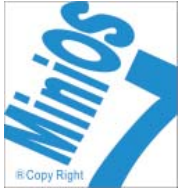


2.5. iPAC-8000 Series

2

Compact PAC

• Overview



The iPAC-8000 is a family of compact, modular, intelligent and rugged, distributed PAC designed for data acquisition and control in manufacturing, research and education.

This new exciting series offers a flexible, versatile, and economical solution to a wide range of applications from Data-Acquisition, process control, test & measurement, to energy & building management.

The iPAC-8000 is a modular network-based PAC with the capability

of connecting I/O either through its own dual backplane bus or alternatively through remote I/O units and remote I/O modules. The unit comprises a main control unit with a range of standard communication interfaces, and a dual backplane bus permitting I/O expansion.

The dual backplane bus is hybrid in nature providing the facility to connect either serial or parallel I/O modules. The parallel bus is used for high speed data transfer.

The unit can communicate using serial communications (RS-232, RS-485), Ethernet, CAN bus or FRnet. The Ethernet version of the product supports an integrated web server permitting Internet and Intranet applications.

The iPAC-8000 can be used as an intelligent distributed data acquisition front end connected to a host machine running a standard SCADA package, or alternatively. It can be programmed as an autonomous controller running an embedded software application. Significant non-volatile memory is available for data and program storage.

Main Components:

5

iPAC-8000 Series

1 Main Control Unit (MCU)

The MCU is the power house of the iPAC-8000. Each MCU comprises a central processor module (CPM), a power supply, a four (4) or eight (8) slot backplane for either 4 or 8 Parallel I/O modules. The CPM is a powerful integrated processing engine comprising a CPU, RAM and ROM, and an option of communication interfaces including RS-485, Ethernet, FRnet and CAN bus.

3 Embedded OS

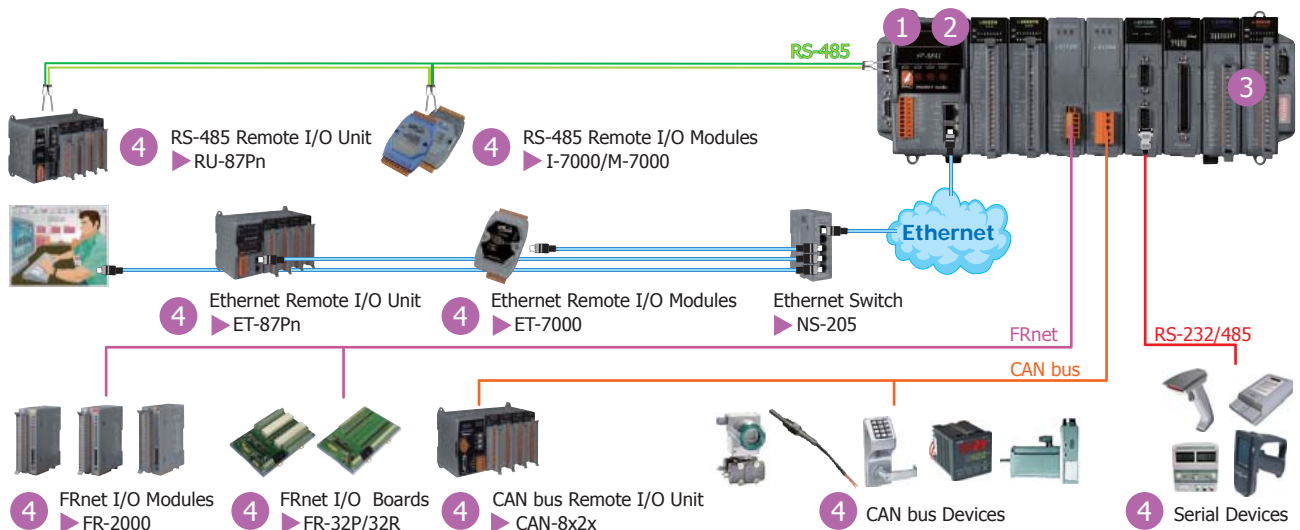
All iPAC is equipped MiniOS7 embedded OS. It is developed by ICP DAS Co., Ltd and compatible to DOS. MiniOS7 has more features than regular DOS in embedded applications, such as shorter boot time, built-in hardware diagnostic function, directly support I-8000 and I-7000 modules without library, and directly support Micro SD and Flash disk.

2 I/O Modules

There are two types of I/O modules, Parallel and Serial. The Parallel I/O modules (I-8K high profile series) are high-speed modules and have to be installed in slots of the iPAC. The Serial I/O modules (I-87K high profile series) can be installed in slots or Expansion Units (RU-87Pn).

4 Remote I/O Expansion

The iPAC-8000 uses built-in RS-485 and Ethernet ports to connect RS-485/Ethernet remote I/O units (Ru-87Pn/ET-87Pn) or modules (I-7000/M-7000/ET-7000). In this configuration, iPAC expands the I/O very easily. Using CAN or FRnet communication module, iPAC can connect CAN bus devices, remote I/O units or FRnet I/O modules for deterministic control system.



• Selection Guide

iP-8



NO. of I/O Slot



Hardware
1: Without Ethernet
4: Ethernet x 2



Software
1: Standard
7: ISaGRAF

-



Flash Disk
FD: 64 MB Flash Disk



Standard iPAC

Model Name	OS	Pre-installed Software	CPU	Flash	64 MB Flash Disk	SRAM	Ethernet Port	RS-232/RS-485	I/O Slot	Power Consumption	Page
iP-8411	MiniOS7	None	80 MHz	512 KB	-	512 KB	-	4	4	6.7 W	2-5-3
iP-8811						8	7.2 W				
iP-8441						4	6.7 W				
iP-8841					768 KB	2 (10/100 BaseTx)	8		7.2 W		
iP-8441-FD					4	6.7 W					
iP-8841-FD					Yes	8	7.2 W				

The controller is equipped with a DOS-like OS, i.e. MiniOS7. Users can use C compilers to develop a program in 16 bit executable file (*.exe), then download it to the controller. Two free-of-charge version compilers, i.e. Turbo C 2.0 and Turbo C++ 1.01, are available, the Turbo C++ 1.01 is recommended.

There are many demo programs. For TCP/IP programming, ICP DAS provides a TCP/IP server template XServer which is a very powerful, easy-to-use and flexible tool saving 90% development time.



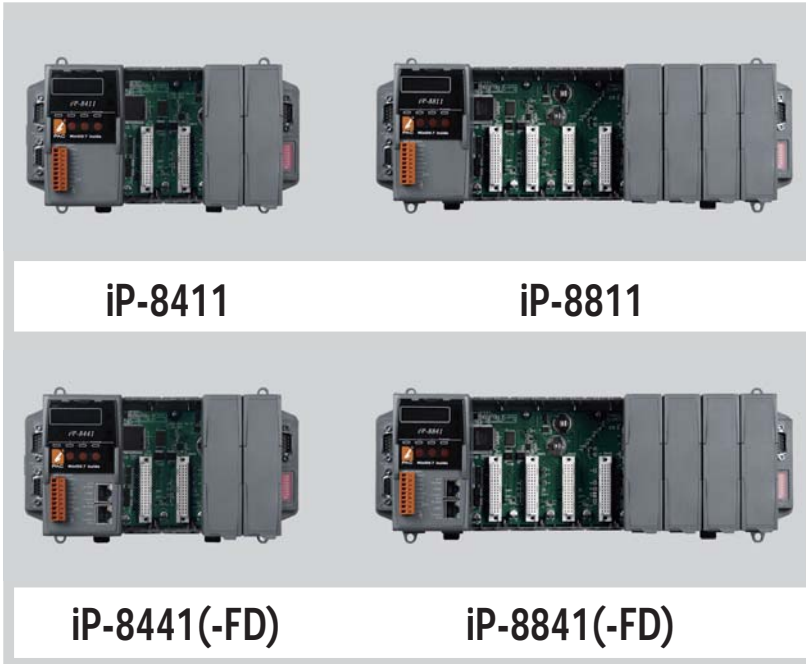
ISaGRAF Based iPAC

Model Name	OS	Pre-installed Software	CPU	Flash	64 MB Flash Disk	SRAM	Ethernet Port	RS-232/RS-485	I/O Slot	Power Consumption	Page
iP-8417	MiniOS7	ISaGRAF	80 MHz	512 KB	-	512 KB	-	4	4	6.7 W	2-5-7
iP-8817						8	7.2 W				
iP-8447						768 KB	2 (10/100 BaseTx)		4	6.7 W	
iP-8847						8	7.2 W				

The controller fully supports all five of the IEC61131-3 standard PLC languages:

1. Ladder diagram,
2. Function block diagram,
3. Sequential function chart,
4. Structured text,
5. Instruction List plus flow chart.

It supports Modbus protocol and can link to distributed I/O modules with Modbus or DCON protocol via the RS-232/485 or Ethernet.



Highlight Information

- Compact and Rugged PAC
- 80186, 80 MHz CPU (16 bits)
- C Language Based and MiniOS7 Inside
- 64-bit Hardware Serial Number
- 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 I/O modules (high profile I-8K series) and Serial 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

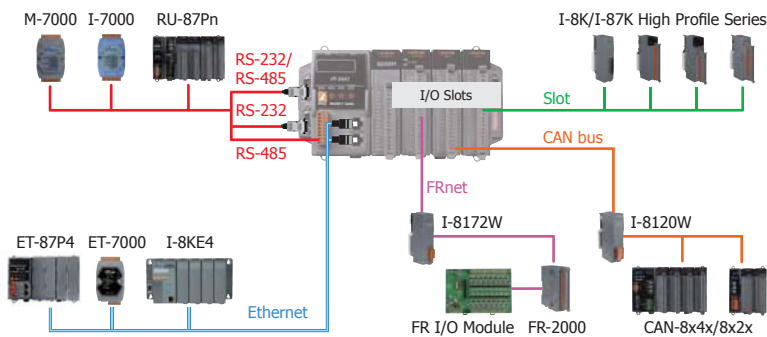
- MiniOS7 Embedded Operating System (DOS-like)
- Support VxComm Technique
- Redundant Ethernet Communication
- Xserver Development Template to Simplify TCP/IP Application
- Slave I/O Firmware Options (DCON or Modbus/TCP)
- Hardware Diagnostic Functions
- Load Files Via RS-232 or Ethernet
- SNMP slave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

Hardware

- 80186, 80 MHz CPU
- 64-bit Hardware Serial Number
- 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 retain while power off)					
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, for Software Copy Protection					
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) (Rx/D, Tx/D and GND); non-isolated					
COM 2	RS-485	D2+, D2-; self-tuner ASIC inside				
	Isolation	3000 V _{dc}				
COM 3	RS-232/RS-485 (Rx/D, Tx/D, CTS, RTS and GND for RS-232, Data+ and Data- for RS-485); non-isolated					
COM 4	RS-232 (Rx/D, Tx/D, 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})		

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Compact PAC

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iPAC-8000 Series

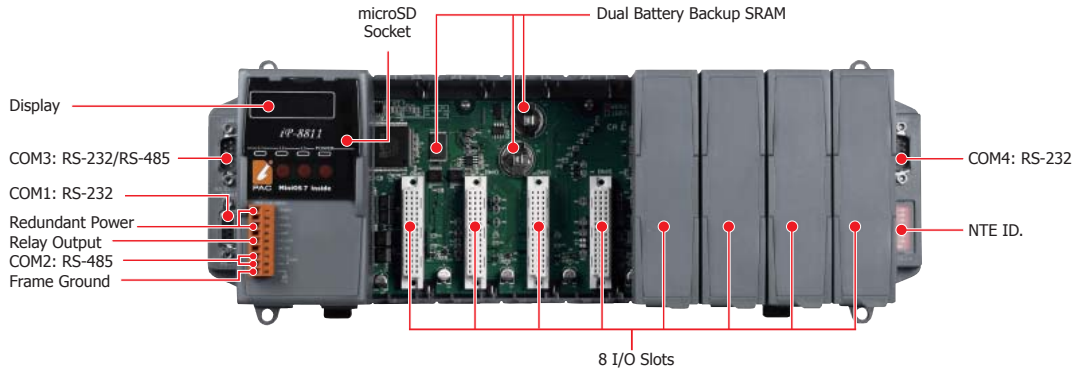
iP-8411/8811/8441(-FD)/8841(-FD)

Appearance

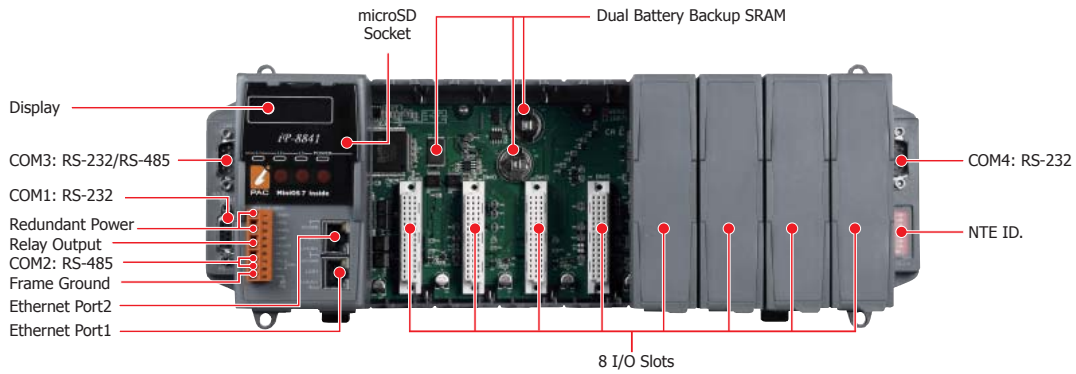
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Compact PAC

iP-8811



iP-8841/iP-8841-FD

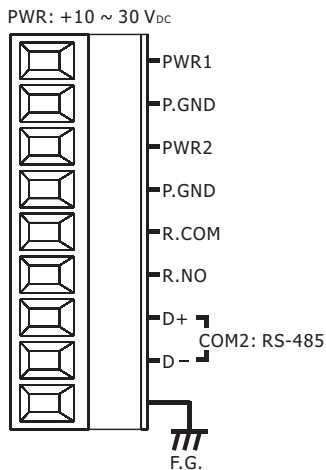


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iPAC-8000 Series

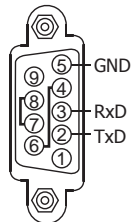
Pin Assignments

Terminal Block

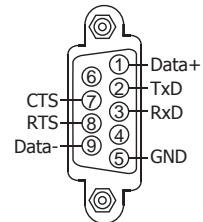


COM Port

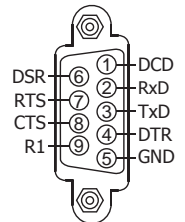
COM1: RS-232



COM3: RS-232/RS-485



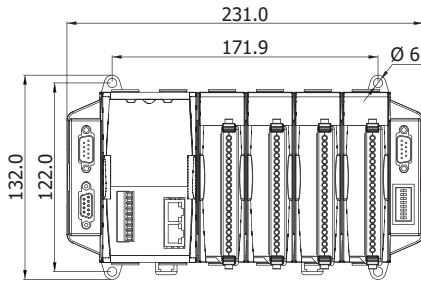
COM4: RS-232



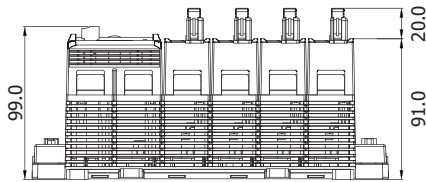
iP-8411/8811/8441(-FD)/8841(-FD)

Dimensions (Units: mm)

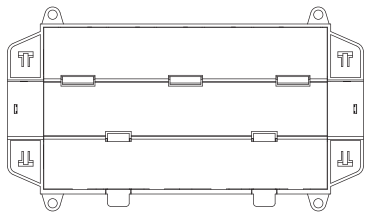
iP-8411/8441/8441-FD



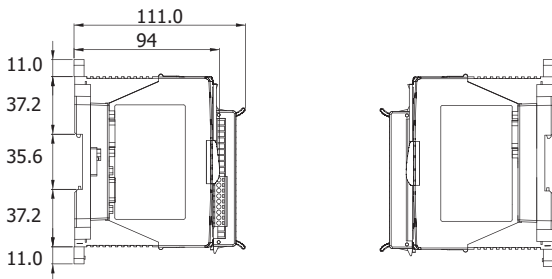
Front View



Bottom View



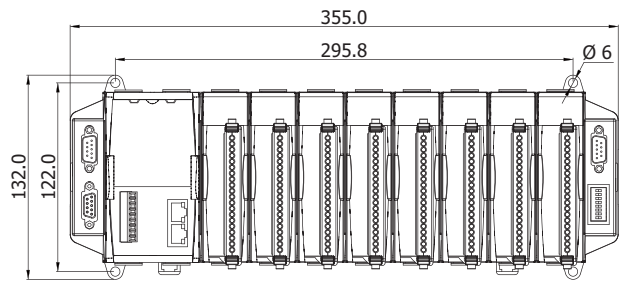
Rear View



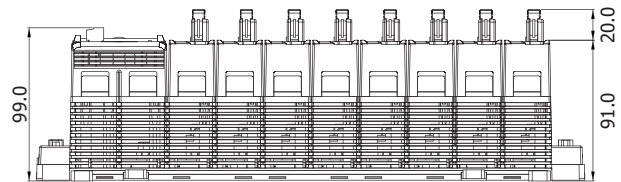
Left Side View

Right Side View

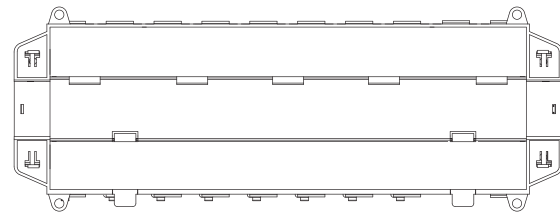
iP-8811/8841/8841-FD



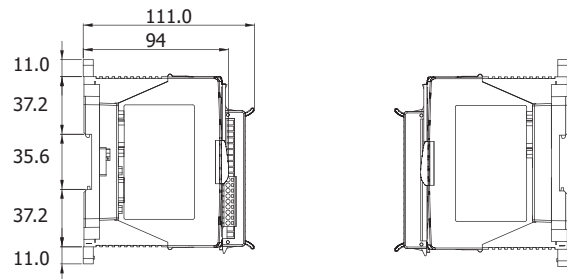
Front View



Bottom View



Rear View



Left Side View

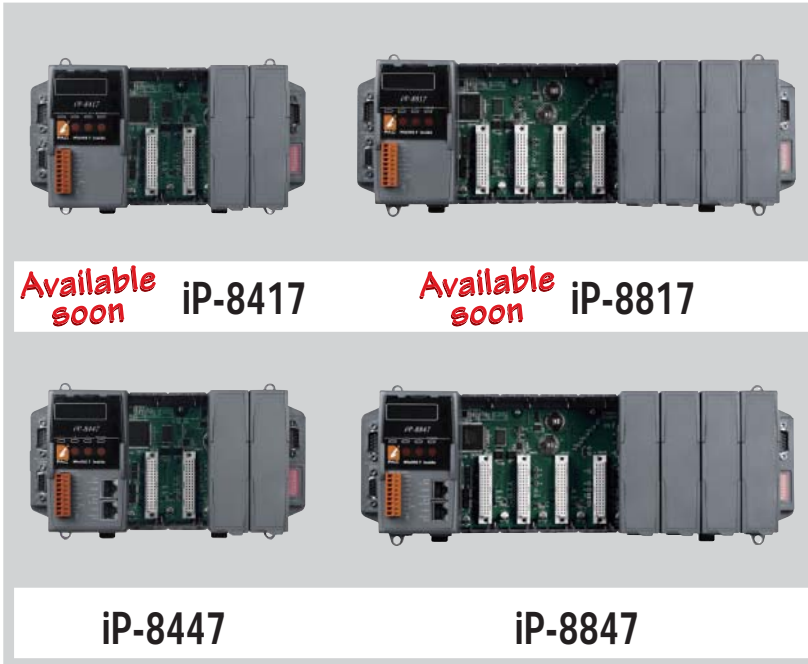
Right Side View

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 CR	24 V _{DC} /5.0 A, 120 W Power Supply with DIN-Rail Mounting (RoHS)
I-7560 CR	USB to RS-232 Converter (RoHS)
3LMSD-2000 CR	2 GB microSD card (RoHS)



Highlight Information

- ISaGRAF Ver.3 SoftLogic: Five IEC 61131-3 Standard Open PLC Languages + Flow Chart
- 80186, 80 MHz CPU (16 bits)
- 512 KB Battery Backup SRAM to Retain Data
- 64-bit Hardware Serial Number
- 4/8 Hot-Swap Slots for I-87K High Profile I/O Modules
- Dual 10/100M Ethernet Ports (for iP-8447/8847)
- 4 Serial Ports (RS-232/485)
- Redundant Power Inputs
- Operating Temperature: -25 ~ +75 °C

Introduction

iPAC-8xx7 Series (iP-8417/8817/8447/8847) is the ISaGRAF SoftLogic PAC of ICP DAS iPAC-8000 series. It is equipped an 80186, 80 MHz CPU running a MiniOS7 operating system, various connectivity (Dual 10/100 Base-TX Ethernet Ports for iP-8x47, one RS-232/485 port, one RS-485 port and two RS-232 ports) and 4/8 slots for high performance Parallel I/O modules (high profile I-8K series) and high performance Serial I/O modules (Hot-Swap high profile I-87K I/O modules). Users can also choose RS-485 Remote I/O modules (I-7000 series) or expansion units (RU-87Pn or I-87Kn) plugged with high profile I-87K serial I/O modules. Compared to I-8xx7, iPAC-8xx7 series is 2 ~ 4 times faster!

The iPAC-8xx7 Series supports ISaGRAF Ver.3 Workbench:

- IEC 61131-3 Standard Open PLC Programming Languages (LD, FBD, SFC, ST, IL, FC) + Flow Chart (FC)
- Auto-Scan I/O
- On-Line debug/control/monitor, off-line simulation
- Simple graphic HMI

Features

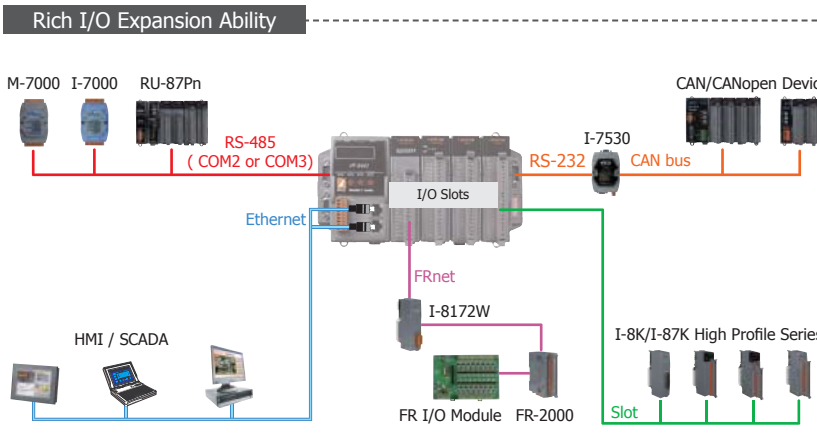
Software

- MiniOS7 Embedded Operating System (DOS-like)
- Development Software: ISaGRAF Ver.3
- Redundant Ethernet Communication (for iP-8x47)
- Support Modbus RTU/ASCII Master & Modbus RTU/TCP Slave
- Support Data Exchange
- Support CAN/CANopen
- Support FRnet I/O (via I-8172W)
- Support Motion Control
- Support Send Email with One File
- Support SMS: Short Message Service
- Support GPS, ZigBee & Radio Wireless communication
- Support Data-Recorder & Data-Logger
- Support Auto-report Acquisition Data & Control

Hardware

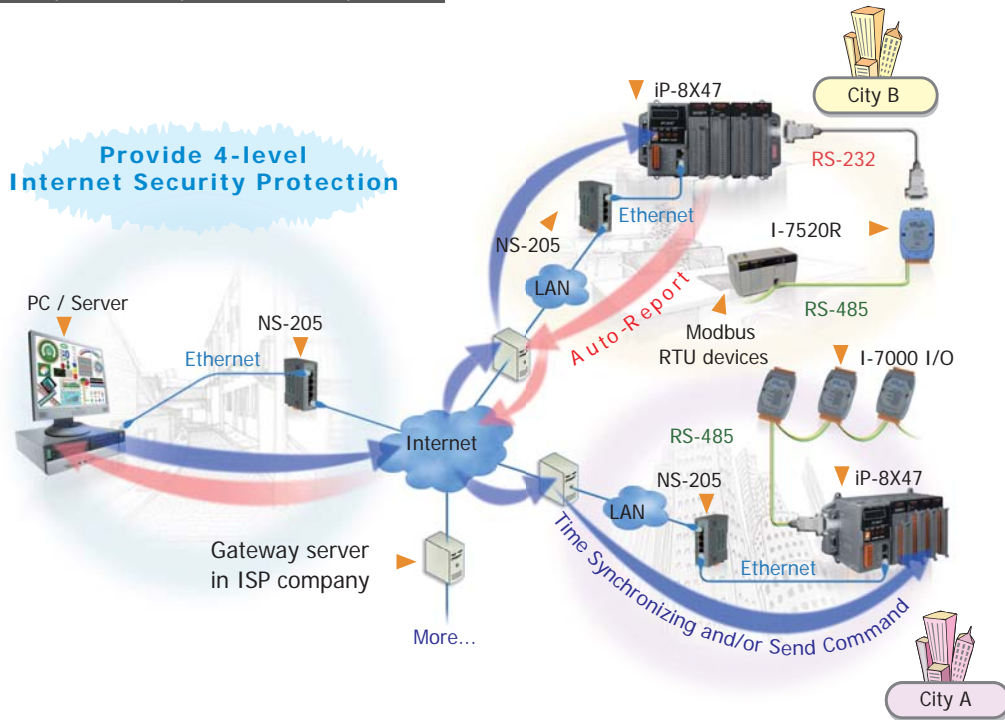
- Powerful CPU Module: 80186, 80 MHz
- Large SRAM: 768 KB for iP-8x47
SRAM: 512 for iP-8x17
- 512 KB FLASH Memory
- 16 KB EEPROM
- Support RTC
- Rich Communication Interface: RS-232/485, Ethernet
- 4/8 I/O Slots accept Parallel/Serial I/O board
- Hot-Swap High Profile I-87K I/O Ability
- Watchdog Timer Increase Reliability
- Dual Battery-Backup SRAM (512 KB)
- Dual Ethernet Ports (For iP-8x47)
- Redundant Power Inputs
- DIN-Rail or Wall Mounting
- Operating Temperature: -25 ~ +75 °C

Applications

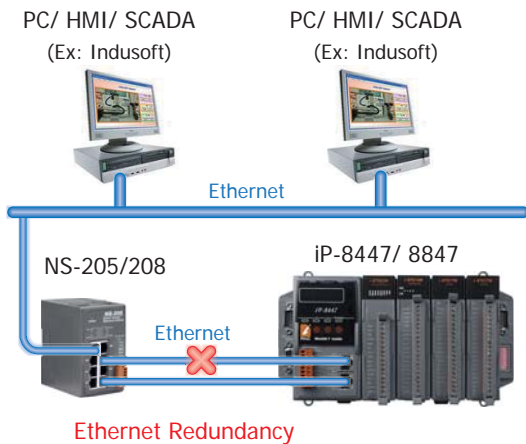


Cost-effective Auto-Report Data Acquisition/Control System

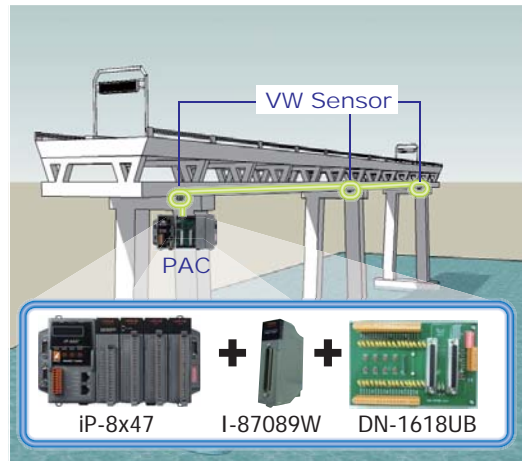
Provide 4-level Internet Security Protection



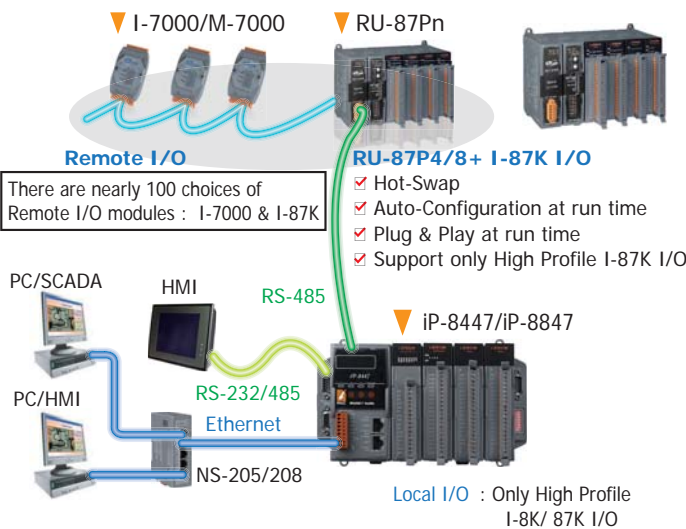
Ethernet Redundancy for HMI/PC/SCADA



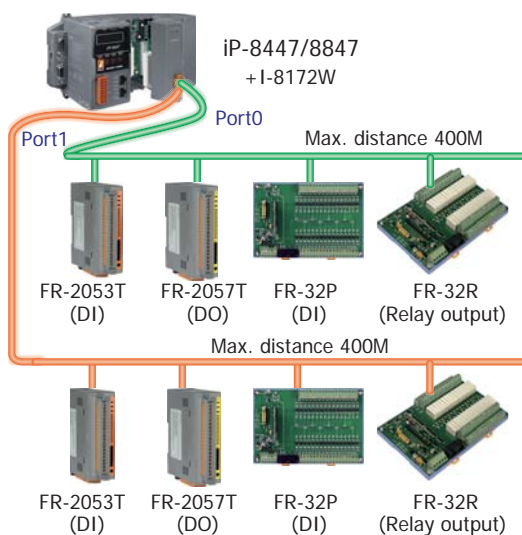
Stress Monitoring of Constructions



Local/Remote I/O Expansion & Multi-HMI



Fast FRnet Remote I/O



PAC Specifications

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Compact PAC

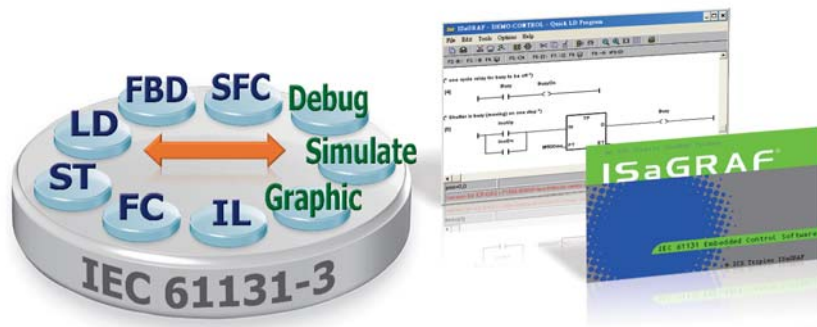
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iPAC-8000 Series

iP-8417/8817/8447/8847

Models	iP-8417	iP-8447	iP-8817	iP-8847
System Software				
OS	MiniOS7 (DOS-like embedded operating system)			
Development Software				
ISaGRAF Software	ISaGRAF Version 3	IEC 61131-3 standard		
	Languages	LD, ST, FBD, SFC, IL & FC		
	Max. Code Size	64 KB		
	Scan Time	2 ~ 25 ms for normal program 10 ~ 125 ms (or more) for complex or large program		
CPU Module				
CPU	80186 or compatible (16-bit and 80 MHz)			
SRAM	768 KB			
Flash	512 KB (100,000 erase/write cycles) with Flash protection switch			
Expansion Flash Memory	microSD socket			
Dual Battery Backup SRAM	512 KB (for 5 years data retain while power off), support up to 1024 retain variables			
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, for Software Copy Protection			
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) (Rx, Tx and GND); non-isolated			
COM 2	RS-485	D+, D-; self-tuner ASIC inside		
	Isolation	3000 V _{oc}		
COM 3	RS-232/RS-485 (Rx, Tx, CTS, RTS and GND for RS-232, Data+ and Data- for RS-485); non-isolated			
COM 4	RS-232 (Rx, Tx, 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
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 _{oc}			
Isolation	1 kV			
Redundant Power Inputs	Yes, with one power relay (1 A @ 24 V _{oc}) 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 _{oc})		7.2 W (0.3 A @ 24 V _{oc})	

ISaGRAF Specifications



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Compact PAC

5

iPAC-8000 Series

iP-8417/8817/8447/8847

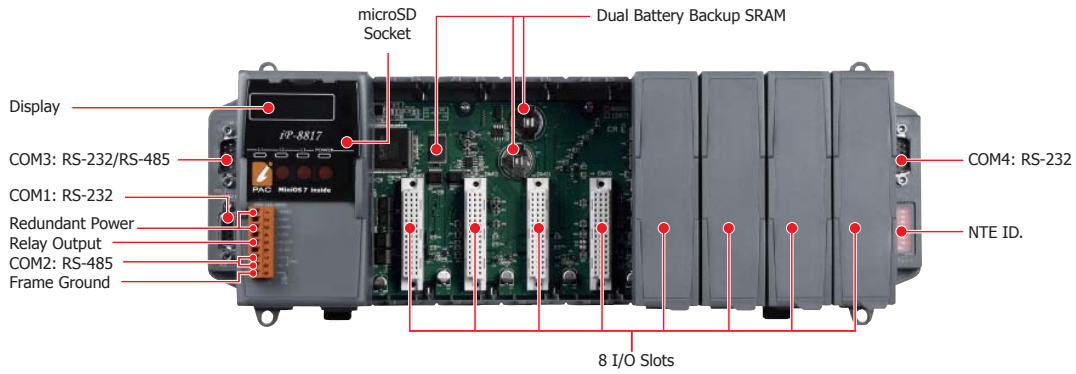
Protocols (some protocols need optional devices)		
Modbus RTU/ASCII Master	Max. 2 COM Ports, COM1 ~ COM5 can support Modbus RTU Master or ASCII Master protocol to connect to other Modbus Slave devices. Max. Modbus_XXX Function Block amount for 2 ports: 128. (*)	
Modbus RTU Slave	Max. 2 COM Ports, COM1 and one of (COM2, COM3) can support Modbus RTU Slave protocol for connecting ISaGRAF, PC/HMI/OPC Server & MMI panels.	
Modbus TCP/IP Slave	2 Ethernet ports support Modbus TCP/IP Slave Protocol for connecting ISaGRAF & PC/HMI. (Max. 6 connections)	
Remote I/O	One of COM2 or COM3 or COM4 supports I-7000 I/O modules & [(I-87Kn base or RU-87P1/2/4/8) + I-87K High Profile I/O boards] as Remote I/O. Max. 64 Remote I/O module for one PAC	
Fbus	Built-in COM3 Port to exchange data between ICP DAS's ISaGRAF PACs.	
Ebus	To exchange data between ICP DAS's ISaGRAF Ethernet PACs via Ethernet port. (The LAN2: upper port ONLY)	
SMS: Short Message Service	One of COM4/5 can link to a GSM Modem to support SMS. User can request data/control the controller by cellular phone. (*) The controller can also send data & alarms to user's cellular phone. Optional GSM/GPRS modem: GTM-201-RS232 (850/900/1800/1900 GSM/GPRS External Modem)	
User-Defined Protocol	COM1 ~ COM20 by serial communication function blocks (*)	
Modem_Link	COM4 can connect a general Modem. Supports PC to remotely download & monitor the controller.	
MMICON/LCD	One of COM3 or COM4 supports ICP DAS's MMICON. The MMICON is featured with a 240 x 64 dot LCD and a 4 x 4 Keyboard. User can use it to display picture, string, integer, float, and input a character, string, integer and float.	
Redundant Bus7000	Two ISaGRAF PACs can link to remote I-7000 & I-87K High profile I/O modules at the same time. Only one controller is active to control these Remote I/Os. If one is dead, the other one will take over the control of Remote I/Os.	
CAN/CANopen	COM1, 3, 4 or COM5 ~ COM12 can connect one I-7530 (converter: RS-232 to CAN) to support CAN/CANopen devices and sensors. One iP-8x47 supports max. 3 RS-232 ports to connect max. 3 I-7530. (*)	
FRnet I/O	Support max. 4 I-8172W FRnet Master cards to connect FRnet I/O modules (Max. 1024-ch. DI + 1024-ch. DO)	
Send E-mail	Actively or passively sending E-mail via Ethernet port through internet. Max.10 receivers for each sending and can send E-mail with an attached file. (Max. file size is about 488 KB)	
Optional I/O Functions (Refer to ISaGRAF PAC I/O Selection Guide for I/O Module list)		
PWM Output	High Speed PWM Module	I-8088W, 8-ch PWM outputs, software support 1 Hz ~ 100 kHz (non-continuous), duty: 0.1 ~ 99.9%
	DO Module as PWM	8-ch max. for one controller. 500 Hz max. For Off=1 & On=1 ms Output Square Curve: Off: 1 ~ 32767 ms, On: 1 ~ 32767 ms. Optional DO Boards: I-8037W, 8041W, 8041AW, 8042W, 8050W, 8054W, 8055W, 8056W, 8057W, 8060W, 8063W, 8064W, 8068W, 8069W... (Relay Output boards cannot generate fast square pulse)
Counters, Encoder, Frequency	Parallel DI Counter	8 ch. max. for 1 controller. Counter Val: 32-bit.; 500 Hz max. Min. ON & OFF width must > 1 ms Optional DI boards: I-8040W, 8040PW, 8042W, 8046W, 8048W, 8050W, 8051W, 8052W, 8053W, 8053PW, 8054W, 8055W, 8058W, 8063W...
	Serial DI Counter	Counter input: 100 Hz max. Counter value: 0 ~ 65535 (16-bit) Optional serial I-87K DI boards: I-87040W, 87046W, 87051W, 87052W, 87053W, 87053W-A5, 87054W, 87055W, 87058W, 87059W, 87063W...
	Remote DI Counter	All I-7000/I-87K DI modules support counters. 100 Hz max. value: 0 ~ 65535
	High Speed Counter	I-87082W: 100 kHz max. 32-bit; I-8084W: 250 kHz max. 32-bit
	Encoder	I-8093W : 3-axis Encoder Module, max. 1M Hz for quadrant input mode, max. 4M Hz for pulse/direction and cw/ccw input mode. I-8084W: 250 kHz max. , 4-ch encoder, can be Dir/Pulse, or Up/Down or A/B phase (Quad. mode); Not support Encoder Z-index.
Motion	Frequency	I-87082W: 2-ch, 1 Hz ~ 100 kHz; I-87088W: 8-ch, 1 Hz ~ 100 kHz; I-8084W: 8-ch, 1 Hz ~ 250 kHz;
	Motion Control	Can integrate with one I-8091W (2-axis) or two I-8091W (4-axis) to do motion control. Ethernet communication is also available when doing motion control.
*Note: COM5 ~ COM20 are resided at the expansion boards if they are plugged on slot0~7 of iP-8xx7.		

Appearance

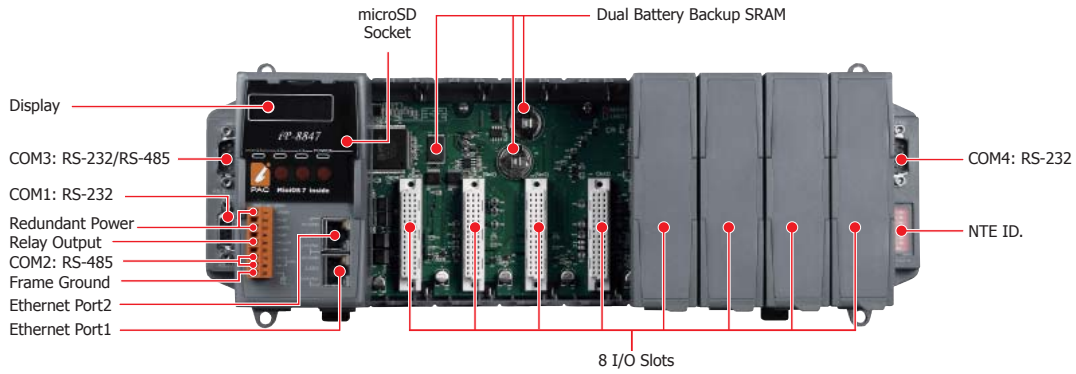
2

Compact PAC

iP-8817



iP-8847

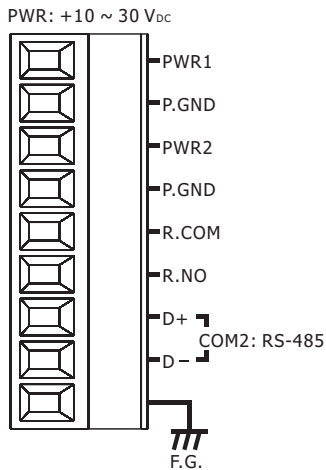


5

iPAC-8000 Series

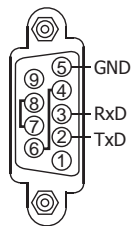
Pin Assignments

Terminal Block

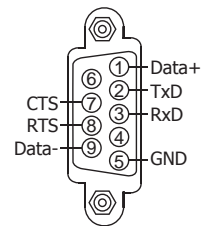


COM Port

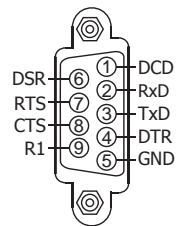
COM1: RS-232



COM3: RS-232/RS-485



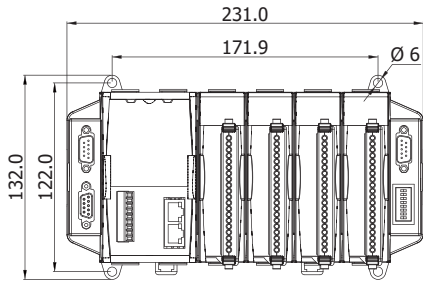
COM4: RS-232



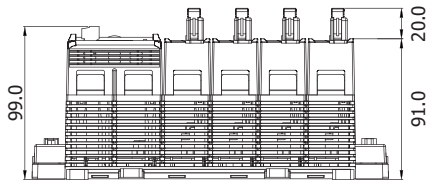
iP-8417/8817/8447/8847

Dimensions (Units: mm)

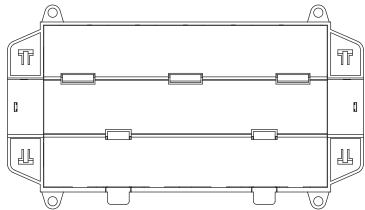
iP-8417/8447



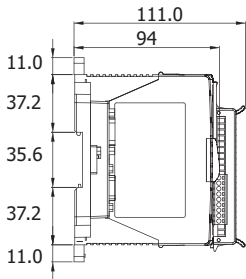
Front View



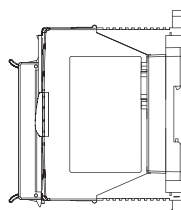
Bottom View



Rear View

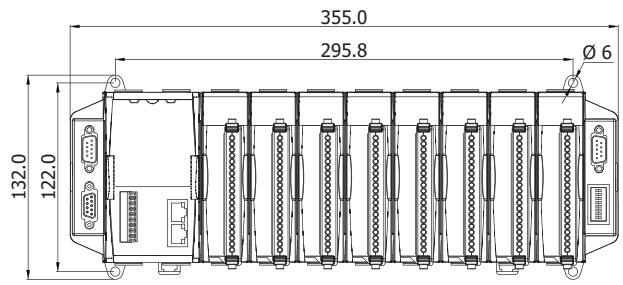


Left Side View

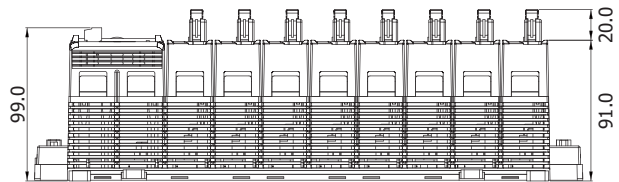


Right Side View

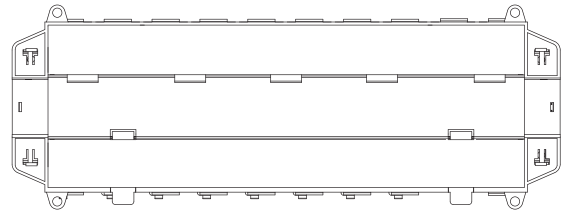
iP-8817/8847



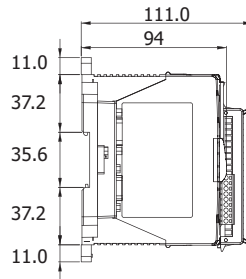
Front View



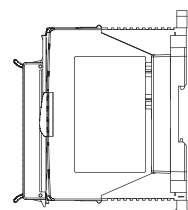
Bottom View



Rear View



Left Side View



Right Side View

2

Compact PAC

5

iPAC-8000 Series

iP-8417/8817/8447/8847

Ordering Information

iP-8417 CR	ISaGRAF based iPAC-8000 with 4 I/O Slots (RoHS)
iP-8817 CR	ISaGRAF based iPAC-8000 with 8 I/O Slots (RoHS)
iP-8447 CR	ISaGRAF based iPAC-8000 with 4 I/O Slots (RoHS)
iP-8847 CR	ISaGRAF based iPAC-8000 with 8 I/O Slots (RoHS)

Accessories

ISaGRAF Development Software	
ISaGRAF-256-E	ISaGRAF Workbench Software Ver.3 (256 I/O Tags) with One Application Book (English version) and one USB Dongle
ISaGRAF-256-C	ISaGRAF Workbench Software Ver.3 (256 I/O Tags) with One Application Book (Chinese version) and one USB Dongle
ISaGRAF-32-E	ISaGRAF Workbench Software Ver.3 (32 I/O Tags) with One Application Book (English version) Note: No upgrade service from ISaGRAF-32 to ISaGRAF-256. (Using ISaGRAF-32 can control more than 32 I/O tags. Please refer to ISaGRAF User's Manual Ch. 3.4)
ISaGRAF-32-C	ISaGRAF Workbench Software Ver.3 (32 I/O Tags) with One Application Book (Chinese version) Note: No upgrade service from ISaGRAF-32 to ISaGRAF-256. (Using ISaGRAF-32 can control more than 32 I/O tags. Please refer to ISaGRAF User's Manual Ch. 3.4)
Power Supply	
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 CR	24 V _{DC} /5.0 A, 120 W Power Supply with DIN-Rail Mounting (RoHS)
Converter	
I-7560 CR	USB to RS-232 Converter (RoHS)