

I-8431/I-8831
I-8431-80/I-8831-80

4/8-slot Ethernet Embedded Controller with 80188-40/ 80186-80 CPU and MiniOS7

Features

- 80186/80188 or compatible (16/8-bit and 80/40 MHz)
- MiniOS7 Embedded Operating System (DOS-like)
- 64-bit Hardware Serial Number for Software Protection
- Built-in Watchdog Timer
- 3 Serial Ports and 1 Ethernet Port
- Input Protection Circuitry
- Operating Temperature: -25 ~ +75 °C

Introduction

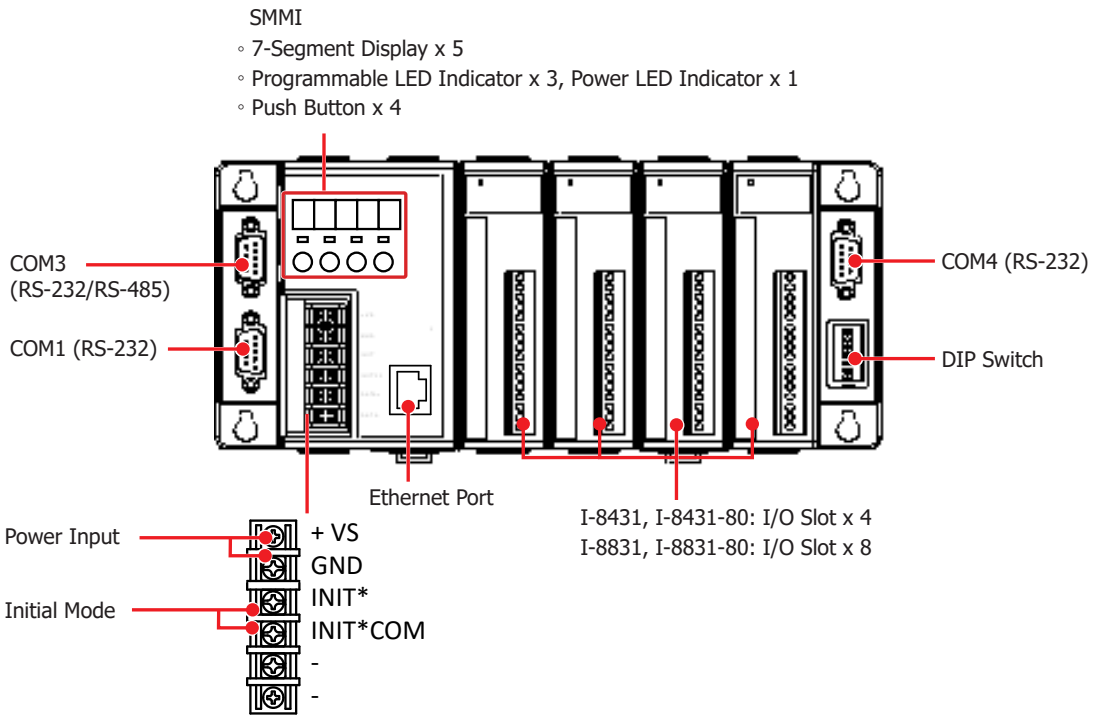
The I-8431/ I-8831/I-8431-80/I-8831-80 is an Ethernet embedded controllers with 4/8 I/O slots. Both are equipped with MiniOS7,an embedded OS similar to DOS that is developed by ICPDAS Co., LTD. The MiniOS7 can boot up in a very short time (0.4 ~ 0.8 second). It has built-in hardware diagnostic function, 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/ I-8831/I-8431-80/I-8831-80 is equipped with an ethernet port, and their backplane is equipped with 3 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. (S256 and S512 are optional accessories)

Apparances



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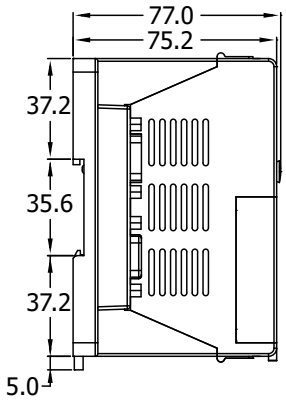
Specifications

Models	I-8431	I-8831	I-8431-80	I-8831-80
Software				
OS	MiniOS7			
Development	C Language			
CPU Module				
CPU	80188 or compatible, 8-bit and 40 MHz		80186 or compatible, 16-bit and 80 MHz	
SRAM	512 KB			
Flash	512 KB			
EEPROM	2 KB			
NVRAM	31 bytes (battery backup, data valid up to 5 years)			
RTC (Real Time Clock)	Provide second, minute, hour, date, day of week, month, year			
64-bit Hardware Serial Number	Yes			
Watchdog Timer	Yes			
DIP Switch	8-bit for address			
Communicate Interface				
Ethernet	1 x RJ-45, 10Base NE2000 compatible			
COM0	Internal communication with the 87K modules			
COM1	RS-232 (RxD, TxD, GND; to update firmware)			
COM2	-			
COM3	RS-232/RS-485 (RS-232: RxD, TxD, CTS, RTS, GND; RS-485: Data+, Data)			
COM4	RS-232 (RxD, TxD, CTS, RTS, DSR, DTR, CD, RI, GND)			
SMMI				
7-Segment Display	5			
LED Indicator	1 x Power, 3 x Programmable			
Push Button	4			
I/O Expansion				
I/O Type	I-8K, I-87K series			
Slots	4	8	4	8
Mechanical				
Dimension (W x L x H, unit: mm)	231 x 110 x 77	355 x 110 x 77	231 x 110 x 77	355 x 110 x 77
Installation	DIN-Rail, Wall mounting			
Environmental				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-30 ~ +85 °C			
Humidity	5 ~ 95 % RH, Non-condensing			
Power				
Protection	Power reverse polarity protection			
Input Range	+10 ~ 30 VDC			
Power Supply	20 W			
Consumption	3.9 W	5.1 W	3.9 W	5.1 W

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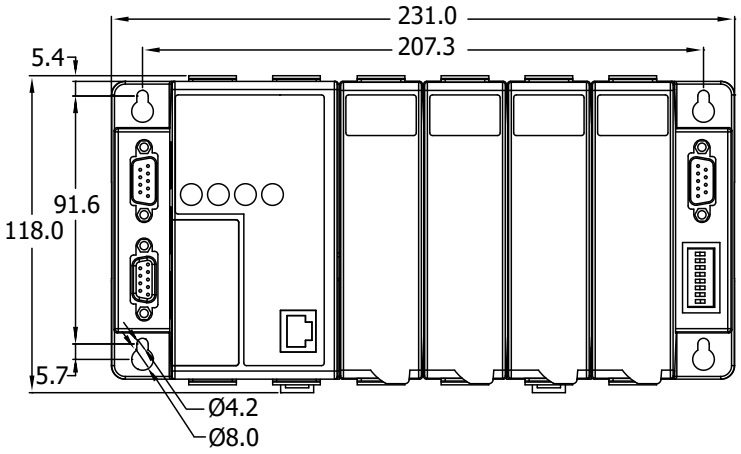
Dimensions (Units: mm)

I-8431/I-8831/I-8431-80/I-8831-80



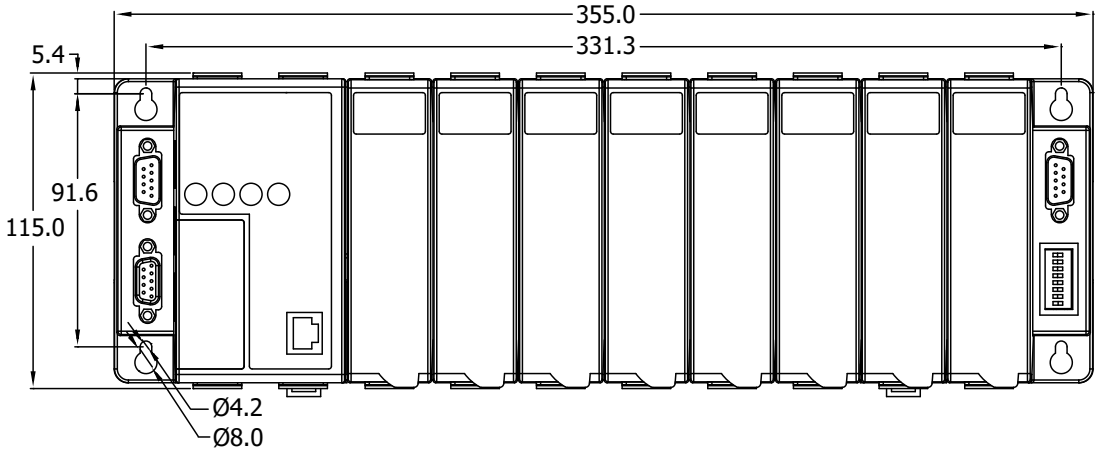
Left Side View

I-8431/I-8431-80



Front View

I-8831/I-8831-80



Front View

Ordering Information

I-8431 CR	4-slot Ethernet Embedded Controller with 80188-40 CPU and MiniOS7 (Blue Cover) (RoHS)
I-8831 CR	8-slot Ethernet Embedded Controller with 80188-40 CPU and MiniOS7 (Blue Cover) (RoHS)
I-8431-G CR	4-slot Ethernet Embedded Controller with 80188-40 CPU and MiniOS7 (Gray Cover) (RoHS)
I-8831-G CR	8-slot Ethernet Embedded Controller with 80188-40 CPU and MiniOS7 (Gray Cover) (RoHS)
I-8431-80 CR	4-slot Ethernet Embedded Controller with 80186-80 CPU and MiniOS7 (Blue Cover) (RoHS)
I-8831-80 CR	8-slot Ethernet Embedded Controller with 80186-80 CPU and MiniOS7 (Blue Cover) (RoHS)
I-8431-80-G CR	4-slot Ethernet Embedded Controller with 80186-80 CPU and MiniOS7 (Gray Cover) (RoHS)
I-8831-80-G CR	8-slot Ethernet Embedded Controller with 80186-80 CPU and MiniOS7 (Gray Cover) (RoHS)

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