN	USB	COM	WIFI	Wireless network	Product size (mm) Width × height × depth
CBOX	4G+512M	2	2	2	√		50×120×85mm
CBOX-G	4G+512M	2	2	2	√	4G (China)	
CBOX-E	4G+512M	2	2	2	√	4G (Global)	

## 3. Technical specifications

Specification	Model	CBOX
Hardware	CPU	4-core A7 processor
	Flash	4GB
	RAM	512MB
	Ethernet	2*10/100 Base-T
	Serial port	RS485/RS232
	USB(HOST)	2*USB 2.0
	RTC	Yes
Power	Rated input voltage	24VDC±20%
	Power Consumption	7W@24VDC
	Power protection	Surge protection & anti-reverse protection
	Withstand voltage	500V AC
	Insulation voltage	50MΩ @500VDC or more
Environment	Cooling method	Natural air circulation

	Storage temperature	-20~70℃
	Operating temperature	-10~60℃
	Relative humidity	5 ~ 90% RH ( non-condensing )
	Vibration resistance	10~25 Hz X, Y, Z directions 2G/30min
	Impact resistance	15G continuing for 11ms 6 times in each X,Y, or Z direction
	Operating environment	Prevention of dust, moisture, corrosion, electric shock and external shock
Structure	Dimensions	50mm*120mm*88mm (W*H*D)
	Material	ABC+PC(fire-retardant level: 94V0, compliant with ROHS)
	Installation	DIN rail mounting
Function	WiFi	802.11b/g/n
	Wireless network (optional)	4G
Software	Programming software	Haiwell Cloud SCADA

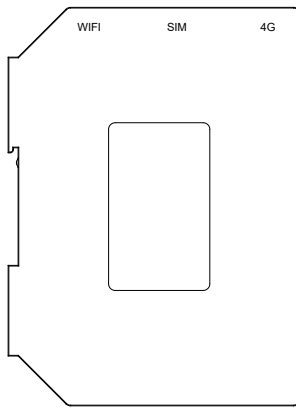
#### 4. Cloud Box software

- The cloud box needs to be used with the Haiwell SCADA software. Please download it via the download center of the official website: en.haiwell.com.
- Haiwell Cloud services can be used by visiting the Haiwell Cloud website <http://cloud.haiwell.com>, and it is recommended that you download Haiwell Cloud APP.
- Haiwell Cloud APP (Haiwell Cloud) download:
  - ① Login Haiwell cloud website to download;
  - ② Directly scan the QR code below to download;

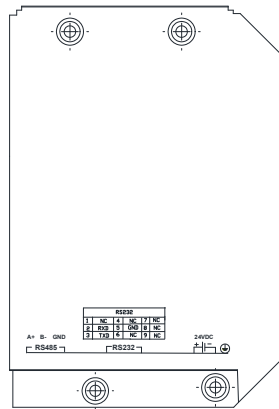


- ③ the IOS terminal can refer to the Apple App Store, search "Haiwell Cloud" and download.

#### 5. Appearance and interface diagram

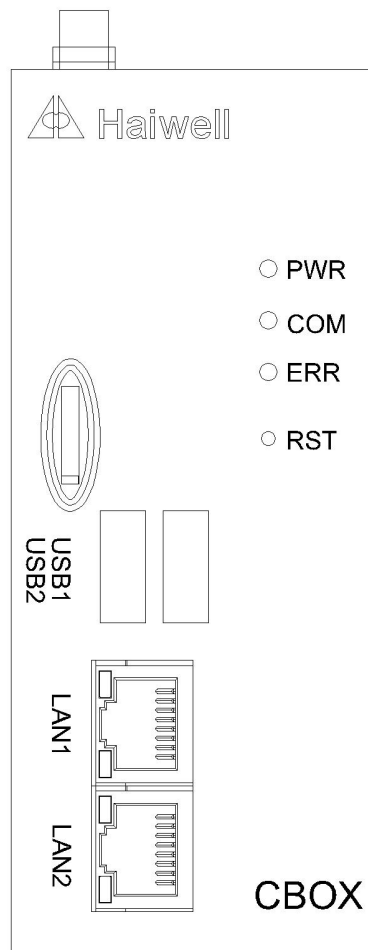


Left side sketch map of the Cloud Box Shell



Right side sketch map of the Cloud Box Shell

#### Cloud Box Interface sketch map:



#### COM1 DB9 Interface definition:

DB9 Interface definition:					
Pin	Definition	Pin	Definition	Pin	Definition
1	NC	4	NC	7	NC
2	RXD	5	GND	8	NC
3	TXD	6	NC	9	NC

## 6. Installation and operation

### 6.1 Hardware installation

#### 6.1.1 Notice

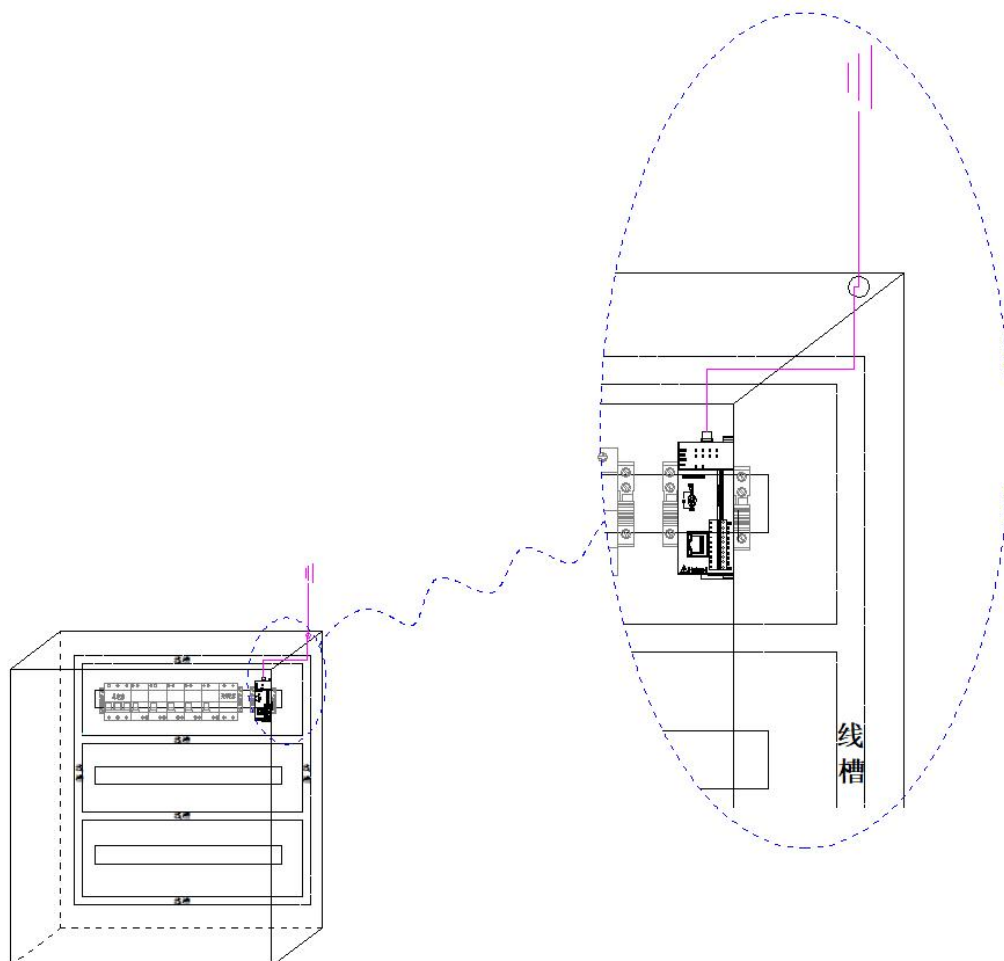
- ① Strictly follow the direction of installation marked on the terminal. Otherwise, there might be breakdowns or damage with HMI.
- ② There should be enough space between the bottom of HMI and other devices, which helps to avoid the damages caused by poor heat dissipation.

#### 6.1.2 Installation procedure

35mm DIN rail is required to mount Haiwell cloud box. Hook the cloud box onto the DIN rail and push up the latch to lock the device.

### 6.2 Antenna installation

4G are optional functions of Haiwell cloud box while WiFi is standard function. The antennas should be placed outside of the control cabinet in order to get better signal. It's recommended to place cloud box on the first row of control cabinet. After locking the antenna's connector to HMI, run the antenna cable through the cable slot and place the antenna on the top of cabinet, as shown below. Prevent the antenna cable in the same slot as the power cable.



### 6.3 Reset

To reset cloud box to factory setting, use these steps:

Press the reset button. If the button is good, you will hear a beep.

#### 6.3.1 Reset network settings

Reset the network settings and password of entering system setting.

Step: Press the reset button three times. After hearing a beep and three indicators flashing slow, the cloud box is successfully reset.

#### 6.3.2 Factory reset

Reset all system settings to defaults.

Step 1: Press and hold reset button for more than 5 seconds. When three indicators slowly flash, release the button and press it again.

Step 2: Hold reset button for more than 3 seconds. When three indicators fast flash, release the button. After hearing 3 beeps, the cloud box is successfully reset.