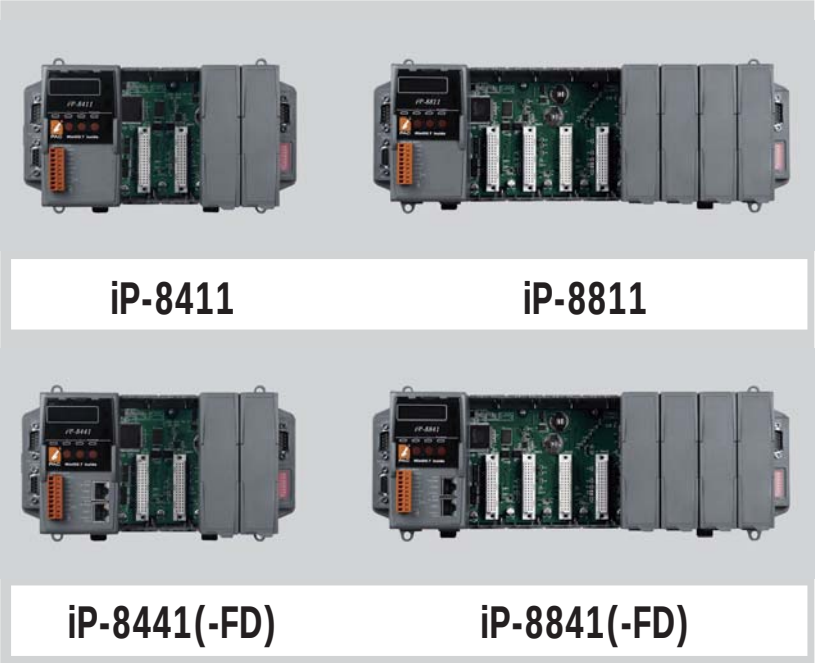


Highlight Information

- Compact and Rugged PAC
- 80186, 80 MHz CPU (16 bits)
- C Language Based and MiniOS7 Inside
- 64-bit Hardware Serial Number for Software Protection
- 4/8 Slots for High Profile I/O Modules
- Dual 10/100M Ethernet Ports
- 4 Serial Ports (RS-232/485)
- Operating Temperature: -25 ~ +75 °C

Introduction

The iPAC-8000 is the compact size PAC(Programmable Automation Controller). It supports various connectivity including Dual 10/100 Base-TX Ethernet ports, one RS-232/485 port, one RS-485 port and two RS-232 ports , and 4/8 slots for high performance Parallel-type I/O modules (High profile I-8K series) and Serial-type I/O modules (High profile I-87K series), etc.

The iPAC-8000 is designed for industrial monitoring, measurement and controlling. It has redundant power inputs with 1 kV isolation from noise and surges, and a wide range of operating temperature (-25 ~ +75 °C). It can work in the harsh and rough environment.

Features

Software

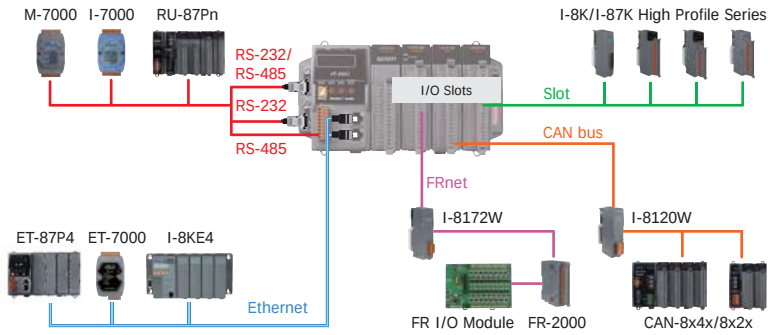
- MiniOS7 Embedded Operating System (DOS-like)
- Support VxComm Technique
- Redundant Ethernet Communication
- Xserver Development Template to Simplify TCP/IP Application
- Slave I/O Firmware Options (DCON or Modbus/TCP)
- Hardware Diagnostic Functions
- Load Files Via RS-232 or Ethernet
- SNMP slave library

Hardware

- 80186, 80 MHz CPU
- 64-bit Hardware Serial Number for Software Protection
- Dual Battery Backup SRAM (512 KB)
- Support I/O Module Hot Swap
- Rich I/O Expansion Ability
- Dual Ethernet Ports
- Redundant Power Inputs
- DIN-Rail or Wall Mounting
- Operating Temperature: -25 ~ +75 °C

Applications

Rich I/O Expansion Ability

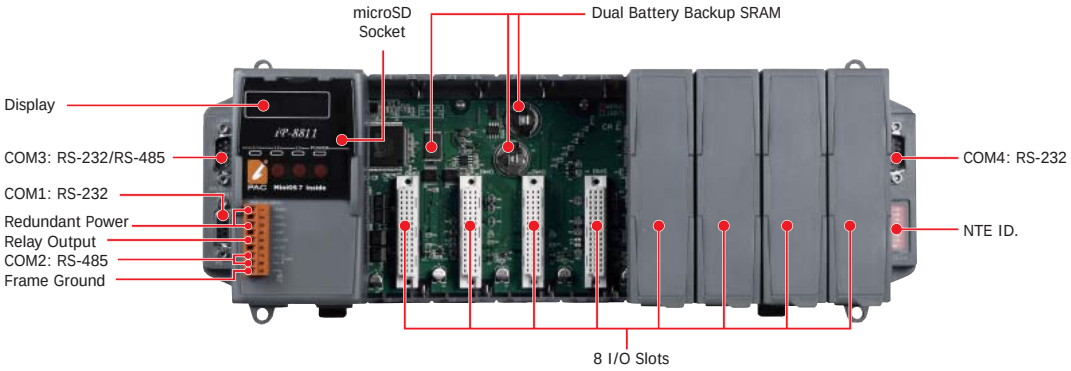


Specifications

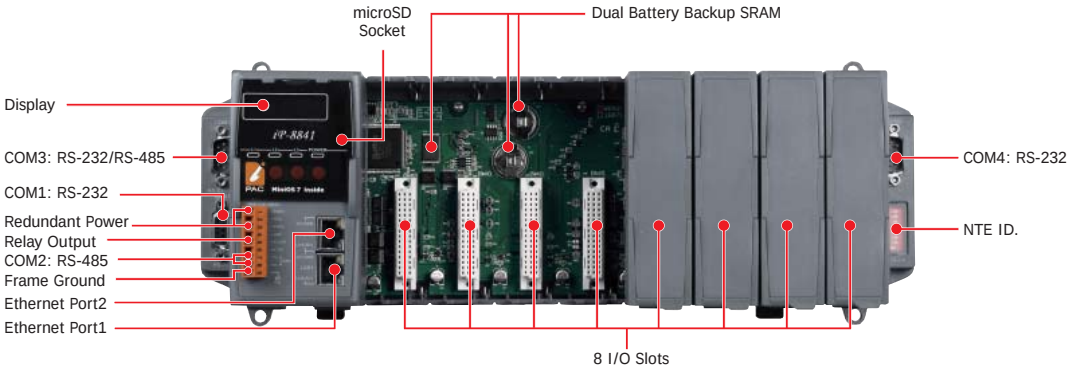
Models	iP-8411	iP-8441	iP-8441-FD	iP-8811	iP-8841	iP-8841-FD
System Software						
OS	MiniOS7 (DOS-like embedded operating system)					
Program Download Interface	RS-232 (COM1) or Ethernet					
Programming Language	C language					
Compilers to create.exe Files	TC++ 1.01 (Freeware) TC 2.01 (Freeware) BC++3.1 ~ 5.2x MSC 6.0 MSVC++ (before version 1.5.2)					
CPU Module						
CPU	80186 or compatible (16-bit and 80 MHz)					
SRAM	512 KB	768 KB		512 KB	768 KB	
Flash	512 KB (100,000 erase/write cycles) with Flash protection switch					
Expansion Flash Memory	microSD socket (can support 1/2 GB microSD)					
64 MB NAND Flash Disk	-	-	Yes	-	-	Yes
Dual Battery Backup SRAM	512 KB (for 5 years data rretention)					
EEPROM	16 KB					
	Data Retention: 40 years; 1,000,000 erase/write cycles					
NVRAM	31 bytes (battery backup, data valid up to 5 year					
RTC (Real Time Clock)	Provide second, minute, hour, date, day of week, month, year					
64-bit Hardware Serial Number	Yes					
Watchdog Timers	Yes (0.8 second)					
NET ID	8-pin DIP switch to assign NET ID as 1 ~ 255					
Communication Ports						
Ethernet	-	RJ-45 x 2, 10/100 Base-TX (Auto negotiating, Auto MDI/MDI-X, LED indicators)		-	RJ-45 x 2, 10/100 Base-TX (Auto negotiating, Auto MDI/MDI-X, LED indicators)	
COM 0	Internal communication with the high profile I-87K series modules in slots					
COM 1	RS-232 (to update firmware) (RxD, TxD and GND); non-isolated					
COM 2 RS-485	D2+, D2-; self-tuner ASIC inside					
COM 2 Isolation	3000 V_{DC}					
COM 3	RS-232/RS-485 (RxD, TxD, CTS, RTS and GND for RS-232, Data+ and Data- for RS-485); non-isolated					
COM 4	RS-232 (RxD, TxD, CTS, RTS, DSR, DTR, CD, RI and GND); non-isolated					
SMMI						
5-Digit LED Display	Yes					
3-Programmable LED Indicators	Yes					
4-Push Buttons	Yes					
Buzzer	-	Yes	Yes	-	Yes	Yes
I/O Expansion Slots						
Slot Number	4			8		
	(For High Profile I-8K and I-87K Modules Only)					
Hot Swap * Will be available	For High Profile I-87K Modules Only					
Data Bus	8/16 bits					
Address Bus Range	2 K for each slot					
Mechanical						
Dimensions (W x L x H)	231 mm x 132 mm x 111 mm			355 mm x 132 mm x 111 mm		
Installation	DIN-Rail or Wall Mounting					
Environmental						
Operating Temperature	-25 ~ +75 °C					
Storage Temperature	-30 ~ +80 °C					
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)					
Power						
Input Range	+10 ~ +30 V_{DC}					
Isolation	1 kV					
Redundant Power Inputs	Yes, with one power relay (1 A @ 24 V_{DC}) for alarm					
Capacity	0.85 A, 5 V supply to CPU and backplane, 5.51 A, 5 V supply to I/O expansion slots, 30 W in total			0.9 A, 5 V supply to CPU and backplane, 5.1 A, 5 V supply to I/O expansion slots, 30 W in total		
Consumption	6.7 W (0.28 A @ 24 V_{DC})			7.2 W (0.3 A @ 24 V_{DC})		

Appearance

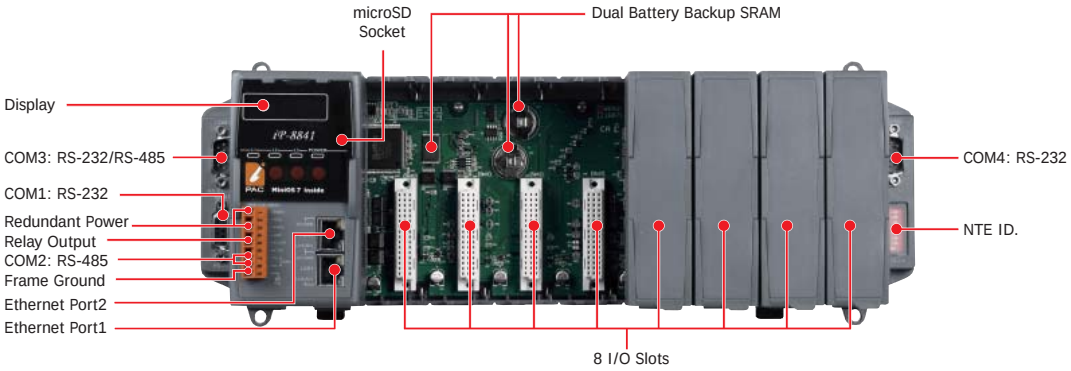
iP-8811



iP-8841

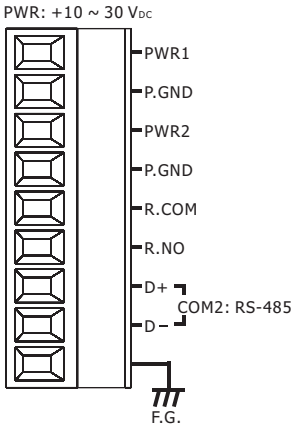


iP-8841-FD

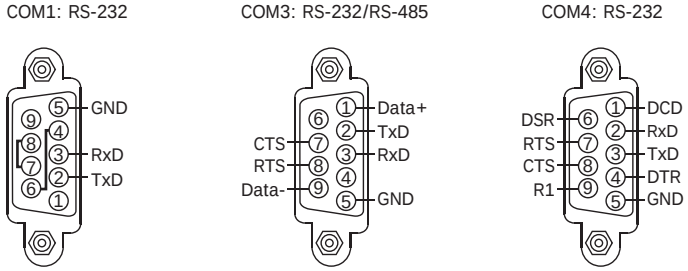


Pin Assignments

Terminal Block

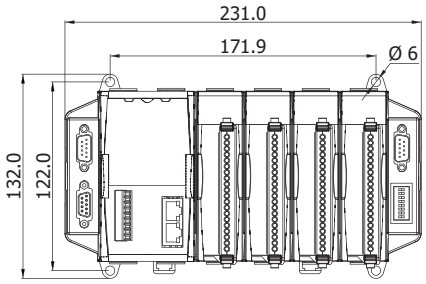


COM Port

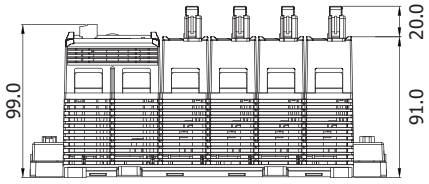


Dimensions (Unit: mm)

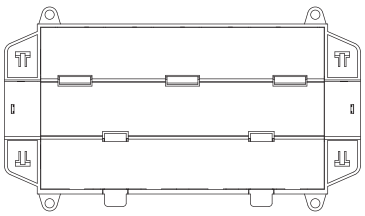
iP-8411/8441/8441-FD



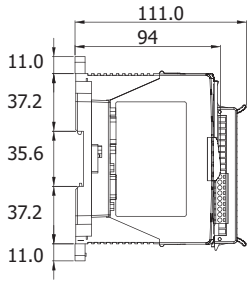
Front View



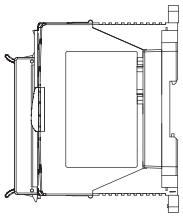
Bottom View



Back View

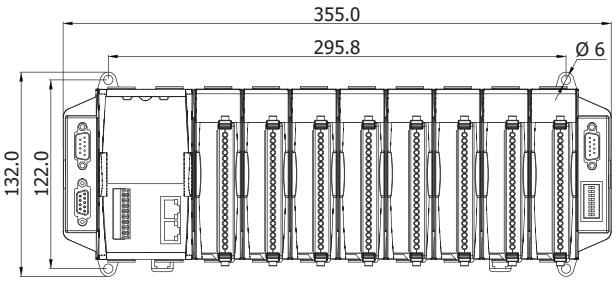


Left Side View

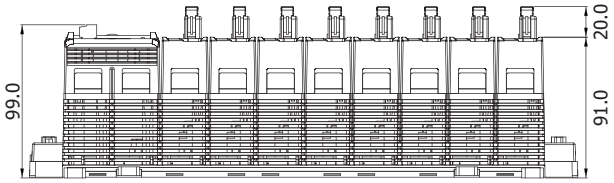


Right Side View

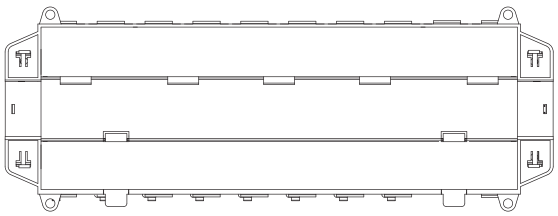
iP-8811/8841/8841-FD



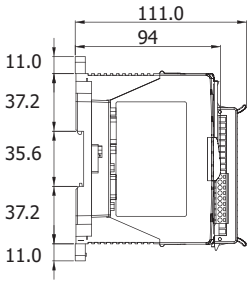
Front View



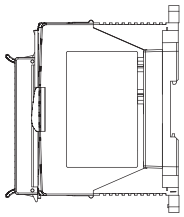
Bottom View



Back View



Left Side View



Right Side View

Ordering Information

iP-8411 CR	Standard iPAC-8000 without Ethernet ports (RoHS)
iP-8811 CR	Standard iPAC-8000 without Ethernet ports (RoHS)
iP-8441 CR	Standard iPAC-8000 with 4 I/O Slots (RoHS)
iP-8841 CR	Standard iPAC-8000 with 8 I/O Slots (RoHS)
iP-8441-FD CR	Standard iPAC-8000 with 64 MB Flash (RoHS)
iP-8841-FD CR	Standard iPAC-8000 with 64 MB Flash (RoHS)

Accessories

DP-660	24 V_{DC}/2.5 A, 60 W and 5 V_{DC}/0.5 A, 2.5 W Power Supply with DIN-Rail Mounting
DP-665	24 V_{DC}/2.7 A, 65 W Power Supply with DIN-Rail Mounting
DP-1200	24 V_{DC}/5.0 A, 120 W Power Supply with DIN-Rail Mounting
MDR-20-24	24 V_{DC}/1.0 A, 24 W Power Supply with DIN-Rail Mounting
I-7560 CR	USB to RS-232 Converter (RoHS)
3LMSD-2000	2 GB microSD card