![Embedded Automation & Cloud Application]

EBox-AIO-006 Multi-I/O IoT-Application Controller

- ☑ **ARM® Cortex®-A7 64-bit multi-core RISC low power consumption**
- ☑ **5 VDC Working Power Input**
- ☑ **1-ch 100Mbps Ethernet Communication Interface**
- ☑ **1-ch RS-485 serial equipment data transmission communication**
- ☑ **Small size, wide application field**
- ☑ **With RTC Chip and Battery Holder**
- ☑ **With Simple Human Control Interface**
- ☑ **Embedded Linux Operating System**

Product Features

☒ ARM® Cortex®-A7 RISC low power consumption architecture, high stability

EBox-AIO-006 adopts 1.2-GHz ARM Cortex®-A7 64-Bit 4-core RISC Processor, with 256MB DDR3 SDRAM、16GB MicroSD as system core，With built-in 4.14.x embedded Linux operating system，it is suitable for low power consumption and high communication performance requirements for industrial automation applications。

☒ Multifunctional communication

EBox-AIO-006 has 1 set of Ethernet interfaces and 802.11 Wi-Fi or 3/4G wireless network interface expandable via USB interface to make network communication seamless。

EBox-AIO-006 has 1 set of 115.2Kbps high-speed RS-485 serial port interface with ability to connect 128 multi-drop nodes, allowing EBox-AIO-006 to easily connect all kinds of monitoring equipment and meters。

☒ Simple and easy human machine interface

EBox-AIO-006 includes a DIP Switch input determining function, and simple sound and light effects such as LED and Beeper that can be controlled by process, allowing developers to set system operation mode and display system operation in the simplest way.

☒ Suitable for database and webpage monitoring applications

EBox-AIO-006 has built-in MySQL Database and various Web server such as Apache2 for users to set up、record and exchange status message via database framework。 It can also work with common PHP/Java Script to easily accomplish remote monitoring system development。

☒ Suitable for various High-level programming language

With built-in Linux 4.14.x embedded Linux operating system，EBox-AIO-006 supports the most recent popular High-level programming language, such as Python、Java，Scratch，Node J…etc，allowing developers to set up or porting applications in EBox-AIO-006 rapidly。It also supports traditional C/C++ programs for those applications need to process lower level and higher speed I/O action or response。

☒ Small size, wide application field

EBox-AIO-006 is small and less than 80mm in size with its wall-mounted and rail-mounted mechanism design, which can be installed in various application fields.

Exterior schematic diagram

(Top View)

(Lateral View)

連立達科技
LLD Technology Co., Ltd.
Embedded Automation & Cloud Application
www.lld-tech.com   www.embedded-box.com.tw

Product specifications

Hardware

Core

▷ CPU：Allwinner H3 1.2GHz (Cortex®-A7)

▷ Memory：256MB DDR3 SDRAM、16GB (MicroSD)

Network Interface

▷ Quantity：1 Set

▷ Type：10/100BaseT Ethernet

▷ Connector：RJ45

RS-485 Serial Interface

▷ Quantity：1

▷ RS-485 Signal：Data+, Data-, GND
　　　　　　　　(Support Auto Data Direction Control)

▷ Multi-Drop Nodes：128 (1/4 Load)

▷ Built-in Terminal Resistor：120Ω · By Jumper

▷ Pull High/Low Resistor：1KΩ

▷ Protection：15KV ESD static protection, 400W Surge Protection

▷ Connector：5.00mm Pluggable Terminal block

Serial Communication Parameters

▷ Baud Rate：300 ~115,200 bps

▷ Parity：None, Even, Odd, Mark, Space

▷ Data Bits：5, 6, 7, 8

▷ Stop Bit：1, 1.5, 2 bits

Console Interface

▷ Quantity：1

▷ Signal：UART-TTL (TxD, RxD, GND)

▷ Connector：3-pin 2.54 mm contact

USB Interface

▷ Quantity：1 Set

▷ Type：USB 2.0

▷ Connector：Single (Type A)

SD Expansion Interface

▷ Quantity：1 Set (need to open the case)

▷ Connector：Micro SD Slot

Digital Control (GPIO)

▷ Points：4

▷ Signal Type：3.3V CMOS

▷ DIP Switch x 2 GPIO

▷ Beeper x 1 GPIO

▷ LED x 1 GPIO

Human Interface

▷ LED：Power, Network, Serial port

▷ Buzzer：1

Mechanism

▷ Size：75 x 75 x 26 mm (incl. fix boarder)

▷ Material：galvanized steel sheet

Power

▷ Working Voltage：DC 5 VDC

▷ Power Connector：5.00mm pluggable terminal block

▷ Power Consumption：< 10W (not include USB device)

Others

▷ Real Time Clock (RTC) : 1

▷ Real Time Clock Battery Holder : CR1220

▷ Applicable temperature：-20~70□

▷ Applicable humidity：20%~80% RHG

▷ Certification：CE, FCC

Software

Core

▷ OS: Linux kernel 4.14.x

Pre-Installed Services

▷ SSH terminal server, ftp server, Python, gcc, g++, apt-get, lld-IP searched

Purchasing Information

▷ **EBox-AIO-006**　　　Multi-I/O IoT-Application Controller

　　　　　　　　　　Content： EBox-AIO-006 · QIG x 1

Optional Accessories

▷ **CD05V**　　　100~240V AC to 5 VDC-1A Power Adapter (US Type)

▷ **DK-A01**　　　3-fix points aluminum DIN-Rail Kit

▷ **DK-P01**　　　Plastic DIN-Rail Kit