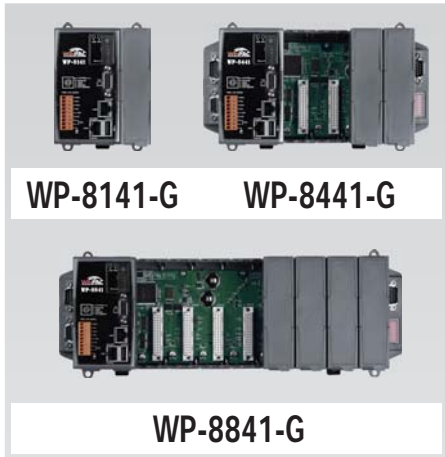


# WP-8141/8441/8841

Windows CE.Net 5.0 Based PAC (Programmable Automation Controller)

WinPAC-8000 Series Programmable Automation Controller WP-8141/ WP-8441/ WP-8841



**Highlight Information**

- PXA 270 CPU (32-bit & 520 MHz)
- 128 SDRAM & 48 MB Flash
- VS.Net 2003/2005/2008 & eVC Supported
- 64-bit Hardware Serial Number for Software Protection
- 1/4/8 Slots for High Profile I/O Modules
- Dual 10/100M Ethernet Ports
- 2/4 Serial Ports (RS-232/485)
- -25 °C ~ +75 °C Operating Range

## ● Introduction

The ICP DAS WP-8141, WP-8441 and WP-8841 are the new generation PAC (Programmable Automation Controller). They equip a PXA270 CPU (520MHz) running a Windows CE.NET 5.0 operating system, variant connectivity (VGA, USB, Ethernet, RS-232/485) and 1/4/8 slots for high performance parallel I/O modules (high profile I-8K I/O series) and serial-type I/O modules (high profile I-87K I/O modules).

The WP-8141, WP-8441 and WP-8841 have many advantages, including hard real-time capability, small core size, fast boot speed, interrupt handling at a deeper level, achievable deterministic control and low cost. Using Windows CE.NET 5.0 gives them the ability to run PC-based control software such as Visual Basic.NET, Visual C#, Embedded Visual C++, SCADA software, Soft PLC ...etc. They give you all of the best features of both traditional PLCs and Windows capable PCs.

## ● Features

### Software

- Windows CE.NET 5.0 Operating System
- Easy Remote Maintenance Via Ethernet
  - FTP server
  - VCEP software
- Built-In OPC Server: Quicker
  - An OPC Server & SCADA Software
  - Integrate Local/Remote I/O Modules Via RS-232/485 or Ethernet
  - Provide Library for eVC, C# or VB.NET
  - Support Modbus and DCON Protocols
- Development Software
  - Visual Studio.NET 2003/2005/2008 and eVC
  - SDK/Demo Programs for C#, VB.NET & eVC
- Upgrade Applications Just Copy and Play

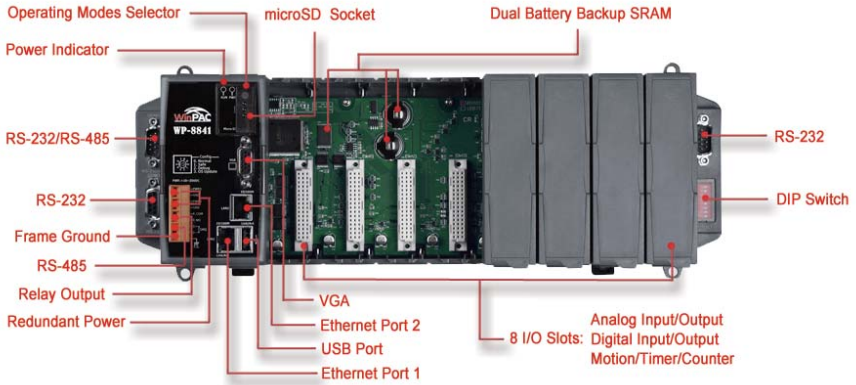
### Hardware

- Powerful CPU Module
- Built-in VGA Port
- 64-bit Hardware Serial Number for Software Protection
- Rich I/O Expansion Ability
- I/O Module Hot Swap Ability \* Will be available (For High Profile I-87K Modules Only)
- Built-In Flash Disk (15 MB)
- Dual Watchdog Timers
- Dual battery-backup SRAM (512 KB)
- Dual Ethernet Ports
- Redundant Power Inputs
- DIN Rail Mountable or Wall Mounting
- -25 °C ~ +75 °C Operating Range

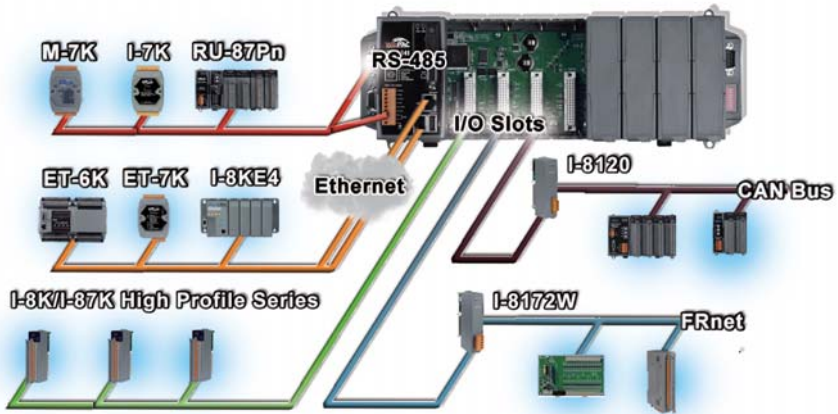
## ● Specifications

Models	WP-8141	WP-8441	WP-8841
<b>System Software</b>			
OS	Windows CE 5.0		
.Net Compact Framework	2.0		
Embedded Service	FTP server, Web server (supports VB script, JAVA script), Embedded SQL server		
SDK Provided	DII for eVC, DII for Visual Studio.Net 2003/2005/2008		
<b>CPU Module</b>			
CPU	PXA270 or compatible (32-bit and 520 MHz)		
SDRAM	128 MB		
Dual Battery Backup SRAM	512 Kbytes (for 5 years data retain)		
Flash	48 MB (32 MB for OS image, 15 MB for built-in Flash disk, 1 MB for registry)		
EEPROM	16 Kbytes		
	Data Retention: 40 years; 1,000,000 erase/write cycles		
Expansion Flash Memory	microSD socket with one 1 GB microSD card (can support 8 GB microSD card)		
RTC (real time clock)	Year-2000 compliance; seconds, minutes, hours, date of the month; month, year, valid up from 1980 to 2079		
64-bit Hardware Serial Number	Yes		
Dual Watchdog Timer	Yes		
Programmable LED Indicator	1		
Rotary Switch	Yes (0 ~ 9)		
DIP Switch	-	Yes (8 bits)	Yes (8 bits)
<b>VGA &amp; Communication Ports</b>			
VGA	1 (800 x 600 resolution)		
Ethernet Port	RJ-45 x 2, 10/100 Base-TX Ethernet Controller (Auto-negotiating, auto MDI/MDI-X, LED indicator)		
USB 1.1 (host)	1		
COM 0	Internal communication with I-87K modules in slots		
COM 1	RS-232 (to update firmware) (RXD, TXD, and GND); Non-isolation		
COM 2	RS-485 (D2+, D2-; self-tuner ASIC inside); 3000 V <sub>DC</sub> isolation		
COM 3	-	RS-232/RS-485 (RXD, TXD, CTS, RTS and GND for RS-232, Data+ and Data- for RS-485); Non-isolation	
COM 4	-	RS-232 (RXD, TXD, CTS, RTS, DSR, DTR, CD, RI and GND); Non-isolation	
<b>I/O Expansion Slots</b>			
Slot Number	1 slot	4 slots	8 slots
	(for high profile I-8K and I-87K module only)		
Hot Plug * Will be available	I/O Module Hot Swap Ability (For High Profile I-87K Modules Only)		
<b>Mechanical</b>			
Dimensions (W x L x H, Unit: mm)	95 x 132 x 111	231 x 132 x 111	355 x 132 x 111
Installation	DIN-Rail or Wall Mounting		
<b>Environmental</b>			
Operating Temperature	-25 °C ~ +75 °C		
Storage Temperature	-30 °C ~ +85 °C		
Ambient Relative Humidity	5% ~ 90% RH, non-condensing		
<b>Power</b>			
Input Range	+10 V <sub>DC</sub> ~ +30 V <sub>DC</sub>		
Isolation	1 kV		
Redundant Power Inputs	Yes, with one power relay (1 A @ 24 V <sub>DC</sub> ) for alarm		
Capacity	1.0A, 5V supply to CPU and backplane, 0.6A, 5V supply to I/O expansion slots, total 8 W	1.1A, 5V supply to CPU and backplane, 4.9A, 5V supply to I/O expansion slots, total 30 W	1.2A, 5V supply to CPU and backplane, 4.8A, 5V supply to I/O expansion slots, total 30 W
Consumption	7.3 W (0.3 A @ 24 V <sub>DC</sub> )	9.1 W (0.38 A @ 24 V <sub>DC</sub> )	9.6 W (0.4 A @ 24 V <sub>DC</sub> )

● Appearance

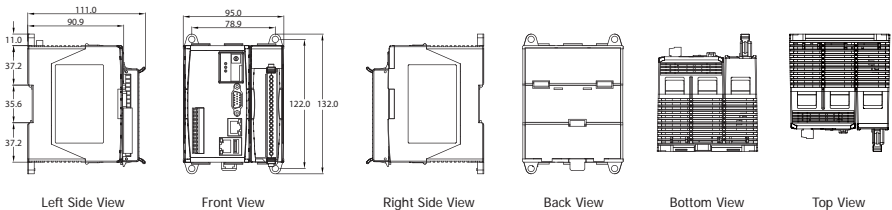


● Rich I/O Expansion Ability

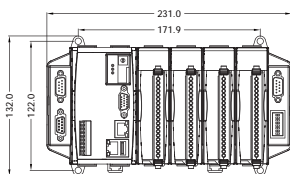


● Dimensions (Unit: mm)

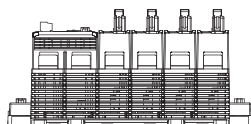
WP-8141



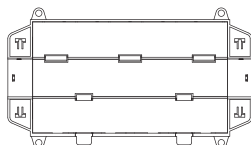
WP-8441



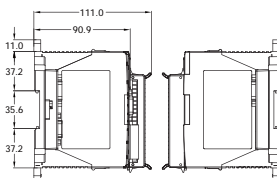
Front View



Bottom View



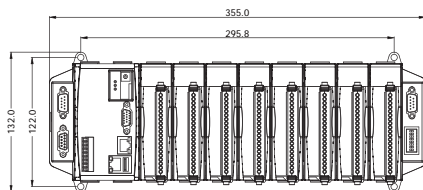
Back View



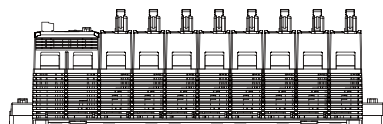
Left Side View

Right Side View

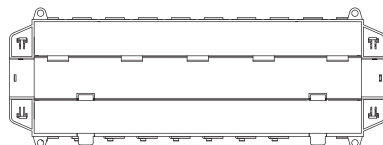
WP-8841



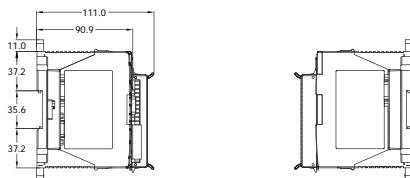
Front View



Bottom View



Back View



Left Side View

Right Side View

## Ordering Information

WP-8141-EN-G	Standard WinPAC-8000 with 1 I/O Slot (English Version of OS)
WP-8441-EN-G	Standard WinPAC-8000 with 4 I/O Slots (English Version of OS)
WP-8841-EN-G	Standard WinPAC-8000 with 8 I/O Slots (English Version of OS)
WP-8141-TC-G	Standard WinPAC-8000 with 1 I/O Slot (Traditional Chinese Version of OS)
WP-8441-TC-G	Standard WinPAC-8000 with 4 I/O Slots (Traditional Chinese Version of OS)
WP-8841-TC-G	Standard WinPAC-8000 with 8 I/O Slots (Traditional Chinese Version of OS)
WP-8141-SC-G	Standard WinPAC-8000 with 1 I/O Slot (Simplified Chinese Version of OS)
WP-8441-SC-G	Standard WinPAC-8000 with 4 I/O Slots (Simplified Chinese Version of OS)
WP-8841-SC-G	Standard WinPAC-8000 with 8 I/O Slots (Simplified Chinese Version of OS)

## Accessories

DP-660	AC 85 ~ 270 V Input, DC 24V/2.5A and 5V/0.5A Output Power Supply
DP-1200	AC 85 ~ 270 V Input, DC 24V/2.5A and 5V/0.5A Output Power Supply
MDR-20-24	24V/1.0A, 24 W Power Supply with DIN-Rail Mounting
MDR-60-24	24V/2.5A, 60 W Power Supply with DIN-Rail Mounting