

MF0230 IoT Box 用户指南

User Guide for MF0230 IoT Box



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This manual guides you in setting up and using your MF0230 IoT Box. Information in this manual has been carefully checked for accuracy and is subject to change without notice.

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FCC Statement

FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction guide, 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 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.

FCC Caution: Any change or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example-use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

BATTERY CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Do not discard used batteries in to regular trash. These batteries need to be recycled according to the manufacturer's instructions.

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1. 简介 Introduction to MF0230 IoT Box

The MF0230 IoT Box is a compact, high-performance computer which is powered by NXP® i.MX6 Quad-core and embedded Niagara Framework®-based controller and server platform for connecting diverse devices or sub-systems.

MF0230 IoT Box streams data and graphical displays to a standard Web browser via an Ethernet or wireless LAN, or remotely over the Internet.

It provides integrated control, data logging, scheduling, supervision, and network management along with graphical displays Web-serving capability.

MF0230 IoT Box是一款紧凑型高性能计算机，采用恩智浦i.MX6四核以及基于 Niagara Framework®嵌入式控制器和服务器平台，可连接不同的设备或子系统。

MF0230物联网盒通过以太网或无线局域网将数据和图形显示流式传输到标准网络浏览器，或通过互联网远程传输。

它提供集成控制，数据记录，调度，监督和网络管理以及图形显示Web服务功能。

1.1 IoT Box Specification 规格

Following chart shows specification of the IoT Box device.

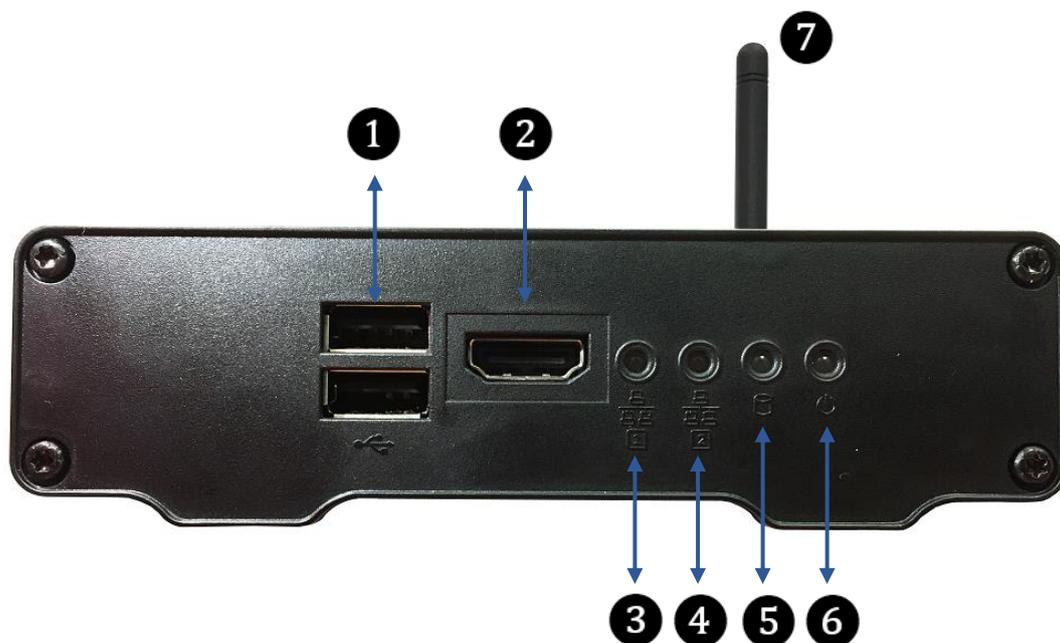
下图显示了IoT Box设备的规格。

MF0230 System Spec

Rev0.3_20171024

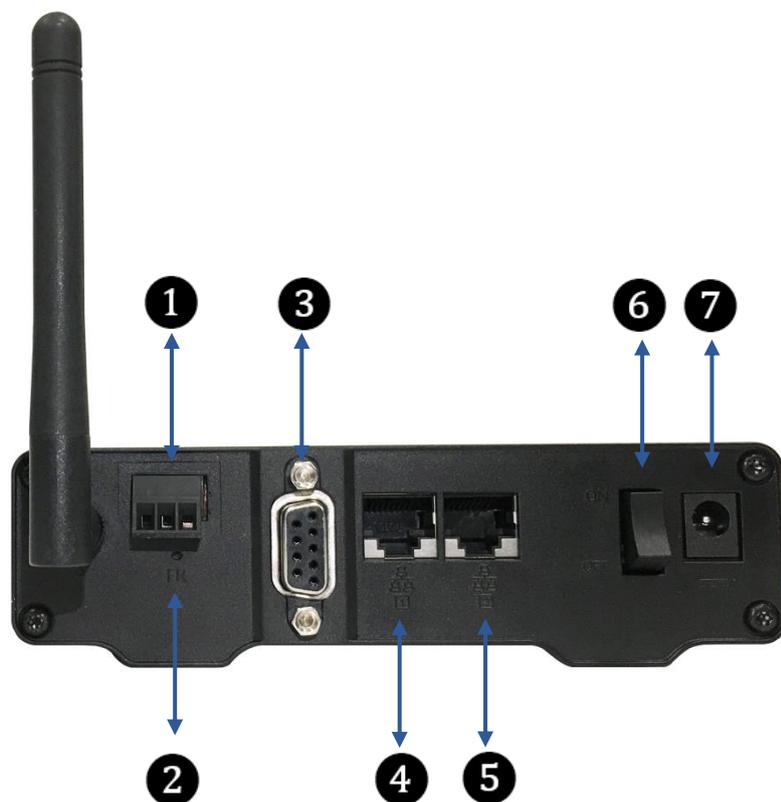
System Spec.		
CPU	NXP i.MX6 Series Application Processors: ARM, Cortex-A9 core NXP iMX6 Quad-Core @ 1.0Ghz	
Heat Dissipation	Fanless	
System RAM	Onboard DDR3 1GB	
Storage	Onboard eMMC storage:8GB	
I/O	HDMI	One (1) Full-Size HDMI
	USB	Two(2) STD USB 2.0
	UART	One(1), DB9: Tx, Rx, GND
	RS485 (option)	One(1) 3pin , 3.5mm
	LAN	Two(2) Gigabit LAN
WiFi / BT	802.11 b/g/n 2.4G Single-band 1*1 & Bluetooth 4.0 Combo	
Antenna	One(1) External, 2.4GMHz 2dBi	
LED Status Indicator	System power	One (1) System Power ON/OFF indicator
	LAN indicator	Two(2) LAN indicator Linked to network: Steady Green color Linked with transmission: Flashing Green color
Power	Power button	One(1) Switch ON/OFF
	Power	US DC 12V 2mA Switching Power Supply Adapter Wall Charger US-type Plug
	RTC	Support
Software Support	Linux Kernel 4.1.15	
Box dimension	131.2 (L) * 96 (W) * 34.9(H)mm	
Exterior appearance	Black color ; Sand blasting & Anodized finished	
Operating Temperature	0~60℃	
Storage Temperature	-40~80℃	

1.2 Front view of MF0230 IoT Box Device 正视图



1	USB Ports
2	HDMI-Out port
3	LED: Ethernet 1 activity indicator
4	LED: Ethernet 2 activity indicator
5	LED: Storage activity indicator (reserved)
6	LED: System Power On/Off
7	WiFi Antenna

1.3 Rear view of MF0230 IoT Box Device 后视图



1	RS485
2	FR : Factory Reset
3	UART (DB9)
4	Ethernet 1 port
5	Ethernet 2 port
6	Power On/Off Switch
7	Power Supply

1.4 MF0230 IoT LED Indicator 指示灯

Following chart shows how the LED light indicate the operations being performed on the IoT Box device.

下图显示了 LED 灯如何指示正在 IoT Box 设备上执行的操作。

No.	LED indicator 指示灯	Color-Status 颜色状态	Description 描述
1	LAN Link/ACT 网络连接/动作	Green: Steady Green 稳定的绿色	Linked to the network 链接到网络
		Green: Flashing Green 闪烁的绿色	Linked to the network with activity 链接到活动网络
		OFF 关闭	No connection 无连接
2	Storage (Reserved) 存储 (预设)	TBD 待定义	TBD 待定义
3	System Power 系统电源	Green: Steady Green 稳定的绿色	Power ON 打开电源
		OFF 关闭	Power OFF 关闭电源

2. Getting Started 入门指南

2.1 Power up 通电

1. Attach the provided antenna to the IoT Box device. Screw on antenna to the provided socket on the gateway. The antenna can be rotated and angled so it can be aligned in any installation position.
将提供的天线连接到 IoT Box 设备。将天线拧到网关上提供的插座上。天线可以旋转和倾斜，因此可以在任何安装位置对齐。
2. Attach the LAN wire to the IoT Box device for the wired connection.
将 LAN 线连接到 IoT Box 设备以进行有线连接。
3. Connect the provided power adaptor to the IoT Box.
将提供的电源适配器连接到 IoT Box。
4. Turn the power switch on, and then wait for about one minute to allow the IoT Box to fully boot itself.
打开电源开关，然后等待大约一分钟，让 IoT Box 自行完全启动。

2.2 Connect the IoT Box with Network 网络连接

IoT Box device can be connected through both wireless and wired networks.
IoT Box 设备可以通过无线和有线网络连接

2.2.1 有线网络 Wired: DHCP and Static

2.2.2 无线网络 Wireless: DHCP

