



## WP-9221-CE7/WP-9421-CE7/WP-9821-CE7

2/4/8-slot Metal Standard PAC with Cortex-A8 CPU and WinCE 7.0

### Features

- Windows CE 7.0
- Cortex-A8, 1 GHz CPU
- 512 MB SDRAM and 256 MB Flash
- Hard Real-Time Capability
- 64-bit Hardware Serial Number for Software Protection
- Rich I/O Expansion Ability (RS-232/RS-485, FRnet)
- Redundant Power Input
- Operating Temperature: -25 ~ +75 °C



### Introduction

The WP-9000-CE7 is the new generation Windows CE 7.0 based PAC (Programmable Automation Controller) of ICP DAS. Each WP-9000-CE7 is equipped with a Cortex-A8 (1.0 GHz) CPU running a Windows CE 7.0 operating system, a variant of input/output ports (VGA, USB, Ethernet, RS-232/485), and 2/4/8 expansion I/O slots that can be used to integrate high performance I-9K (parallel-type) and I-97K (serial-type) series I/O modules.

Its operating system, Windows CE 7.0, has 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 7.0 in the WP-9000-CE7 gives it the ability to run PC-based Control software such as Visual Basic.NET, Visual C#, Visual C++, SCADA software, Soft PLC ...etc.

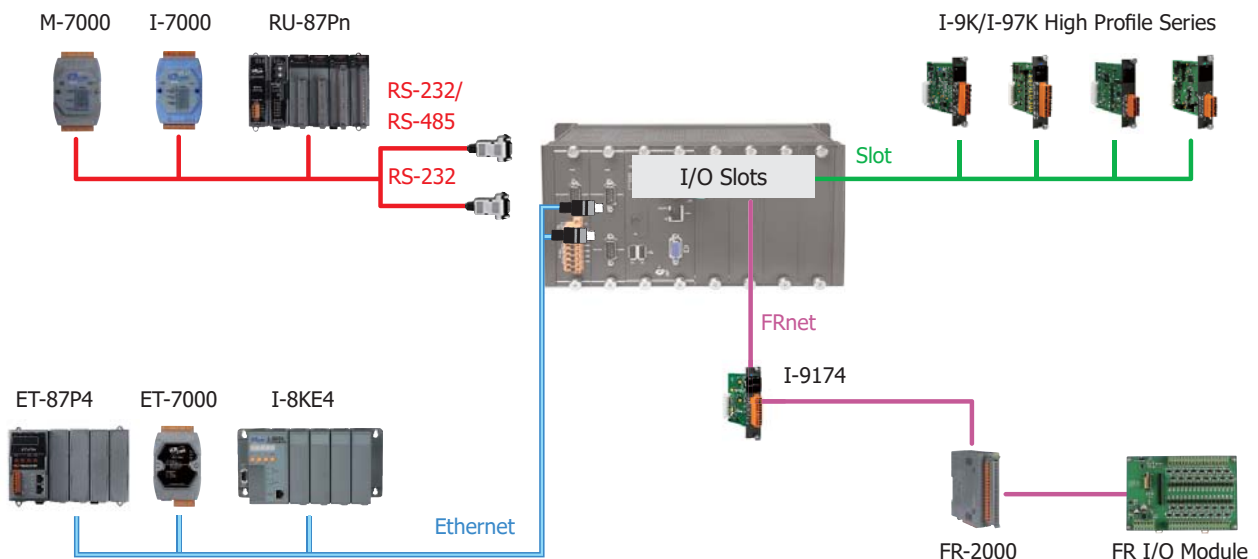
### Windows CE 7.0



Windows CE 7.0 is a compact and real-time OS used to quickly create time critical and high performance applications. Using Windows CE 7.0 gives an ability to run PC-based control software such as Visual Basic .NET, Virtual C#.

- FTP Server
- Web Server
- SQL Compact Edition 3.5
- .NET Compact Framework 3.5
- Virtual CE Pro (VCEP)

### Applications

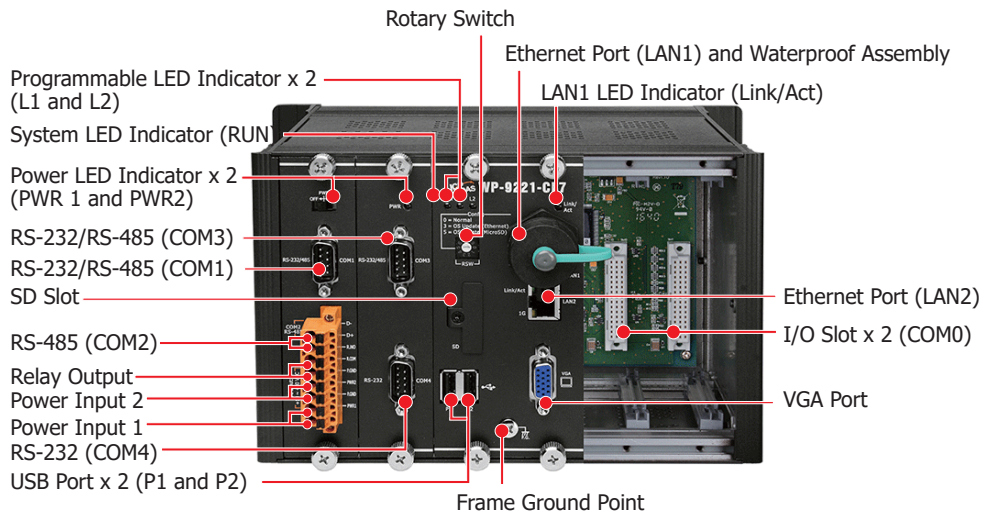


## Specifications

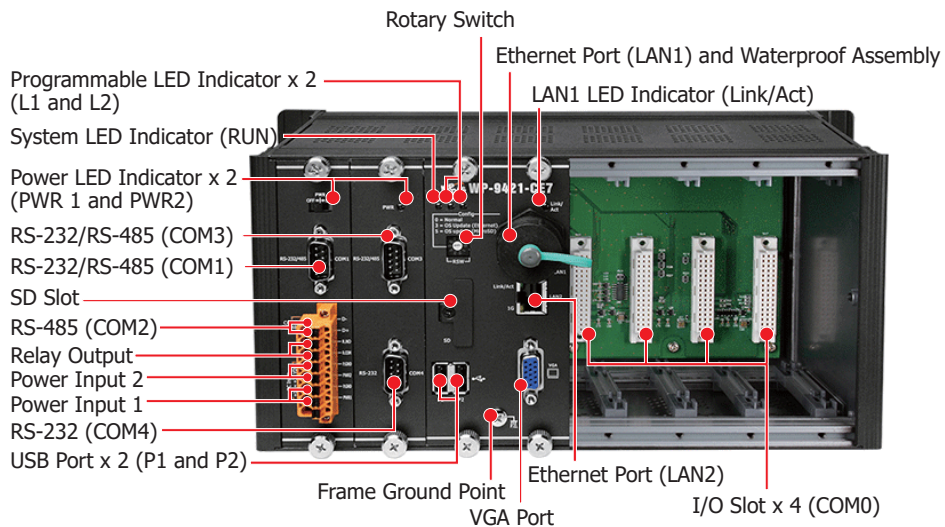
Model	WP-9221-CE7	WP-9421-CE7	WP-9821-CE7
<b>Software</b>			
OS	Windows CE 7.0		
Framework Support	.Net Compact Framework 3.5		
Service	FTP Server, Web Server (Supports VB script, JAVA script), Embedded SQL Server		
SDK	DII for VC, DII for Visual Studio.Net 2008		
Multilanguage Support	English, German, French, Spanish, Russian, Italian, Korean, Simplified Chinese, Traditional Chinese		
<b>Main Unit</b>			
CPU	Cortex-A8, 1.0 GHz		
SDRAM	512 MB DDR3		
MRAM	128 KB		
Flash	256 MB		
EEPROM	16 KB		
Storage	4 GB SD card (up to 32 GB)		
RTC (Real Time Clock)	Provide seconds, minutes, hours, dates, day of week, month, year		
64-bit Hardware Serial Number	Yes, for software copy protection		
Watchdog Timer	Dual Watchdog Timer		
Rotary Switch	1 x 10 Position (0 ~ 9)		
Buzzer	Yes		
<b>Display</b>			
VGA Resolution	800 × 600, 1024 × 768		
LED Indicators	1 x System, 2 x Power, 2 x Programmable		
<b>Communication Interfaces</b>			
Ethernet	2 x RJ-45, 10/100/1000 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)		
USB 2.0	2		
COM 0	Internal communication with the I-97K series modules in slots		
COM 1	RS-232/485 (RxD, TxD and GND for RS-232; Data+, Data- for RS-485); 3000 VDC isolated		
COM 2	RS-485 (Data+, Data-); 3000 VDC isolated		
COM 3	RS-232/485 (RxD, TxD, CTS, RTS and GND for RS-232; Data+, Data- for RS-485); 3000 VDC isolated		
COM 4	RS-232 (RxD, TxD, CTS, RTS, DSR, DTR, CD, RI and GND); 3000 VDC isolated		
<b>I/O Expansion</b>			
I/O Type	I-9K, I-97K series		
Slots	2	4	8
<b>Mechanical</b>			
Dimension (W x L x H)	239 mm x 133 mm x 164 mm	300 mm x 133 mm x 164 mm	422 mm x 133 mm x 164 mm
Ingress Protection Rating	IP30 (Aluminum)		
Installation	DIN-Rail, Wall mounting		
<b>Environmental</b>			
Operating Temperature	-25 ~ +75 °C		
Storage Temperature	-30 ~ +80 °C		
Humidity	10 ~ 90 % RH, Non-condensing		
<b>Power</b>			
Input Range	+10 ~ 30 VDC (1 kV Isolated)		
Redundant Power Inputs	Yes, with one power relay (1 A @ 24 VDC) for alarm		
Capacity	1.5 A, 5 V supply to CPU and backplane; 6.5 A, 5 V supply to I/O expansion slots, total 40 W		
Consumption	10.8 W (0.45 A @ 24 VDC)		

## Appearance

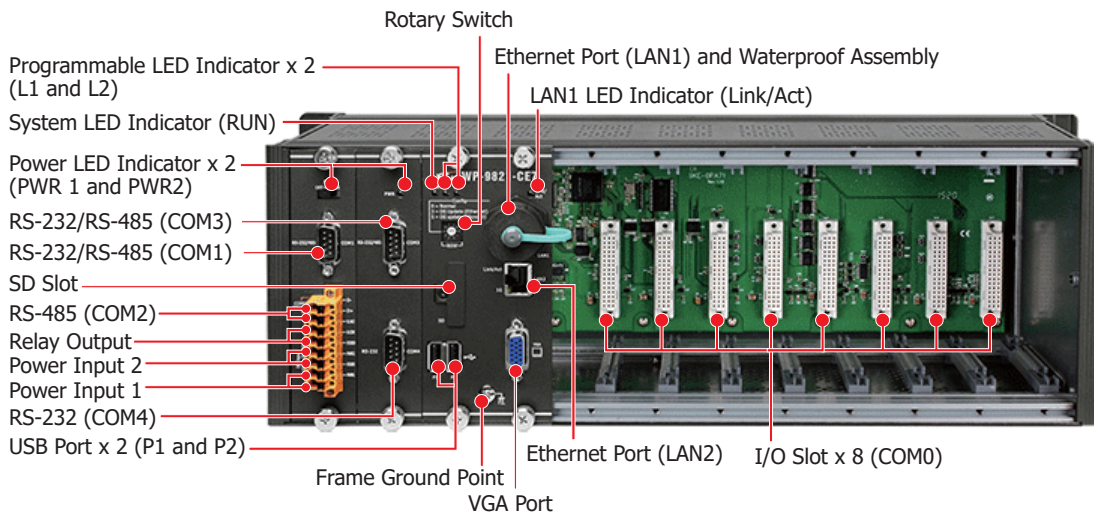
### WP-9221-CE7



### WP-9421-CE7

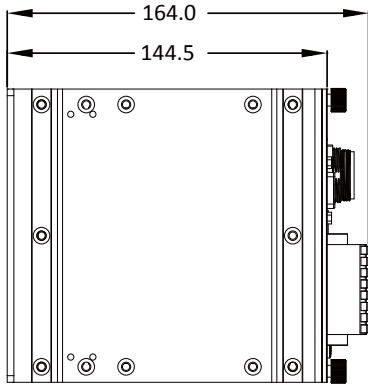


### WP-9821-CE7



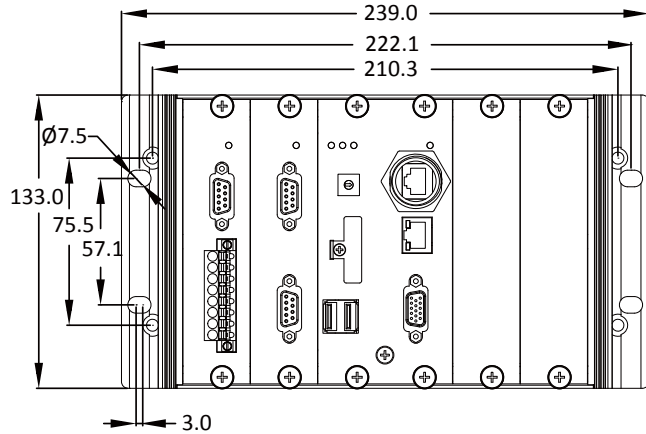
## ■ Dimensions (Units: mm)

**WP-9221-CE7/WP-9421-CE7/WP-9821-CE7**



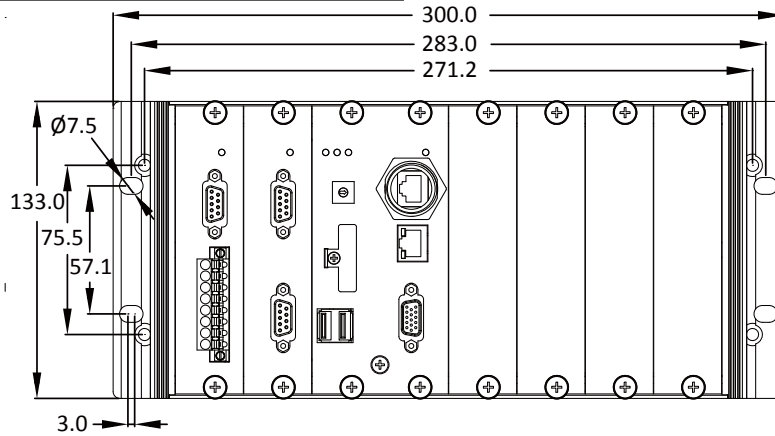
Left Side View

**WP-9221-CE7**



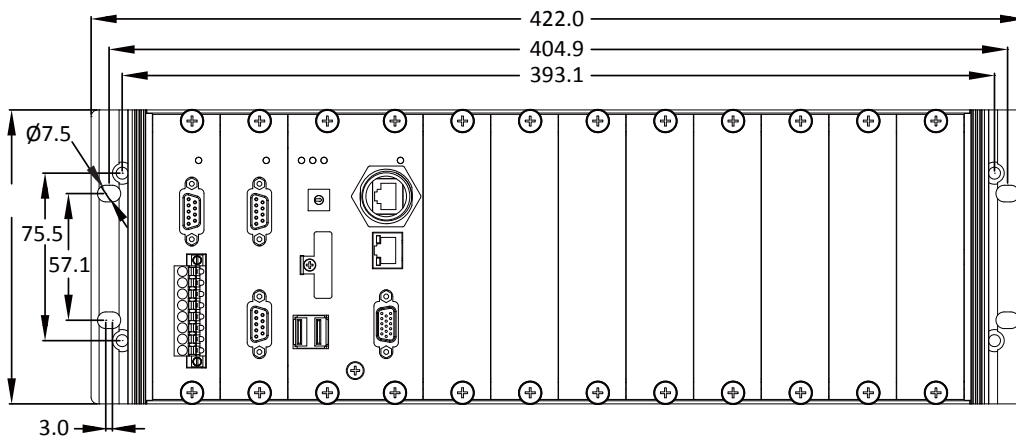
Front View

**WP-9421-CE7**



Front View

**WP-9821-CE7**



Front View

## ■ Ordering Information

<b>WP-9221-CE7 CR</b>	2-slot Metal Standard PAC with Cortex-A8 CPU and WinCE 7.0 (RoHS)
<b>WP-9421-CE7 CR</b>	4-slot Metal Standard PAC with Cortex-A8 CPU and WinCE 7.0 (RoHS)
<b>WP-9821-CE7 CR</b>	8-slot Metal Standard PAC with Cortex-A8 CPU and WinCE 7.0 (RoHS)