

Experience new PAC technology

Maximize business benefit with **WinPAC-8000** the most powerful control system.



WP-8441



WP-8841



Embedded Visual C++



Visual Studio.net



Windows CE.net

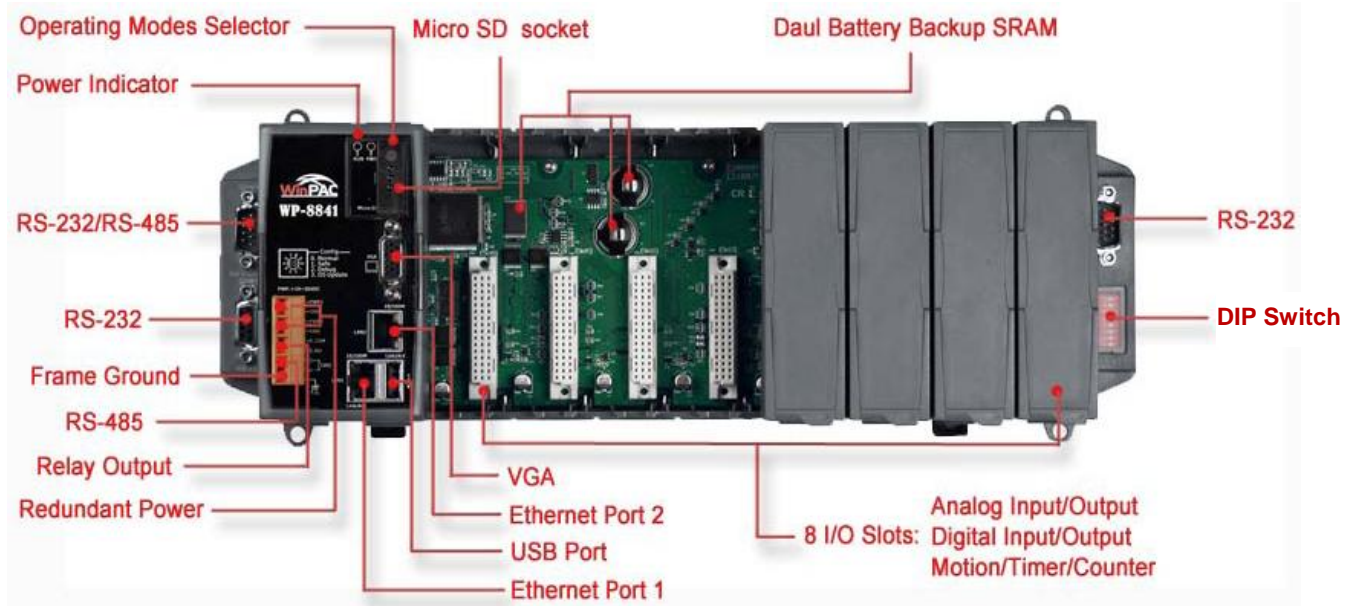


- *Windows CE.net 5.0 inside*
- *Support Microsoft Visual Basic .NET 2003/2005 Visual C# .NET 2003/2005 EVC++*
- *Power PXA270 CPU: 32-bit & 520MHz*
- *WP-8441: 4 Slots
WP-8841: 8 Slots*
- *128MB SDRAM*
- *14MB built-In Flash Disk*
- *With dual Ethernet, VGA, USB, RS-232/485 ports*
- *Dual battery backup SRAM*
- *Redundant power inputs*

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

WinPAC PAC, with operating system Windows CE 5.0, 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.Net 5.0 gives it the ability to run PC-based Control software such as Visual Basic.NET, Visual C#, Embedded Visual C++, SCADA software, Soft PLC ...etc. It gives you all of the best features of both traditional PLCs and Windows capable PCs





Hardware Features:

- **Powerful CPU Module**
 - ☑ PXA270 CPU: 32-bit & 520MHz
 - ☑ 128MB SDRAM
 - ☑ 14MB built-in Flash Disk
- **Built-in VGA Port**
- **64-bit Hardware Serial Number**
 - ☑ Protecting software & applications
- **Rich I/O Expansion Ability**
 - ☑ RS-232/485
 - ☑ Ethernet
 - ☑ FRnet
 - ☑ CAN
- **I/O module hot swap ability**
 - ☑ Plug & play
- **Built-In Flash Disk (14MB)**
 - ☑ Good in vibrational environment, e.g. driving ship
- **Dual Watchdog timers increase reliability**
 - ☑ OS watchdog
 - ☑ AP watchdog
- **Dual battery-backup SRAM (512Kbytes)**
 - ☑ Retain the data for 5 years while power off
 - ☑ Avoid data lost while replacing a new battery
- **Dual Ethernet ports**
 - ☑ Redundant Ethernet communication
 - ☑ Global Internet / private Ethernet separate system
- **Redundant Power Inputs**
 - ☑ Prevent from failing by the power loss
- **Ventilated Housing Design Allows Operation Between -25°C ~ +75°C**



Software Features:

- **Windows CE.Net 5.0**
 - ☑ FTP server
 - ☑ Http server
 - ☑ ASP (Java script, VB script)
 - ☑ SQL server embedded
 - ☑ Compact .Net framework 2.0
- **Easy Remote Maintenance via Ethernet**
 - ☑ FTP server: updating applications & data
 - ☑ VCEP software: managing the WinPAC PAC
 - ☑ VCEP can synchronize every movements (screen, keyboard and mouse actions) between the PC and the WinPAC.
- **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 developing
 - ☑ Support Modbus/RTU protocol
 - ☑ Support Modbus/ASCII protocol
 - ☑ Support Modbus/TCP protocol
 - ☑ Support DCON protocol
- **Rich Software Solutions**
 - ☑ Visual Studio .Net 2005 and eVC
 - ☑ Provide SDK/demo programs for C#, VB.Net & eVC
- **Upgrade Applications just Copy and Play**



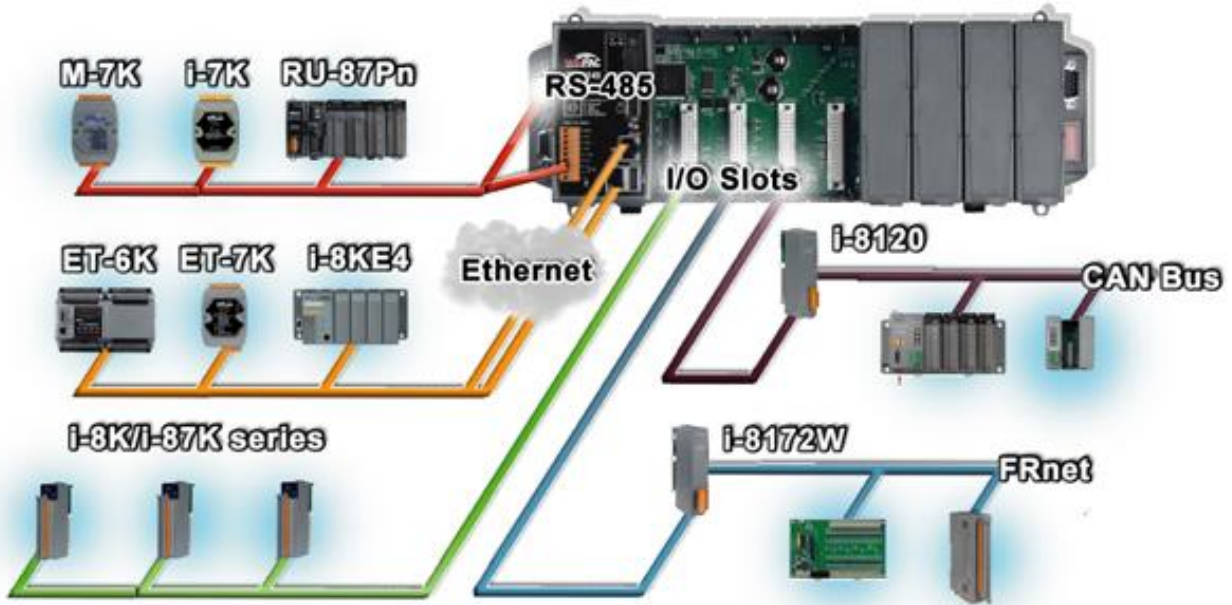
• Multiple I/O Applications

Remote I/O applications:

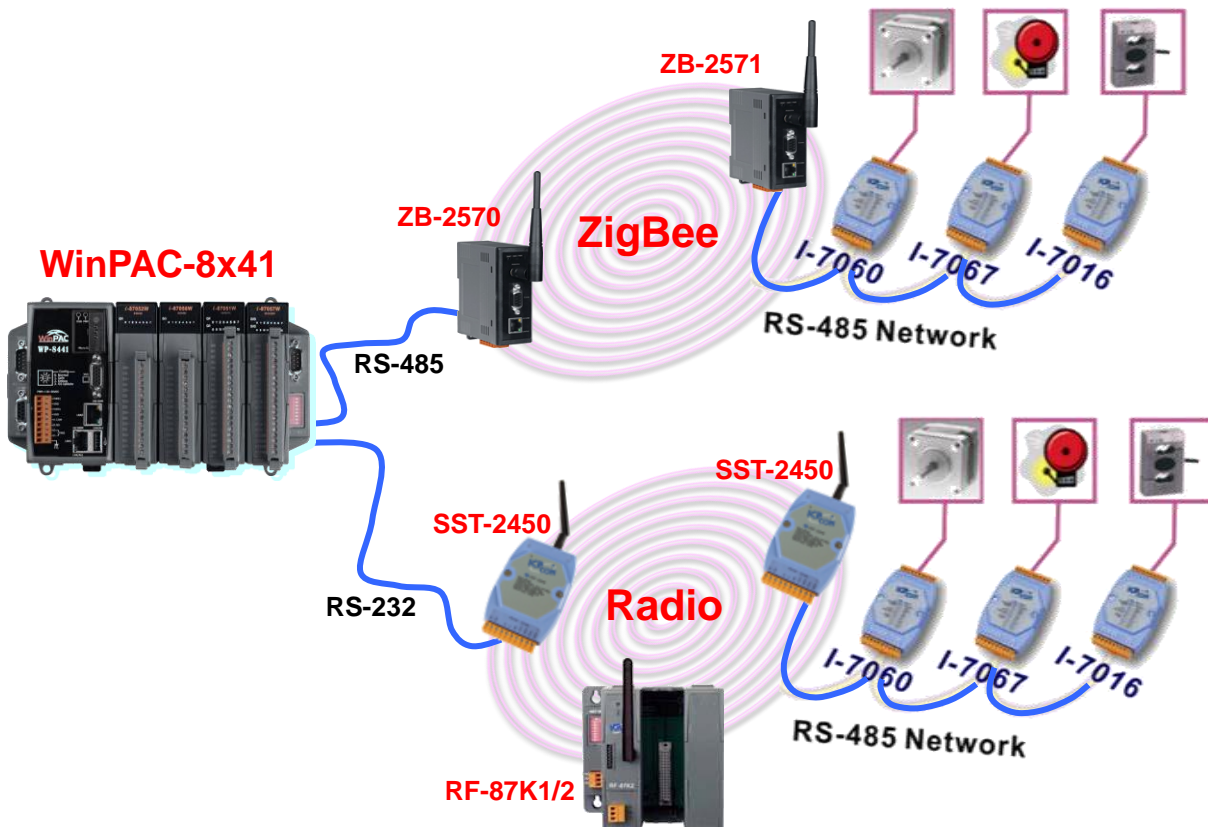
RS-485: i-7K / M-7K series / RU-87Pn + high profile i-87K series
 Ethernet: ET-6K / ET-7K / i-8KE4 series

Local I/O slots applications:

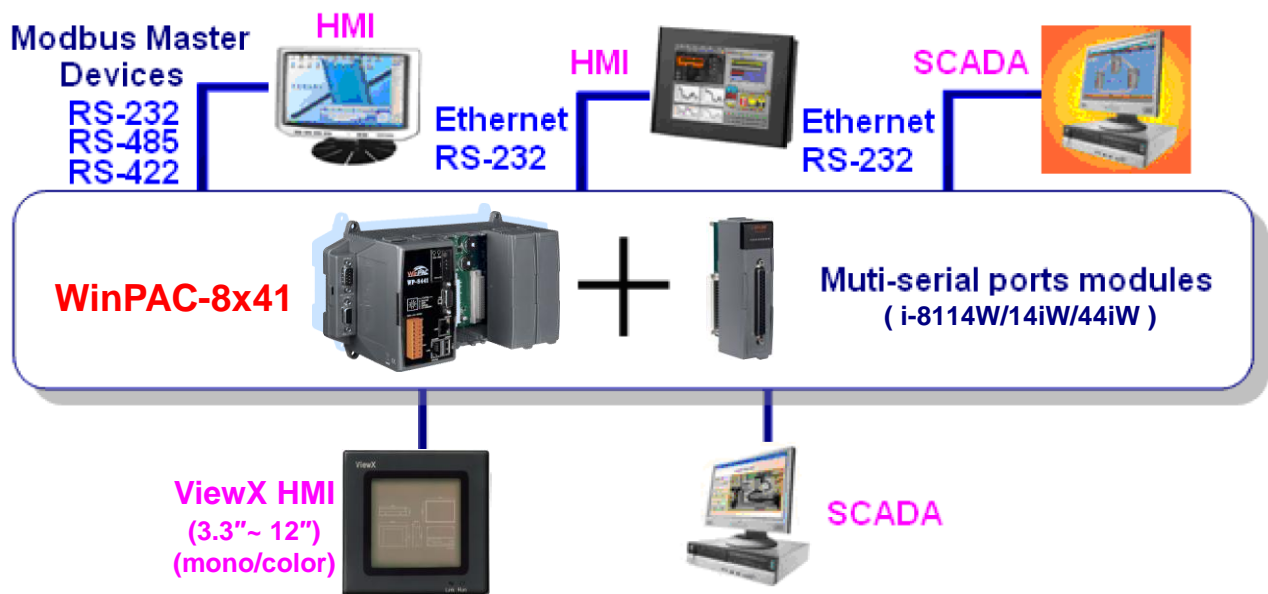
High profile i-8K/i-87K series
 High profile i-8172W + FRnet I/O series
 High profile i-8120 + CAN bus I/O series



• Wireless communication

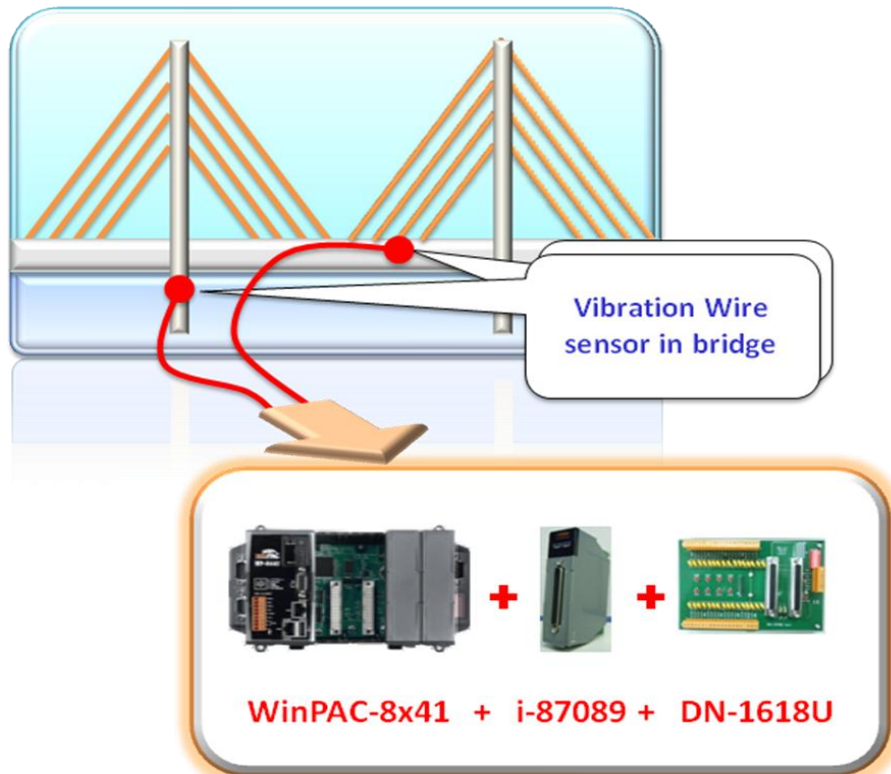


● Multi-HMI Connections



● Constructions Monitoring Application

The application mainly used to measure the stress of internal structures or the pressure of water seepage, can be used to monitor bridges, rivers and dams for the surveillance, monitoring, etc....
 This solution has been successfully applied in some water dams monitoring system near the city Wuhang in China.



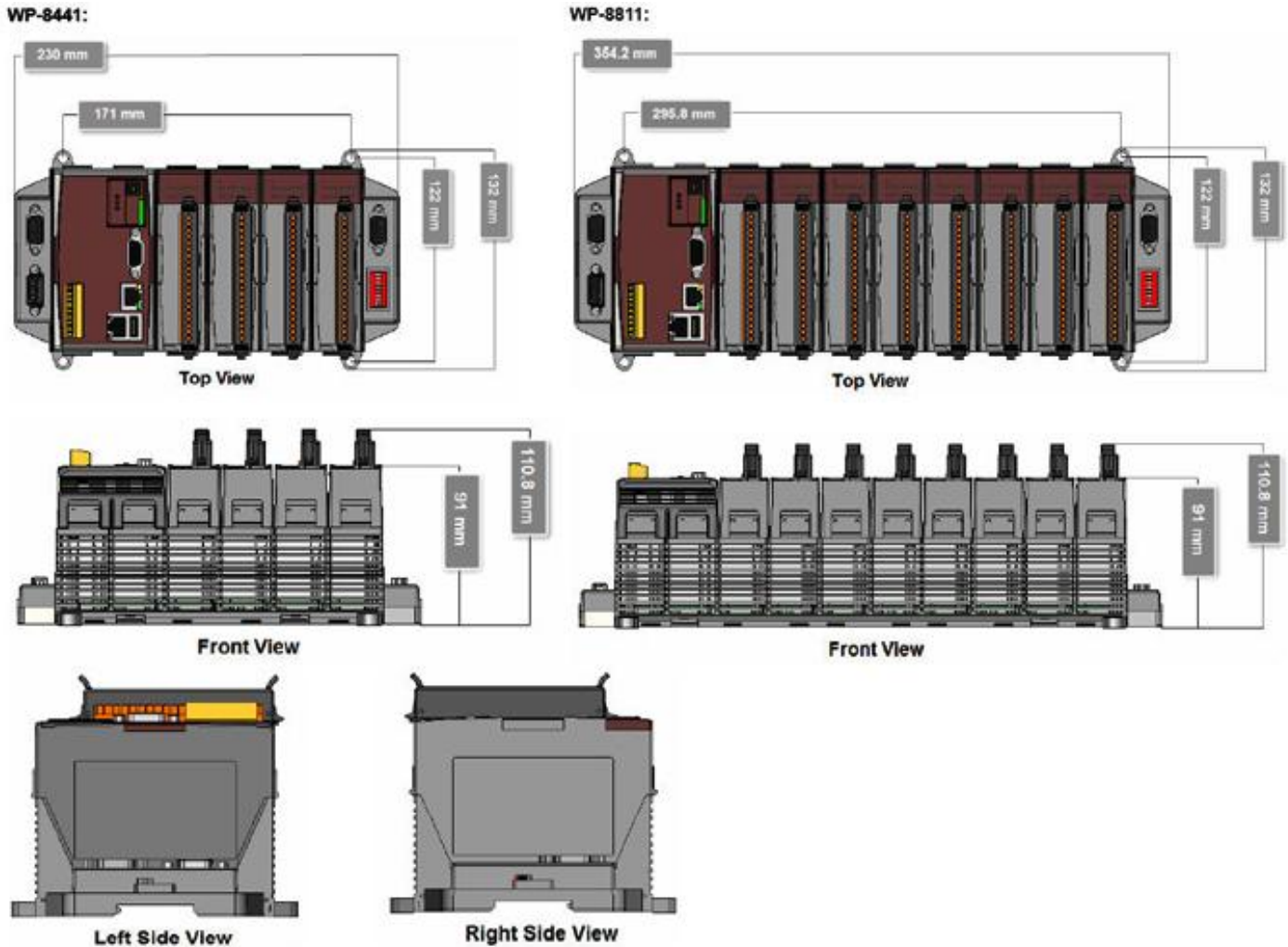


Specifications of WinPAC-8441/ 8841

System Software	
OS	Windows CE 5.0 (with .Net Compact Framework 2.0)
.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 2005
CPU Module	
CPU	PXA270 or compatible (32-bit and 520MHz)
SDRAM	128MB
Dual Battery Backup SRAM	512K bytes (for 5 years data retain)
Flash	48MB (32MB for OS image, 14MB for built-in Flash disk, 2MB for registry)
Expansion Flash Memory	Micro SD socket with 1GB flash 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); (for WP-8441 and WP-8841 only)
VGA & Communication Ports	
VGA	1 (800x600 resolution)
Ethernet Port	RJ45 *2 10/100Base-TX Ethernet Controller (Auto-negotiating, Auto_MDIX, LED indicator)
USB 1.1 (host)	1
COM 0	Internal communication with the 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); 3000VDC 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
I/O expansion slots	
Slot number	WP-8441: 4 Slots; WP-8841: 8 Slots
Dimensions	
W x D x H (mm)	WP-8441: 230 x 132 x 98; WP-8841: 354 x 132 x 98
Operating Environment	
Operating Temperature	-25°C to +75°C
Storage Temperature	-40°C to +85°C
Humidity	5 ~ 95%,non-condensing
Power	
Input Range	+10V ~ +30V
Isolation	1KV
Redundant Power Inputs	Yes
Capacity	WP-8441: 1.1A, 5V supply to CPU and backplan, 4.9A, 5V supply to I/O expansion slots, total 30W
	WP-8841: 1.2A, 5V supply to CPU and backplan, 4.8A, 5V supply to I/O expansion slots, total 30W
Consumption	WP-8441: 9.1W (0.38A@24V); WP-8841: 9.6W (0.4A@24V)



Mechanical Drawing



Ordering Information

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-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-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)

Optional Accessories

DP-665	AC 85~270V input, DC 24V/1.7A and 5V/0.5A output power supply
DP-660	AC 85~270V input, DC 24V/2.5A and 5V/0.5A output power supply
DP-1200	AC 85~270V input, DC 24V/5.0A output power supply