

XP-8xx7-CE6 Series WinCE 6.0 ISaGRAF PAC



XP-8047-CE6

XP-8347-CE6

XP-8747-CE6



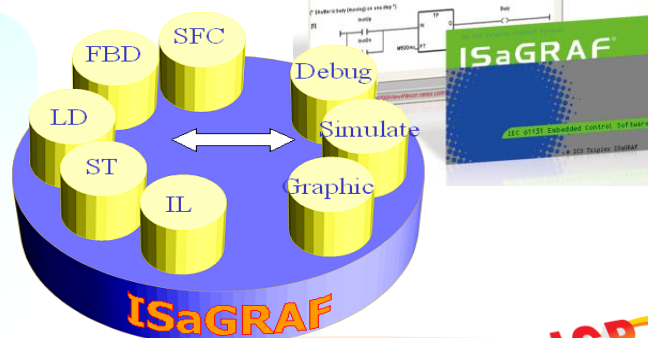
XP-8xx7-CE6 Series (XP-8047-CE6 / 8347-CE6 / 8747-CE6 & XP-8047-CE6-PRO / 8347-CE6-PRO / 8747-CE6-PRO) is the new generation WinCE 6.0 based ISaGRAF PAC of ICP DAS. XP-8xx7-CE6 Series (ISaGRAF XPAC) is equipped with an AMD LX 800 CPU (32-bit, 500 MHz) running a Windows Embedded CE 6.0 operating system, various connectivity including 10/100 Base-TX Ethernet Ports, RS-232/RS-485 ports, VGA and USB 2.0 ports, and 3/7 slots for high performance Parallel-type I/O modules (High Profile I-8K Series) and Serial-type I/O modules (Hot-Swap High Profile I-87K I/O modules), etc. Memories come with 512 MB DDR SDRAM, 512 KB dual battery backup SRAM, 4 GB FLASH & 1 GB CF card. For redundant supporting: redundant power inputs, dual Ethernet Ports, dual battery backup SRAM & dual Watchdog Timers. The Professional OS version XPAC XP-8xx7-CE6-PRO provides built-in Internet Explorer Software.

Major advantages compared with the WP-8xx7 and VP-2xW7 :

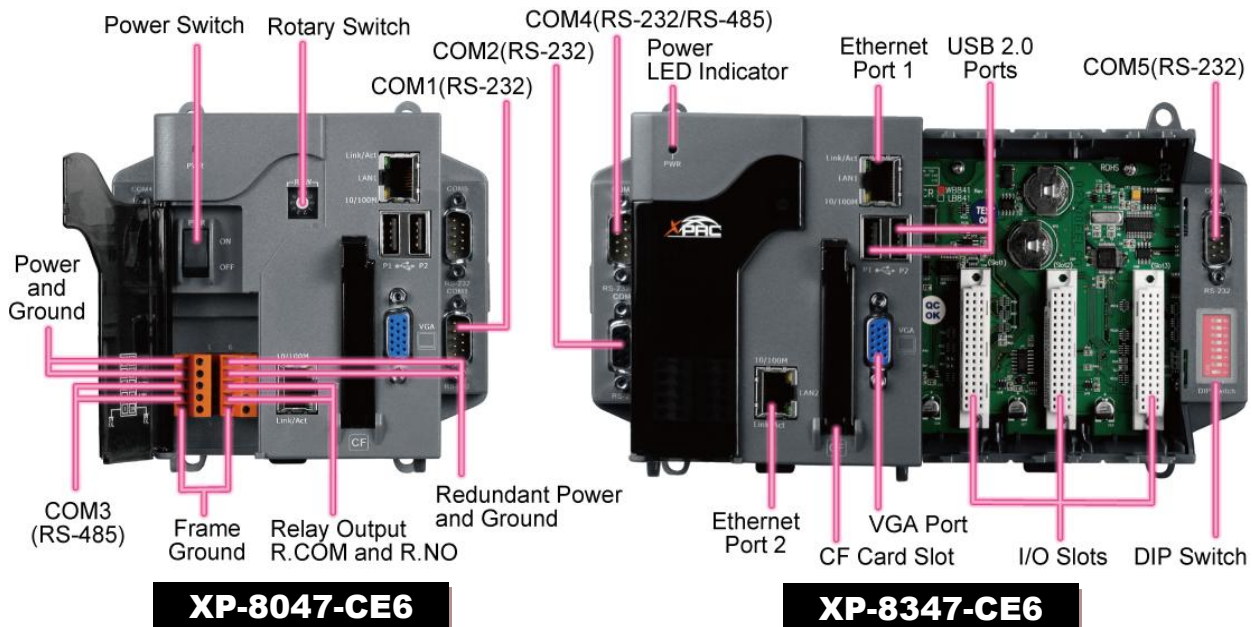
- The USB-mouse operations and Ethernet communication of the XP-8xx7-CE6 are more effective (consume less CPU loading) than the WP-8xx7 and VP-2xW7.
- The memory size (Flash and SDRAM) of the XP-8xx7-CE6 is much more than the WP-8xx7 and VP-2xW7.

The ISaGRAF PAC supports ISaGRAF Ver.3 Workbench :

- IEC 61131-3 Standard Open PLC Programming Languages + Flow Chart(FC) :
 1. LD
 2. FBD
 3. SFC
 4. ST
 5. IL
 6. FC
- Auto-Scan I/O
- On-line debugging
- On-line control / monitoring
- Off-line simulation
- Simple graphic HMI



- Windows CE 6.0 Inside
- .NET Compact Framework 3.5
- ISaGRAF Ver.3 SoftLogic Inside
- Support IEC 61131-3 Standard
- Support Microsoft Visual Basic.NET 2003/2005/2008, Visual C#.NET 2003/2005/2008
- AMD LX 800 CPU: 32-bit & 500 MHz or Compatible
- More Effective USB & Ethernet than WP-8xx7
- VGA port x 1, Resolution : 640 x 480 ~ 1024 x 768, or above
- Dual Ethernet Ports (10/100M)
- Dual USB Ports : USB 2.0
- RS-232/485 Serial Comm. Ports: XP-8047-CE6 x 5, XP-8347-CE6/8747-CE6 x 4
- I/O Slots: 0 / 3 / 7 Slot(s) Hot-Swap I-87K High Profile Card
- DDR SDRAM : 512 MB
- Battery Backup SRAM: 512 KB
- FLASH : 4 GB
- CF Card: 1 GB, support max. 32 GB
- Redundant Power Inputs ; Dual-XPAC Redundant System
- XP-8xx7-CE6-PRO : Built-in Internet Explorer software
- Support eLogger HMI



XP-8047-CE6

XP-8347-CE6

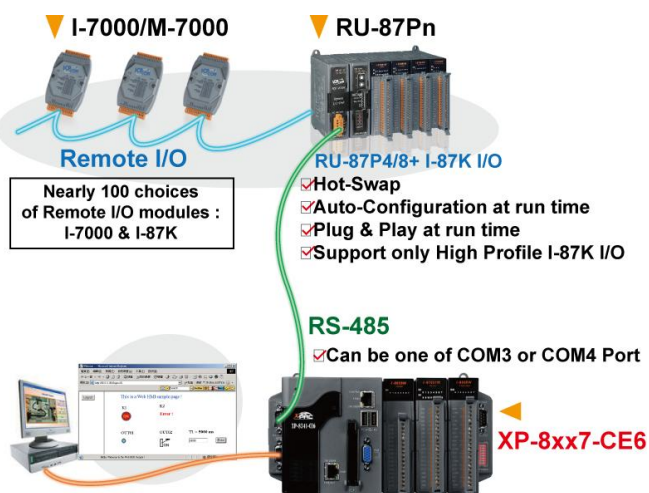
Hardware Features:

- ☑ **Powerful CPU Module**
 - LX 800 CPU: 32-bit & 500 MHz or compatible
- ☑ **Rich Memories**
 - EEPROM : 16 KB
 - DDR SDRAM : 512 MB
 - Dual battery backup SRAM : 512 KB
 - FLASH : 4 GB as IDE Master
 - CF card : 1 GB (support up to 32 GB)
- ☑ **Dual Battery-Backup SRAM (512 KB)**
 - Retain the data for 5 years while power off
- ☑ **Dual Watchdog Timers Increase Reliability**
 - OS Watchdog / AP Watchdog
- ☑ **Redundant Power Inputs**
 - Prevent from failing by one of the power loss
- ☑ **64-bit Hardware Serial Number**
 - Unique & protecting software & applications
- ☑ **I/O Module Hot-Swap Ability**
 - Plug & play for I-87K High Profile I/O Card
- ☑ **Rich I/O Expansion Ability**
 - RS-232/485/422
 - Ethernet
 - FRnet
 - CAN
- ☑ **Two Ethernet Ports (10/100M)**
 - Redundant Ethernet communication
 - Separate systems: Global Internet / private Ethernet
- ☑ **Built-in VGA port**
 - Max. Resolution: 1024 x 768, or above
- ☑ **Built-in Two USB 2.0 Ports**
- ☑ **Operating Temperature: -25°C ~ +75°C**
Storage Temperature: -30°C ~ +85°C

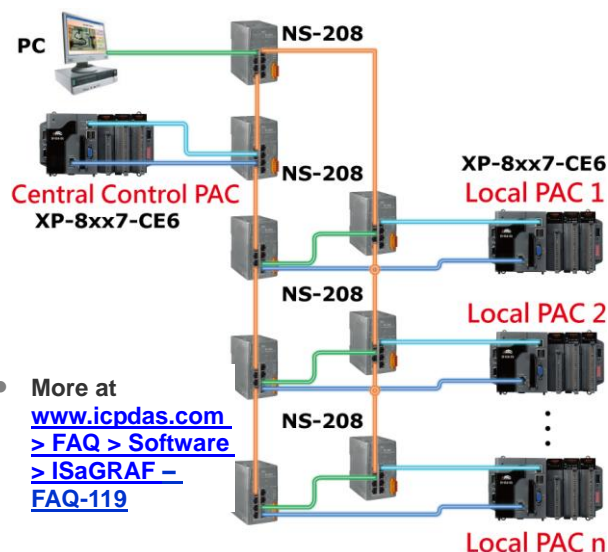
Software Features:

- ☑ **Development Software: ISaGRAF Ver.3**
 - ISaGRAF Version 3
 - Running on Windows 95/98/NT/2000/XP/Vista/Windows 7
 - All-in-one design environment
 - Provide **Six** PLC syntaxes (Five IEC 61131-3 Standard + 1 Flow Chart)
 - Max. **2 MB** ISaGRAF code size
 - On-line debugging, monitoring and control
 - Support off-line simulation
 - Easy integrating to HMI/SCADA/MMI
- ☑ **Windows CE.NET 6.0**
- ☑ **CPU Loading**
 - The operation of USB-mouse and Ethernet communication consume less CPU loading than the WP-8xx7
- ☑ **Modbus Master**
 - RTU, ASCII, RS-232/485/422 (Max. **33** ports)
 - Modbus TCP Master (Max. **100** devices)
- ☑ **Modbus Slave**
 - Modbus RTU (RS-232/485/422) Slave (Max. **9** ports)
 - Modbus TCP/IP Slave (Max. **64** connections)
- ☑ **Data-Recorder & Data-Logger**
- ☑ **Data Exchange**
 - Ebus: Through Ethernet
 - PAC to PAC
- ☑ **CAN/CANopen**
 - Via I-7530 to connect CAN/CANopen devices
- ☑ **FRnet I/O (Via I-8172W)**
- ☑ **Redundant Solutions**
 - Redundant Communication System: RS-485 & Ethernet
 - New Redundant System: With Ethernet I/O
 - Hot Swap Redundant System: With RU-87Pn + I-87K I/O
- ☑ **Motion Control**
- ☑ **Send Email with/without a File**
- ☑ **SMS (Short Message Service): GSM modem**
- ☑ **Wireless Communication: GPS, ZigBee & Radio**
- ☑ **Auto-report Acquisition/Control Data**
- ☑ **VW Solutions**

Remote I/O Application

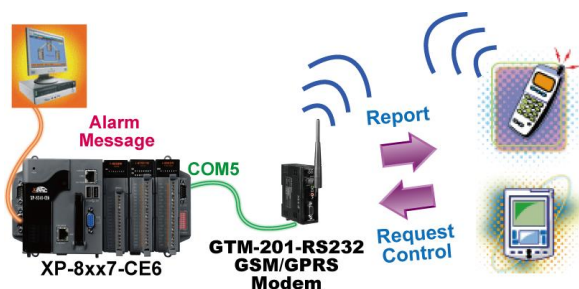


Redundant Communication System



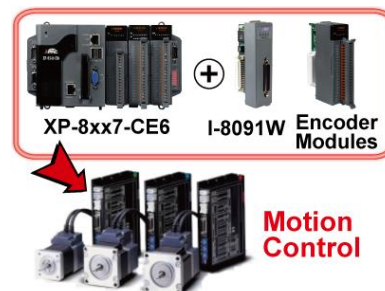
SMS: Short Message Service

- Short message can be sent in multiple language format (like Chinese, English... others)
- More at www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 (English) - 111



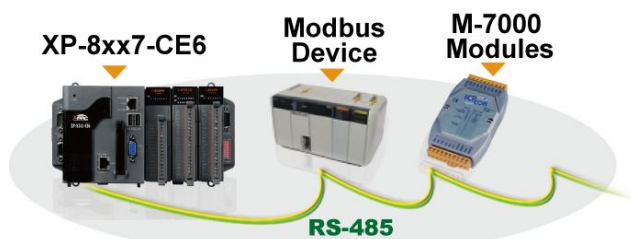
Motion Control

- One **I-8091W** can control 2 axes:
X-Y plane, or 2 axes independent
- Two **I-8091W** can control 4 axes:
X-Y plane + 2 axes independent, or 4 axes independent
- Encoder Modules
I-8084W: 4-axis, without Z-index (FAQ-100)
I-8090W: 3-axis
I-8093W: 3-axis (FAQ-112)



Modbus Master : RTU, ASCII, RS-232/485/422

- Support up to **33** ports:
COM1~5 (only XP-8047-CE6 can use COM1 as Modbus Master)
COM6~33 (if I-8112iW/ 14W/ 14iW/ 42iW/ 44iW in Slot 1~7)
- Can link to Modbus PLC or M-7000 I/O or Modbus devices (Power meter, temperature controller, inverter etc.)



Modbus Slave : RTU / TCP

- Modbus RTU (RS-232/485/422) Slave**: max. **9** ports
- Modbus TCP/IP Slave**: max. **64** connections

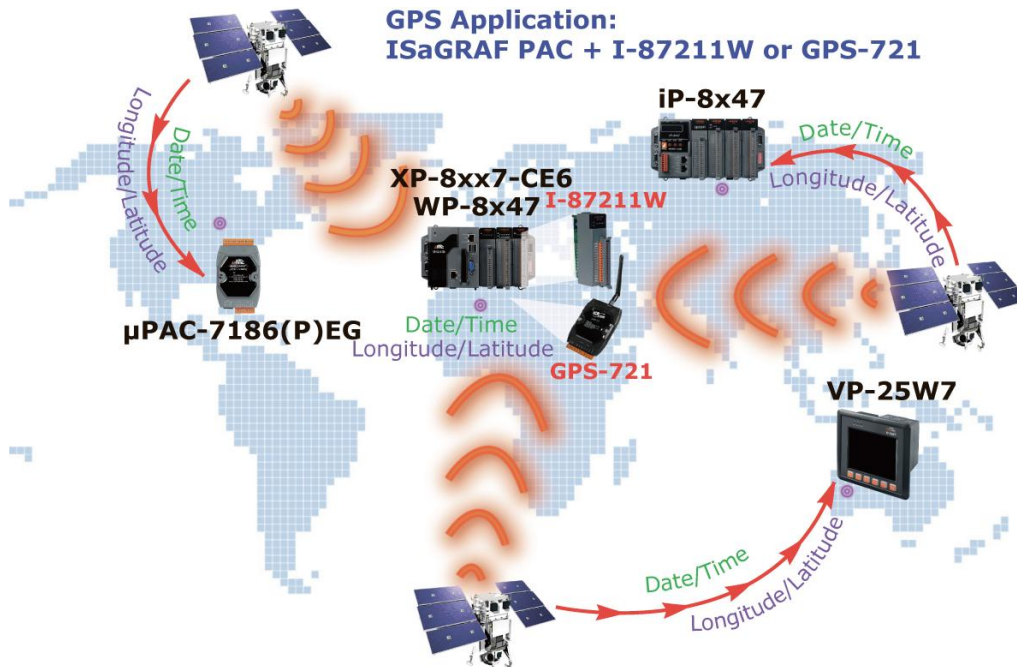


GPS applications: ISaGRAF PAC plus I-87211W or GPS-721

- For doing auto-time-synchronization and getting local Longitude and Latitude
- ISaGRAF PAC can support one I-87211W (slot 1~7) or I-87211W / GPS-721 as RS-485 remote GPS I/O.

More at www.icpdas.com > FAQ > Software > ISaGRAF > FAQ-107

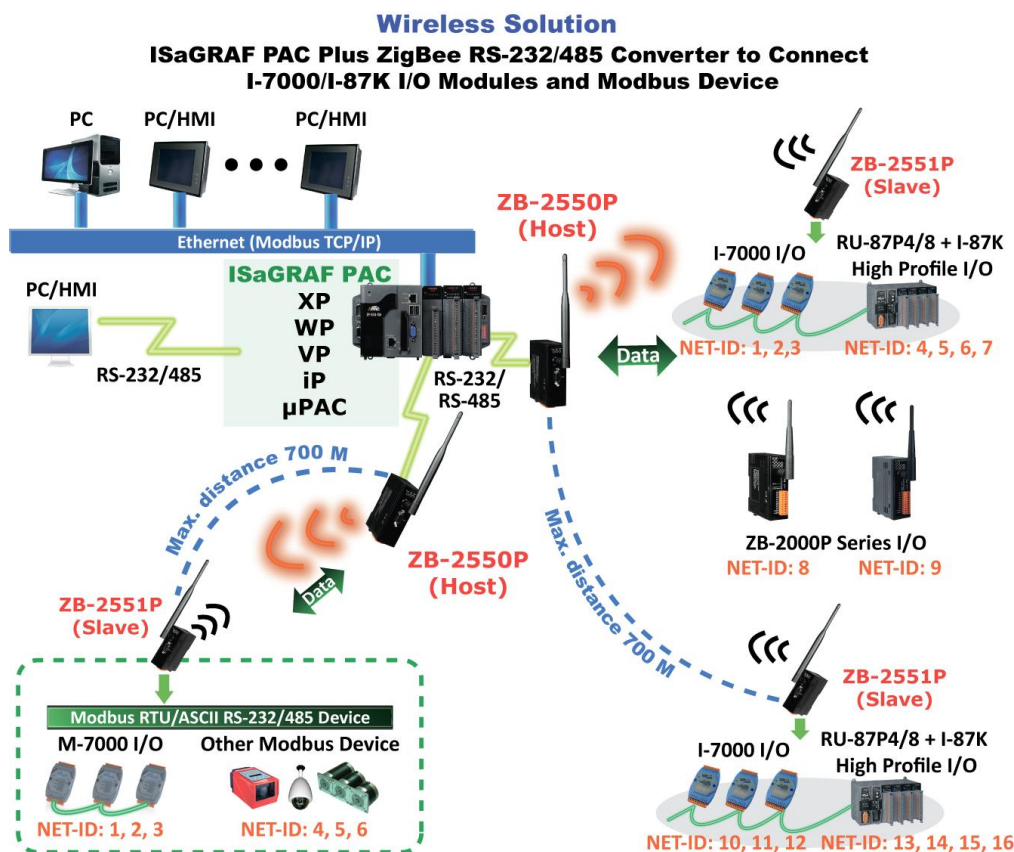
More GPS receivers at www.icpdas.com > Products > Wireless..... > GPS receiver



ZigBee Wireless Solution

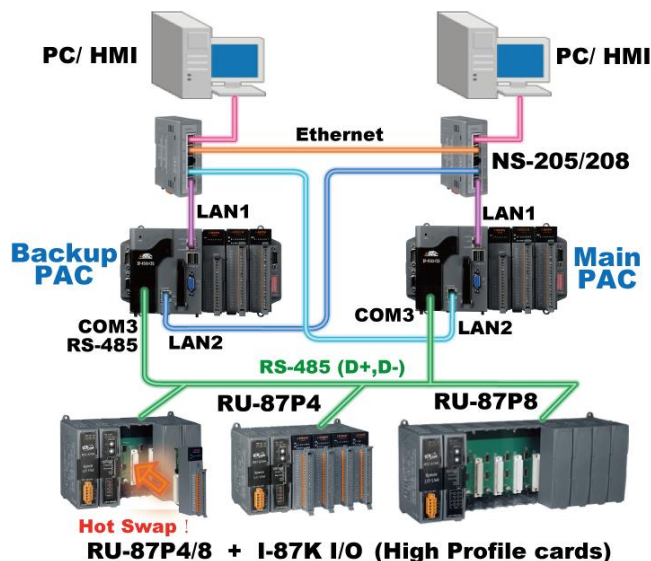
- ISaGRAF PAC plus ZB-2550P and ZB-2551P converters (ZigBee to RS-232/485)

More at www.icpdas.com > FAQ > Software > ISaGRAF > FAQ-110



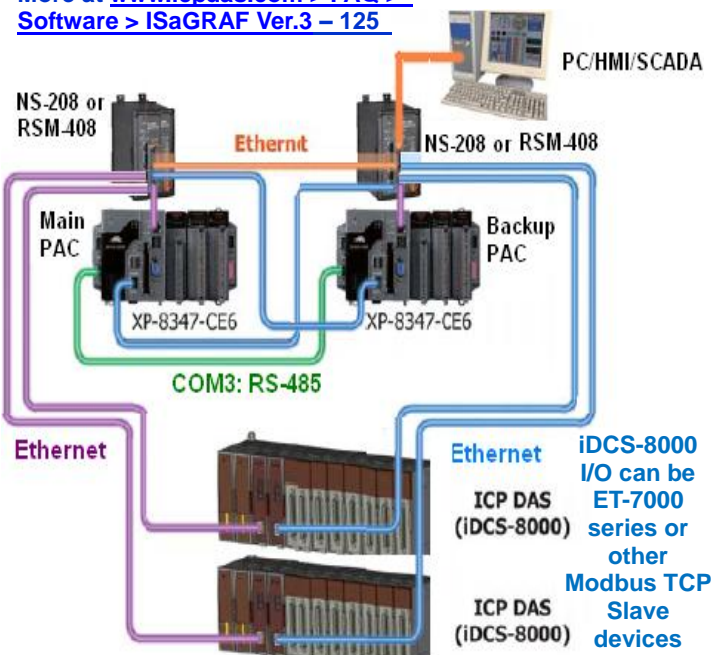
● New Hot-Swap and Redundant System

- If one Ethernet cable of XP-8xx7-CE6 is broken or damaged, the other one will still work.
- If one controller is dead, the other one will take over the control of the RS-485 I/O.
- PC/HMI can connect to this redundant system by one or two active IP.
- More at www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 (English) - 093



● Redundant System with iDCS-8000

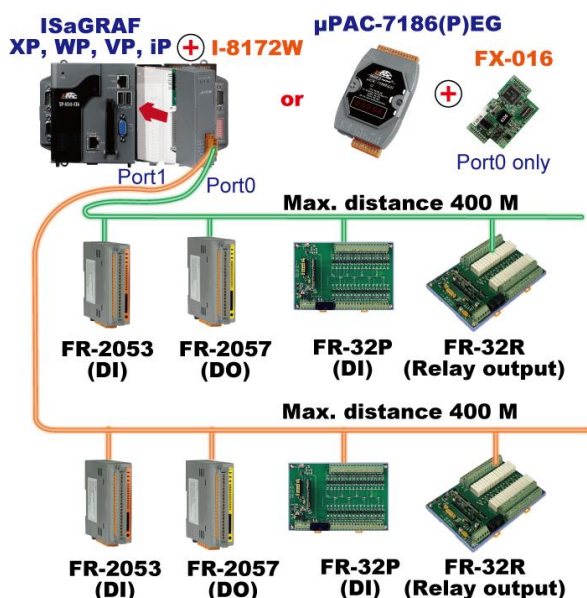
- Dual PACs, dual Ethernet ports redundant system
- PC/HMI can just connect one IP address to link to the redundant system. If the active PAC is damaged, it will take about 0.5 seconds to switch to the other PAC.
- iDCS-8000: Dual power board, dual MCU, dual Ethernet port, dual I/O board redundant and with hot-swap function.
- More at www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 - 125



● Fast FRnet Remote I/O

Advantage of FRnet I/O: Fast I/O scan time is about 3 ms/scan. (It depends on your program's PLC scan time. Ex: If the ISaGRAF program's PLC scan time is about 9 ms, then the scan time for all will be 9 ms, not 3 ms)

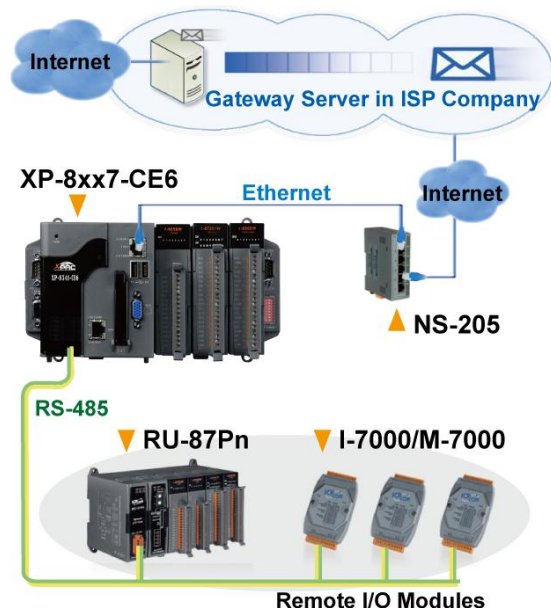
Note: FRnet I/O do not support AI & AO yet.



More at www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 (English) - 082

● Send Email with One Attached File

More at www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 (English) - 067



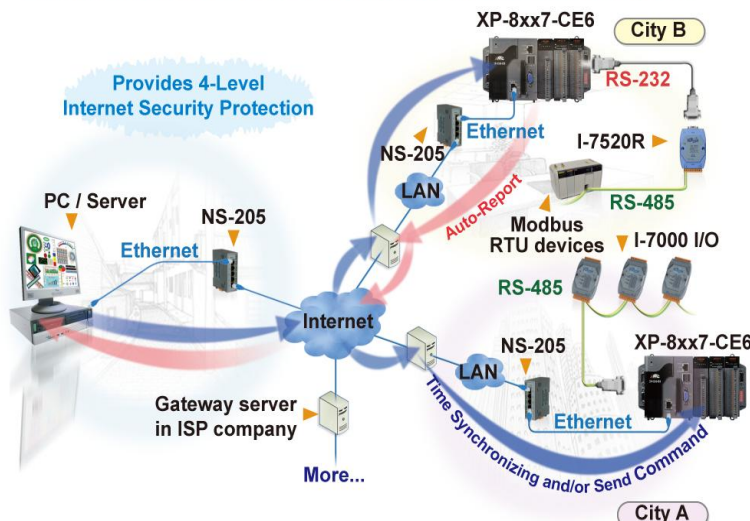
● Auto-report Acquisition & Control Data

XP-8xx7-CE6 can use UDP IP Client to auto-report acquisition data & control data to local or remote internet PC/Server.

Advantage : Every PAC in the different location doesn't need a fixed Internet IP

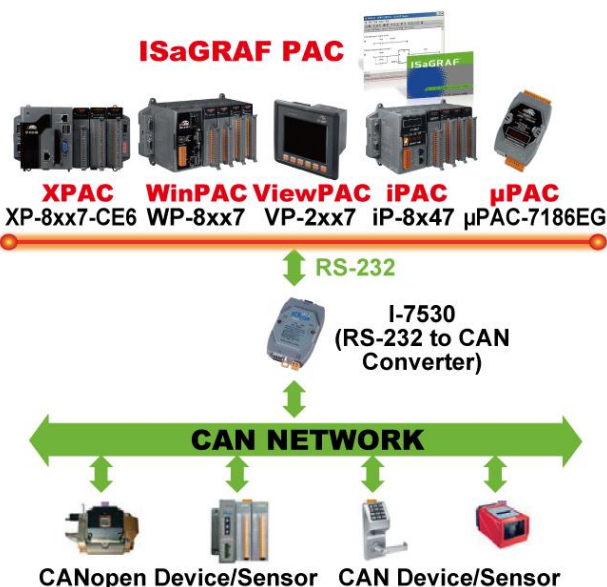
- More at www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 (English) - 065

Stable and Cost-effective Data Acquisition Auto-Report System



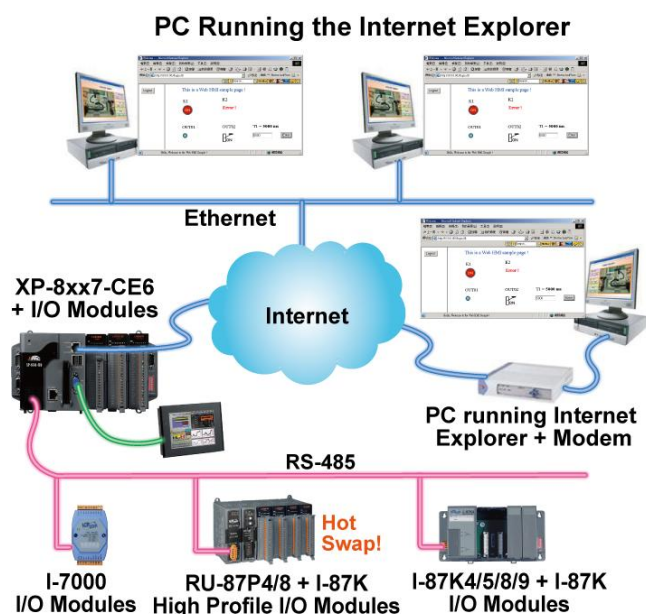
● Integrate with CAN/CANopen Devices & Sensors

- Supports max. 32 I-7530 (RS-232 to CAN Converter)
- Please refer to www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 (English) > 086



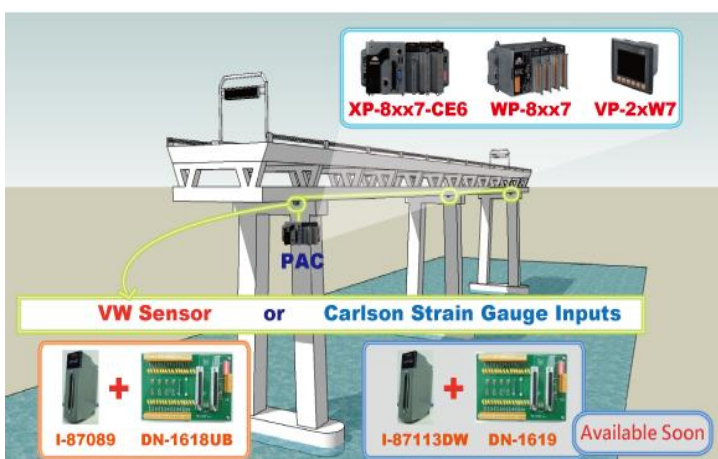
● Multiple Web HMI – Monitor & Control Everywhere!

- The XP-8xx7-CE6-PRO can run its own Internet Explorer to monitor itself, but the XP-8xx7-CE6 requires running Internet Explorer in PC to monitor it.



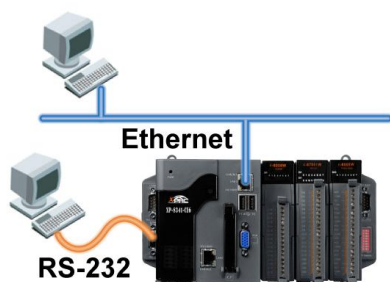
● Stress Monitoring Application of Constructions

- ICP DAS provides useful "VW Sensor" (Vibration Wire solution) and "Carlson Strain Gauge Inputs" solution for measuring the stress of constructions.
- Each ISaGRAF PAC (as FAQ-091) supports the I-87089 (the VW master card) plus the DN-1618UB (daughter board) to achieve the "VW Sensor" application.
- Each XP-8xx7-CE6, WP-8xx7 or VP-25W7/23W7 supports the I-87113DW module (the master card of Carlson Strain Gauge Inputs) plus the DN-1619 (DN-1618U-Test1) (daughter board) to achieve the "Carlson Strain Gauge Inputs" application.
- More at www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 – FAQ-091 and FAQ-128

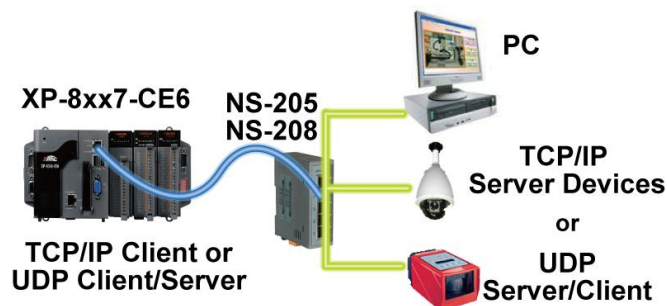


● Data-Recorder & Data-Logger

- PC can load the data file stored in the XP-8xx7's Flash Disk or CF card by ftp or by Web HMI.



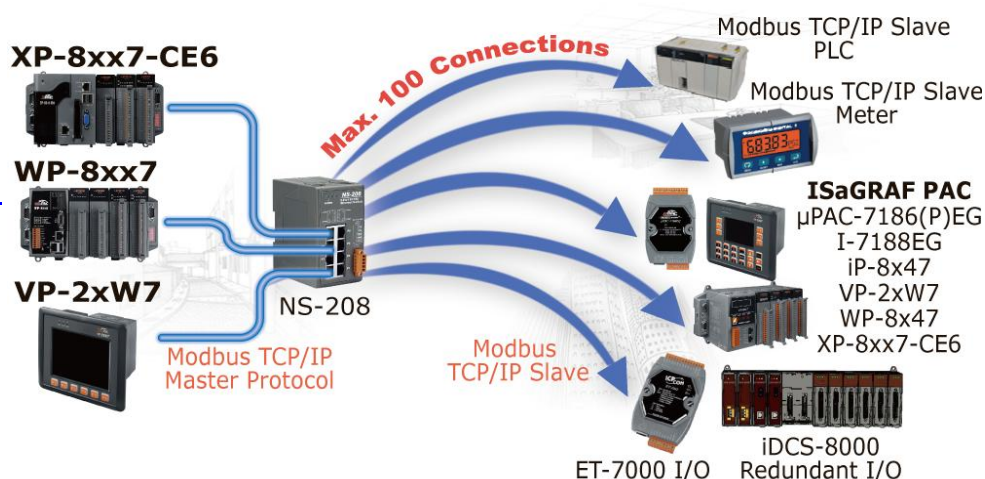
● Communicate With Other TCP/IP Server or UDP Client/Server Devices



● Modbus TCP/IP Master

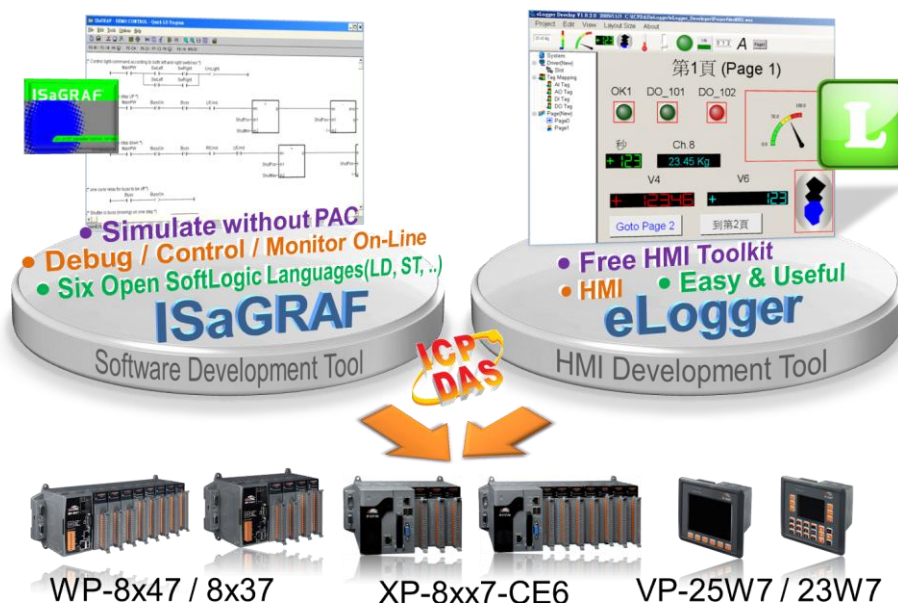
- Each XP-8xx7-CE6 supports to link to max. 100 Modbus TCP/IP slave devices.
- Support various Standard Modbus TCP/IP Slave devices.

More at
www.icpdas.com > FAQ
 > Software > ISaGRAF >
 FAQ-113



● Working eLogger HMI with ISaGRAF SoftLogic

- More at www.icpdas.com > FAQ > Software > ISaGRAF Ver.3 (English) - 115





Specifications of XP-8047-CE6/ 8347-CE6/ 8747-CE6

Models	XP-8047-CE6 XP-8047-CE6-PRO	XP-8347-CE6 XP-8347-CE6-PRO	XP-8747-CE6 XP-8747-CE6-PRO
■ System Software			
OS	Microsoft Windows Embedded CE 6.0		
.Net Compact Framework	3.5		
Embedded Service	FTP server, Web server (for all XP-8xx7-CE6) Internet Explorer (only for XP-8xx7-CE6-PRO version)		
■ Development Software			
ISaGRAF Software	ISaGRAF Version 3 : IEC 61131-3 standard. Languages: LD, ST, FBD, SFC, IL & FC		
Max. Code Size	Accept max. 2 MB ISaGRAF code size (Appli.x8m must < 2 MB)		
Non-ISaGRAF	Options: Microsoft EVC++ 4.0 or VS.NET 2003/2005/2008 (VB.NET2003/2005/2008, C#.NET 2003/2005/2008) with .Net Compact Framework 3.5		
■ Web Service			
Web HMI	Support Web HMI function, PC running Internet Explorer can access to the XP-8xx7-CE6 via local Ethernet, Internet or dial Modem to monitor and control.		
Security	Web HMI supports three levels username and password protection. (high/middle/low)		
■ Power Supply			
Input Range	+10 ~ +30 V _{DC} (unregulated),		
Isolation	1 kV		
Redundant Power Inputs	Yes, with one power relay (1 A @ 24 V _{DC}) for alarm		
Capacity	1.8 A, 5 V supply to CPU and backplane; total 15 W	1.8 A, 5 V supply to CPU and backplane; 5.2 A, 5 V supply to I/O expansion slots, total 35 W	2.0 A, 5 V supply to CPU and backplane; 5.0 A, 5 V supply to I/O expansion slots, total 35 W
Consumption	14.4 W (0.6 A @ 24 V _{DC})	14.4 W (0.6 A @ 24 V _{DC})	16.8 W (0.7 A @ 24 V _{DC})
■ General Environment			
Temperature	Operating Temperature: -25 ~ +75 °C; Storage Temperature: -30 ~ +85 °C		
Humidity	5 ~ 90% RH, non-condensing		
■ System			
CPU	AMD LX 800 processor (32-bit & 500 MHz) or compatible		
System Memory	512 MB DDR SDRAM		
Dual Battery Backup SRAM	512 KB (for 5 years data retain while power off)		
FLASH	4 GB as IDE Master		
EEPROM	16 KB; Data retention: 40 years. 1,000,000 erase/write cycles		
CF Card	1 GB (support up to 32 GB, CE6.0)		
Hardware Serial Number	Yes, 64-bit hardware unique serial number		
RTC (Real Time Clock)	Provide second, minute, hour, date, day of week, month, year		
Dual WDT	Yes, Dual Watchdog Timers		
Rotary Switch	Yes (0~9)		
DIP Switch	No	Yes, 8 bits DIP Switch	
NET ID	1~255, user-assigned by software		
■ VGA & Communication Ports			
VGA	Yes (resolution: 1600 x 1200, 1024 x 768, 800 x 600, 640 x480)		
Ethernet	RJ-45 x 2, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators) Please use NS-205/NS-208 Industrial Ethernet Switch.		
USB 2.0	2		
COM1	RS-232 (RxD, TxD and GND); non-isolated	Internal communication with I-87K modules in slots	
COM2	RS-232 (RxD, TxD and GND); non-isolated		
COM3	RS-485 (D2+, D2-); self-tuner ASIC inside; Isolation: 3000 V_{DC} ;		
COM4	RS-232/RS-485 (RxD, TxD, CTS, RTS and GND for RS-232, Data+ and Data- for RS-485); non-isolated		
COM5	RS-232 (RxD, TxD, CTS, RTS, DSR, DTR, CD, RI and GND); non-isolated		
■ I/O Expansion Slots			
Slot Number	0 slot	3 slots (slot1 ~ 3)	7 slots (slot1 ~ 7)
Hot Swap	-	For high profile I-87K modules only	



Specifications of XP-8047-CE6/ 8347-CE6/ 8747-CE6

■ Mechanical

Dimensions (W x L x H)	137 mm x 132 mm x 125 mm	231 mm x 132 mm x 125 mm	355 mm x 132 mm x 125 mm
Installation	DIN-Rail or Wall Mounting		

■ Motion

Motion Control	No	Integrate with one I-8091W (2-axis) or two I-8091W (4-axis)
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■ PWM Output

High Speed PWM Module	I-7088: 8-ch. PWM outputs, software support 1Hz ~ 100KHz(non-continuous), duty: 0.1~99.9% I-8088W: 8-ch. PWM outputs, software support 1Hz ~ 100KHz(non-continuous), duty: 0.1 ~ 99.9% I-87088W: 8-ch. PWM outputs, software support 1Hz~100KHz(non-continuous), duty: 0.1 ~ 99.9%	
DO Module as PWM	8-ch max. 250 Hz max. For Off=2 & On=2 ms. Output square wave: Off: 2~32766 ms, On: 2 ~ 32766 ms. Optional DO Boards: I-8037W, 8041W, 8041AW, 8042W, 8050W, 8054W, 8055W, 8056W, 8057W, 8060W, 8063W, 8064W, 8068W, 8069W (Relay Output boards can not generate fast square wave.)	

■ Counter, Encoder, Frequency

Parallel DI Counter	8 ch. max. for 1 controller. Counter val: 32 bit. 250 Hz max. Min. ON & OFF width must > 2 ms. Optional DI Boards: I-8040W, 8040PW, 8042W, 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 remote 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. 4 MHz for pulse/direction and cw/ccw input mode. (FAQ-112) I-8084W: 250 kHz max. , 4-ch encoder, can be pulse/direction, or up/down or A/B phase (Quad. mode), No support Encoder Z-index. (FAQ-100)	
Frequency	I-87082W: 2-ch, 1 Hz ~ 100 kHz; I-8084W: 8-ch, 1 Hz ~ 250 kHz;	

■ Protocols

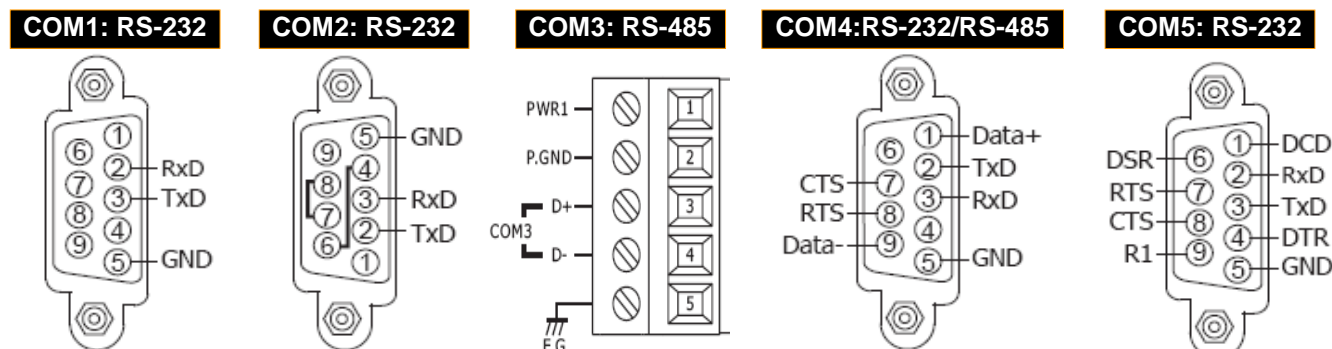
Modbus TCP Master	Link to max. 100 devices that support Standard Modbus TCP/IP Slave protocol (FAQ-113)	
Modbus RTU/ ASCII Master (Multi-Port)	Max. 33 COM Ports (COM1 ~ 5 and COM6 ~ 33 if multi-serial port boards are plugged in slot1~7) can support multi-ports of Modbus RTU/ASCII Master protocol to connect to other Modbus Slave devices. (XP-8347-CE6/8747-CE6's COM1 is for internal communication with I-87K modules in slots only.)	
Modbus RTU Slave	Max. 9 COM Ports (COM1 ~ 33) can support Modbus RTU Slave protocol for connecting ISaGRAF, PC/HMI/OPC Server & HMI panels. (XP-8347-CE6/8747-CE6's COM1 is for internal communication with I-87K modules in slots only.)	
Modbus TCP/IP Slave	2 Ethernet Ports all support Modbus TCP/IP Slave protocol for connecting ISaGRAF & PC/HMI. 2 Ports support up to 64 connections. (If PAC uses 1 connection to connect each PC/HMI, it can connect up to 64 PC/HMI; If PAC uses 2 connections to connect each PC/HMI, it can connect up to 32 PC/HMI; ...) When one Ethernet port is broken, the other one can still connect to PC/HMI.	
Web HMI	Ethernet Ports for connecting PC running Internet Explorer	
I-7000 & I-87K RS-485 Remote I/O	One of COM3~4 supports I-7000 I/O modules, I-87K base + I-87K Serial I/O boards or RU-87Pn + I-87K High Profile I/O boards as remote I/O. Max. 255 modules of I-7000/87K Remote I/O for one PAC.	
M-7000 Series Modbus I/O	Max. 33 RS-485 ports (COM1 ~ 5 & COM6 ~33 if multi-serial port boards are plugged in) can support M-7000 series Modbus I/O. Each port can connect up to 32 M-7000 Modules. (XP-8347-CE6 / 8747-CE6's COM1 is for internal communication with I-87K modules in slots only)	
Modbus TCP/IP I/O	LAN2 supports ICP DAS Ethernet I/O : I-8KE4-MTCP and I-8KE8-MTCP (listed at FAQ-042) If LAN2 is broken, it will switch to LAN1 automatically to continuously work. (This need LAN1 & LAN2's IP are set in the same IP domain)	
FRnet I/O	Support max 7 pcs. I-8172W boards in slot 1 ~ 7 to connect to FRnet I/O modules, like FR-2053, FR-2057 FR-32R, FR-32P. (FAQ-048) Each I-8172W board can link max. 256 DI plus 256 DO ch.	
Send E-mail	Supports mail_snd and mail_set functions to send email with one attached file via Ethernet port.	
Ebus	To exchange data between ICP DAS's ISaGRAF Ethernet PACs via Ethernet port. (LAN2 Port only)	
SMS: Short Message Service	COM4 or COM5 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 Modems: GTM-201-RS232 (External Modem: 850/900/1800/1900 GSM/GPRS)	



Specifications of XP-8047-CE6/ 8347-CE6/ 8747-CE6

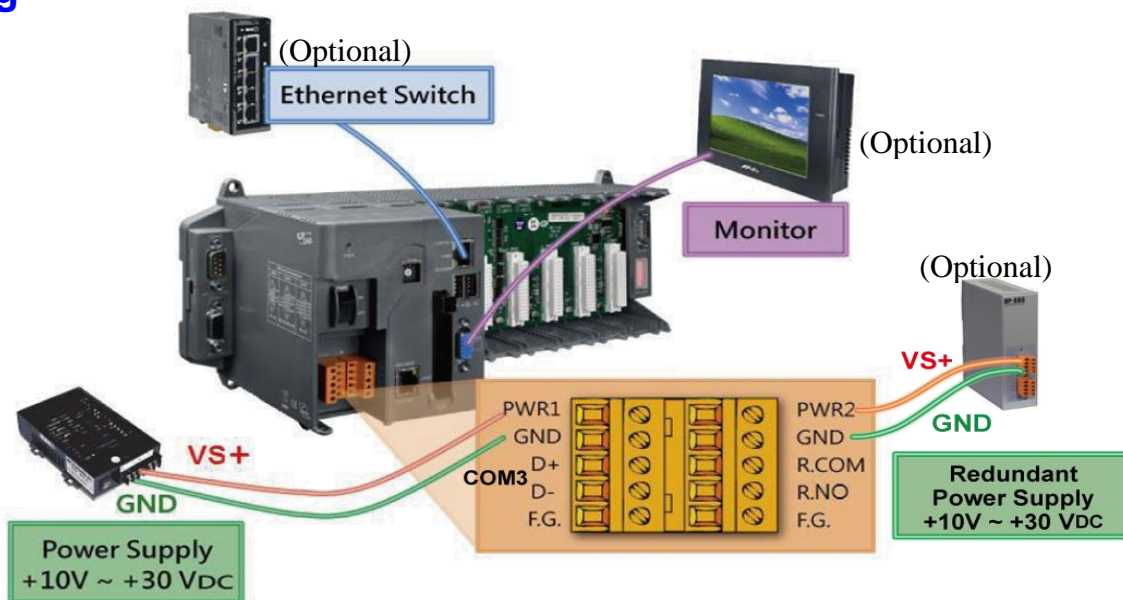
User-Defined Protocol	User can write his own protocol applied at <u>COM1~COM5</u> & <u>COM6~COM33</u> (if multi-serial port boards are plugged in) by Serial communication function blocks. (XP-8347-CE6 / 8747-CE6's COM1 is for internal communication with I-87K modules in slots only)
MMICON/LCD	<u>COM4</u> or <u>COM5</u> supports ICP DAS's MMICON. The MMICON is featured with a 240 x 64 dot LCD & a 4 x 4 Keyboard to display picture, string, integer, float, & input a char, string, integer & float.
UDP Server & UDP Client : Exchange Message & Auto-Report	LAN1 or LAN2 support UDP Server and UDP Client protocol to send/receive message to / from PC/HMI or other devices. For example, to automatically report data to InduSoft's RXTX driver.
TCP Client : Exchange Message & Auto-Report	LAN1 or LAN2 support TCP Client protocol to send / receive message to / from PC/HMI or other devices which support TCP server protocol. For example, to automatically report data to InduSoft's RXTX driver, or to connect a local camera.
New Hot-Swap and Redundant System	This redundant system has setup two "Active IP" address point to the active LAN1 and LAN2 ports always. One or more PC/HMI/SCADA can communicate with this redundant system via one of the two given active IP. So the PC/HMI/SCADA can access to the system easily without any notice about which PAC is currently active. Moreover, the new redundant system can integrate with the RU-87P4/87P8 Expansion Unit plus the I-87K high-profile I/O cards to support the hot-swap application. If the I/O card is damaged, the maintenance person just takes one good-card with same model number to hot-swap the damaged one without stopping this redundant system. (FAQ-093)
CAN/ CANopen	COM1, 2, 4, 5 or <u>COM6~COM33</u> resides at the I-8112iW/ 8114W/ 8114iW RS-232 expansion board to connect one I-7530 (converter: RS-232 to CAN) to support CAN/CANopen devices and sensors. One PAC supports max. 32 RS-232 ports to connect max. 32 I-7530. (FAQ-086) (XP-8347-CE6 / 8747-CE6's COM1 is for internal communication with I-87K modules in slots only)

Pin assignment

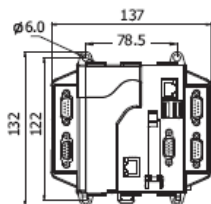


* Note: Pin assignment of COM1:RS-232 is for XP-8047-CE6/XP-8047-CE6-PRO only. XP-8347-CE6 / 8747-CE6's COM1 is for internal communication with I-87K modules in slots only.

Wiring



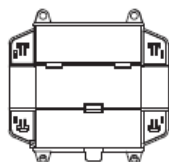
► Mechanical Drawing (Unit: mm)

XP-8047-CE6
XP-8047-CE6-PRO

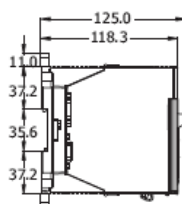
Front View



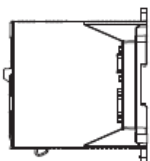
Bottom View



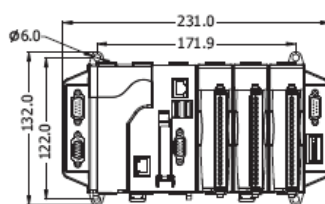
Back View



Left Side View



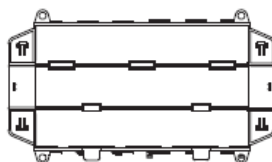
Right Side View

XP-8347-CE6
XP-8347-CE6-PRO

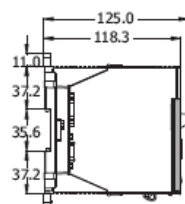
Front View



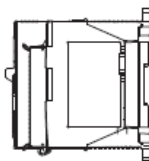
Bottom View



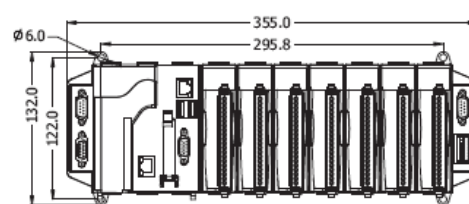
Back View



Left Side View



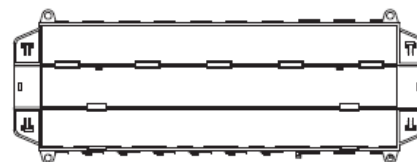
Right Side View

XP-8747-CE6
XP-8747-CE6-PRO

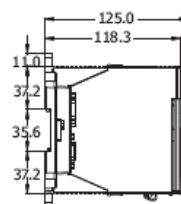
Front View



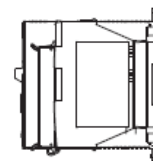
Bottom View



Back View



Left Side View



Right Side View

► I/O Modules Selection Guide For XP-8xx7-CE6 Series

High Speed Local I/O Modules: **Parallel Bus**I-8K High Profile Modules: More at www.icpdas.com > Products > PAC - 8K & 87K I/O Modules

I-8K Analog I/O Modules

I-8014W	16-bit 250K sampling rate 8/16-ch. analog input module (The scan rate cannot reach 250K when using in the ISaGRAF PAC)
I-8017HW	8-ch. Diff. or 16-ch. Single-ended, 14-bit, High Speed Analog Input Module (current input require external 125 Ω resistor) (The scan rate cannot reach 100K when using in the ISaGRAF PAC).
I-8024W	4-ch. Isolated Analog Output Module (+/-10 V, 0 ~ +20 mA)

I-8K Digital I/O Modules

I-8037W	16-ch. Isolated Open Collector Output Module
I-8040W	32-ch. Isolated Digital Input Module
I-8040PW	32-ch. Isolated Digital Input with Low Pass Filter Module
I-8041W	32-ch. Isolated Open Collector Digital Output Module (Sink)
I-8041AW	32-ch. Isolated Open Collector Digital Output Module (Source)



I/O Modules Selection Guide For XP-8xx7-CE6 Series

I-8042W	16-ch. Isolated Digital Input & 16-ch. Isolated Open Collector Digital Output Module
I-8046W	16-ch. Isolated Digital Input Module
I-8050W	16-ch. Universal Digital I/O Module
I-8051W	16-ch. Non-isolated Digital Input Module
I-8052W	8-ch. Differential Isolated Digital Input Module
I-8053W	16-ch. Isolated Digital Input Module
I-8053PW	16-ch. Isolated Digital Input with Low Pass Filter Module
I-8054W	8-ch. Isolated Digital Input Module & 8-ch. Isolated Open Collector Digital Output Module
I-8055W	Non-isolated 8-ch. Digital Logic Input Module & 8-ch. Open Collector Digital Output Module
I-8056W	16-ch. Non-isolated Open Collector Output Module
I-8057W	16-ch. Isolated Open Collector Output Module
I-8058W	8-ch. Differential Isolated Digital Input Module, Max. AC/DC Input : 250V
I-8060W	6-ch. Relay Output Module, AC: 0.6 A @ 125 V , 0.3 A @ 250 V; DC: 2 A @ 30 V
I-8063W	4-ch. Diff. Isolated digital input & 4-ch. Relay output module, AC : 0.6 A @ 125 V ; 0.3 A @ 250 V
I-8064W	8-ch. Power Relay Output Module, AC: 5 A @ 250 V, DC: 5 A @ 30 V
I-8068W	4-ch. Form-A, 5 A @ 250 V _{AC} /28 V _{DC} & 4-ch. Form-C, 5 A (NO) /3 A (NC) @ 277 V _{AC} /30 V _{DC} Relay Output Module
I-8069W	8-ch. PhotoMOS Relay Output Module, Max. AC/DC: 1 A @ 60 V
I-8K Counter/ Frequency Modules	
I-8084W	4/8-ch. Counter/Frequency Module, Isolated or TTL level. (Can measure 4-ch Encoder without Z-index)
I-8088W	8-ch. PWM Output and 8-ch. isolated DI Module, software support 1 Hz ~ 100 kHz (non-continuous)
I-8K Motion Modules	
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-8090W	3-axis Encoder Module
I-8091W	2-axis Stepping/Servo Motor Control Card without encoder input
I-8K Communication Modules	
I-8112iW	2-ch. isolated RS-232 expansion module
I-8114W	4-ch. non-isolated RS-232 expansion module
I-8114iW	4-ch. isolated RS-232 expansion module
I-8142iW	2-ch. isolated RS-422/485 expansion module
I-8144iW	4-ch. isolated RS-422/485 expansion module
I-8172W	2-port FRnet module

RS-485 Remote I/O Modules: Serial Interface; HOT-SWAP

I-87K High Profile Modules: More at www.icpdas.com > Products > PAC - 8K & 87K I/O Modules

I-87K Analog I/O Modules	
I-87005W	8-ch. Thermistor input and 8-ch. digital output module
I-87013W	4-ch. , 16-bit, 10 Hz (Total), 2/3/4 Wire RTD Input Module with Open Wire Detection
I-87015W	7-ch. , 16-bit, 12 Hz (Total), RTD Input Module with Open Wire Detection (for short sensor distance)
I-87015PW	7-ch. RTD Input Module with 3-wire RTD lead resistance elimination and with Open Wire Detection (for long sensor distance)
I-87017RW	8-ch. Differential , 16/12-bit, 10/60 Hz (Total) Analog Input Module with 240 V _{rms} Over Voltage Protection, Range of -20 ~ +20 mA Requires Optional External 125 Ω Resistor
I-87017RCW	8-ch. Differential , 16/12-bit, 10/60 Hz(Total) Current Input Module
I-87017W	8-ch. Analog Input Module
I-87017W-A5	8-ch. High Voltage Input Module
I-87018RW	8-ch. Thermocouple Input Module. Recommend to use the better I-87018ZW.
I-87018W	8-ch. Thermocouple Input Module. Recommend to use the better I-87018ZW.
I-87018ZW	10-ch. Differential , 16-bit, 10 Hz (Total), Thermocouple Input Module with 240 V _{rms} Over Voltage Protection, Open Wire Detection, Range of +/-20 mA, 0~20 mA, 4~20 mA requires Optional External 125 Ω Resistor
I-87019RW	8-ch. Diff. , 16-bit, 8 Hz (Total), Universal Analog Input Module with 240 V _{rms} Over Voltage Protection, Open Wire Detection (V, mA, Thermocouple; Range of -20 ~ +20 mA need to set Jumper on board)
I-87024CW	4-ch. 12-bit channel to channel isolated current output module with open-wire detection
I-87024W	4-ch. 14-bit analog output module (0 ~ +5 V, +/-5 V, 0 ~ +10 V, +/-10 V, 0 ~ +20 mA, +4 ~ +20 mA)
I-87028CW	8-ch. 12-bit current output module

I-87K Digital I/O Modules

I-87040W	32-ch. Isolated Digital Input Module
I-87041W	32-ch. Sink Type Open Collector Isolated Digital Output Module
I-87046W	16-ch. Non-Isolated Digital Input Module for Long Distance Measurement
I-87051W	16-ch. Non-Isolated Digital Input Module
I-87052W	8-ch. Differential , Isolated Digital Input Module
I-87053PW	16-ch. Isolated Digital Input Module with 16-bit Counters
I-87053W	16-ch. Isolated Digital Input Module
I-87053W-A5	16-ch. 68 ~ 150 V _{DC} Isolated Digital Input Module
I-87054W	Isolated 8-ch. DI and 8-ch. Open Collector DO Module
I-87055W	Non-Isolated 8-ch. DI and 8-ch. Open Collector DO Module
I-87057W	16-ch. Open Collector Isolated Digital Output Module
I-87058W	8-ch. 80~250 V _{AC} Isolated Digital Input Module
I-87059W	8-ch. Differential 10-80 V _{AC} Isolated Digital Input Module
I-87061W	16-ch. Relay Output Module (RoHS)
I-87063W	4-ch. Differential Isolated Digital Input and 4-ch. Relay Output Module. 5 A (NO) / 3 A(NC) @ 5 ~ 24 V _{DC} ; 5 A(NO) / 3 A(NC) @ 0 ~ 250 V _{AC}
I-87064W	8-ch. Relay Output Module, 5 A (47~63 Hz) @ 0~ 250 V _{AC} ; 5 A @ 0~ 30 V _{DC}
I-87065W	8-ch. AC SSR Output Module, AC: 1.0 A _{rms} @ 24 ~ 265 V _{rms}
I-87066W	8-ch. DC SSR Output Module , DC: 1.0 A _{rms} @ 3 ~ 30 V _{DC}
I-87068W	4-ch. Form-A Relay Output and 4-ch. Form-C Relay Output Module. Form-A: 8 A @ 250 V _{AC} ; 8 A @ 28 V _{DC} . Form-C: 5 A (NO) / 3 A (NC) @ 277 V _{AC} ; 5 A(NO) / 3 A(NC) @ 30 V _{AC}
I-87069W	8-ch. PhotoMOS Relay Output Module, Max. AC/DC: 0.13 A @ 350 V

I-87K Counter/Frequency Modules

I-87082W	2-ch. Counter/Frequency Module, Isolated or Non-isolated Inputs
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I-87K PWM Module

I-87088W	8-ch. PWM outputs, software support 1 Hz ~ 100 KHz, (non-continuous), duty: 0.1 ~ 99.9%
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I-87K GPS Module

I-87211W	Time-Synchronization and GPS module for getting UTC/local time and local Longitude/Latitude
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RS-485 Remote I/O Modules

I-7000	 Products > Remote I/O Modules/Units > I-7000 Modules > Selection Guide">www.icpdas.com > Products > Remote I/O Modules/Units > I-7000 Modules > Selection Guide
M-7000	 Products > Remote I/O Modules/Units > M-7000 Modules > Selection Guide">www.icpdas.com > Products > Remote I/O Modules/Units > M-7000 Modules > Selection Guide

RS-485 Remote Hot-Swap Expansion Unit

RU-87P1/2/4/8	 Products > Remote I/O Modules/Units > Remote I/O Expansion Unit > Selection Guide">www.icpdas.com > Products > Remote I/O Modules/Units > Remote I/O Expansion Unit > Selection Guide
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RS-485 Remote Expansion Unit

I-87K1/4/5/8/9	 Products > Remote I/O Modules/Units > Remote I/O Expansion Unit > Selection Guide">www.icpdas.com > Products > Remote I/O Modules/Units > Remote I/O Expansion Unit > Selection Guide
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► Ordering Information

XP-8047-CE6 CR	0 I/O slot WinCE 6.0 Based ISaGRAF PAC (OS: Multi-Language version) (RoHS)
XP-8347-CE6 CR	3 I/O slots WinCE 6.0 Based ISaGRAF PAC (OS: Multi-Language version) (RoHS)
XP-8747-CE6 CR	7 I/O slots WinCE 6.0 Based ISaGRAF PAC (OS: Multi-Language version) (RoHS)
XP-8047-CE6-PRO CR	0 I/O slot WinCE 6.0 Based ISaGRAF PAC (OS: Professional Multi-Language version) (RoHS)
XP-8347-CE6-PRO CR	3 I/O slots WinCE 6.0 Based ISaGRAF PAC (OS: Professional Multi-Language version) (RoHS)
XP-8747-CE6-PRO CR	7 I/O slots WinCE 6.0 Based ISaGRAF PAC (OS: Professional Multi-Language version) (RoHS)

► Accessories

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-256-E	ISaGRAF Workbench Software Ver.3 (256 I/O Tags) with USB Dongle and English application book
ISaGRAF-256-C	ISaGRAF Workbench Software Ver.3 (256 I/O Tags) with USB Dongle and Chinese application book
ISaGRAF-32-E	ISaGRAF Workbench Software Ver.3 (32 I/O Tags) with English application book (Note)
ISaGRAF-32-C	ISaGRAF Workbench Software Ver.3 (32 I/O Tags) with Chinese application book (Note)
ISaGRAF Book-E	ISaGRAF application book (English version)
ISaGRAF Book-C	ISaGRAF application book (Chinese version)
NS-205/NS-208 CR	Unmanaged 5-port/8-port Industrial 10/100 Ethernet Switch with Plastic Case (RoHS)