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I-8431-80/I-8831-80
I-843180-G/I-8831-80-G
Ethernet embedded controller

Model: I-8431-80

Model: I-8831-80

Model:I-8431-80-G

Model:I-8831-80-G
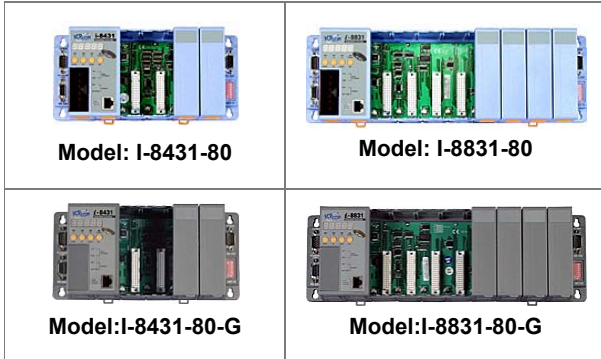
Manual

Software

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中文

Introduction

The I-8431-80/ I-8831-80 are ethernet embedded controller with 4/8 I/O slots. Both are equipped with MiniOS7,an embedded OS similar to DOS that is developed by ICPDAS Co., LTD.

The MiniOS7 can boot up in a very short time (0.4~0.8 second).It has built-in hardware diagnostic function, and supports the full functions to access all 8K and 87K series I/O modules, such as DI, DO, DIO, AI, AO, Counter/Frequency, motion modules etc.

To simplify the TCP/IP program developing process, we designed a XServer architecture. It is a reliable, opened, expandable, all purposed,and easily to be used library. The Xserver implements 90% functionalities of Ethernet communication. Refer the rich demo programs we provided, software engineer can easily finish the 10% remaining funtionalities and greatly shorten the developing time.

The I-8431-80/I-8831-80 are equipped an ethernet port and their back planes are equipped three serial COM Port, they include RS-232 and RS-485 ports and can be used in remote data acquisition and control applications, including environment monitoring, power management and factory automation. By using S-256 (256 KBytes) or S-512 (512 KBytes)battery backup SRAM, they provide data logger storage function.

Note: S256 and S512 are optional accessories.

Features

Provide multi Serial Port interface on back plane.
COM1: RS-232
COM3: RS-232/RS-485
COM4: RS-232

The built-in watchdog circuit will reset the CPU module if a failure occurs in either the hardware or software, allowing the controller system more reliable and stable in harsh and noisy environments.

Dual Bus designed to supports I-8K and I-87K series I/O modules, such as DI/DO, AI/AO, Counter/Frequency modules
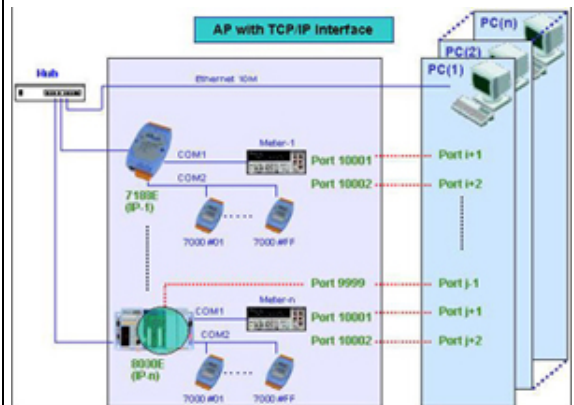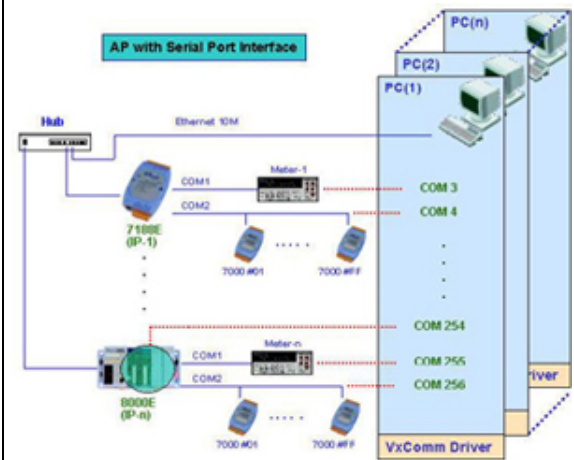
Compact I/O Expansion slot allows the quick installation of various 8K and 87K I/O module

The XServer architecture greatly simplify the programming of TCP/IP protocol.
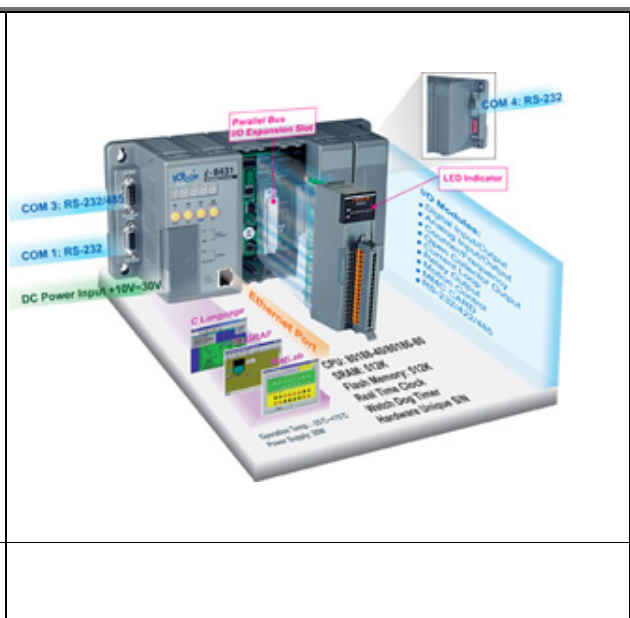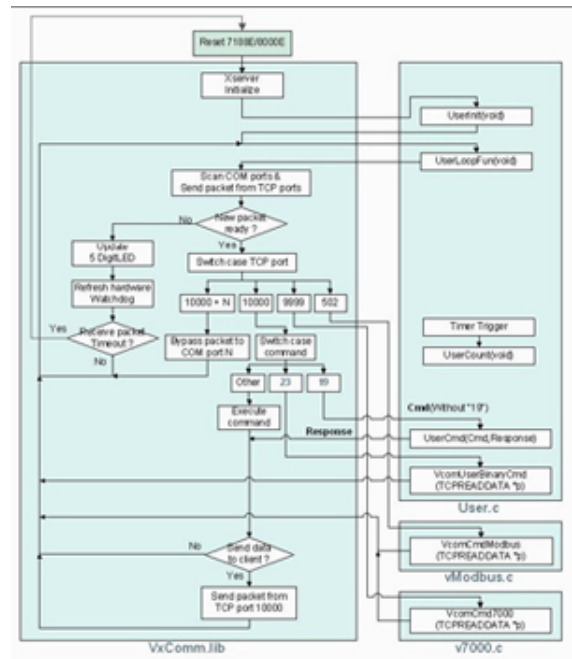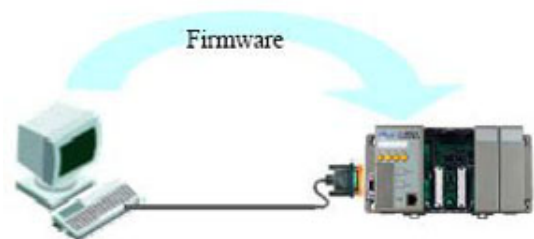
Supports the VxComm technique for all ports (Serial Port and Ethernet Port).

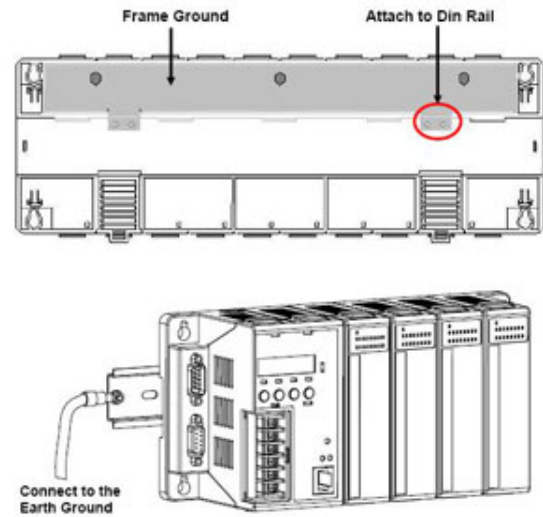Firmware updated via the RS-232 port

Ventilated housing designed to operate between –25°C to +75°C

Using DIN rail clips or Screw poles around the corners allows the control unit to be easily mounted on the control box

Frame Ground provides a path for bypassing ESD, allowing enhanced static protection (ESD) capability and ensures that the module is more reliable.

Equipped with MiniOS7, an embedded OS similar to DOS that is developed by ICP DAS Co., LTD.

Provides full C library functions such as 8K, 87K I/O, 7-segment LED, RTC (real time clock), EEPROM etc.

Specifications

CPU module	
CPU	80186 or compatible (16-bit and 80MHz)
SRAM	512KBytes
Flash	512KBytes
EEPROM	2KBytes
NVRAM	Yes
RTC (real time clock)	Yes
Hardware Serial Number	-
Built-in Watchdog Timer	Yes
Communicate Interface	
COM 0	Internal communication with the 87K modules
COM 1	RS-232 (to update firmware)
COM 2	-
COM 3	RS-232/RS-485
COM 4	RS-232
Ethernet Port	10BaseT NE2000 compatible
SMMI	
5 - Digit LED Display	Yes
3 - Programmable LED Indicators	Yes
4 - Push Buttons	Yes
I/O expansion slots	
8431-80	4 Slots
8831-80	8 Slots
Dimensions	
8431-80	230mm x 110mm x 75.5mm
8831-80	354mm x 110mm x 75.5mm
Operating Environment	
Operating Temperature	-25°C to +75°C
Storage Temperature	-30°C to +85°C
Humidity	5 to 95% RH, non-condensing
Power	
Protection	Power reverse polarity protection
3KV power isolation	-
Power requirement	10 ~ 30 V/DC
Power supply	20W
Power consumption	I-8431-80 : 3.9 W
	I-8831-80 : 5.1 W

Ordering information

I-8431-80	I-8431-80 Embedded Controller
I-8831-80	I-8831-80 Embedded Controller
I-8431-80-G	I-8431-80 Embedded Controller with gray color
I-8831-80-G	I-8431-80 Embedded Controller with gray color

Accessories

S256	**256K** battery backup SRAM module
S512	**512K** battery backup SRAM module
KA-52F	AC100~250V input, DC 24V/1A output, flat type power supply
DIN-KA52F	KA-52F with DIN-Rail mount
DP-665	AC 85 ~ 270 V input, DC 24V/1.7A and 5V/0.5A output power supply
DP-660	24V/1.7A 5V/0.5A Power Supply
DP-1200	24V/5A Power Supply