ICP DAS

XP-9181-IoT/WP-9381-IoT/XP-9781-IoT

1/3/7-slot Metal Standard PAC with
E3845 CPU and Windows 10 IoT

⊞ Features

- Windows 10 IoT Enterprise (64-bit)
- Intel® Atom™ E3845 1.91 GHz
- 4 GB DDR3 SDRAM
- 64 GB SSD
- VGA / HDMI Display Output
- 2 10/100/1000M Ethernet Ports
- Audio with Microphone-In and Earphone-Out
- Redundant Power Input
- Operating Temperature: -25 ~ +60 °C

CE FC RoHS

📖 Introduction

The XP-9000-IoT are Windows 10 IoT Enterprise based PACs that combine computing, I/O, and operator interface into a single unit, and provide the perfect solution for integrating HMI, data acquisition and control in an individual PAC. It is equipped with an Intel E3827/E3845 CPU, 1/3/7 I/O expansion slots and a variety of connectives including dual Gigabit Ethernet, VGA , USB port, RS-232 and RS-485 interface. Local I/O slots are available to use our I-9K and I-97K series I/O modules and remote I/O expansions are available to use Ethernet I/O modules and RS-485 I/O modules.

Windows 10 IoT Enterprise runs on 64-bit x86 platform with support for both Universal Windows App and Classic Windows applications.
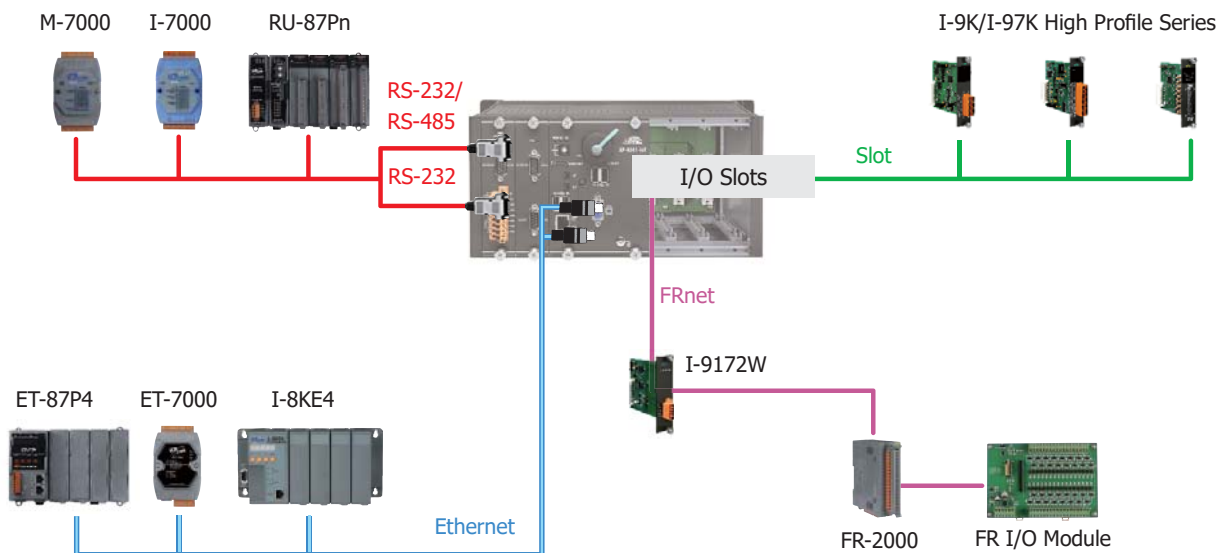
📖 What is Windows 10 IoT?

Windows 10 IoT is a member of the Windows 10 family that brings enterprise-class power, security and manageability to the Internet of Things. It leverages Windows' embedded experience, ecosystem and cloud connectivity, allowing organizations to create their Internet of Things with secure devices that can be quickly provisioned, easily managed, and seamlessly connected to an overall cloud strategy.

- Traditional Windows Shell with Advanced Lockdown Features
- Full Windows UI support (e.g. UWP, WinForms, etc)
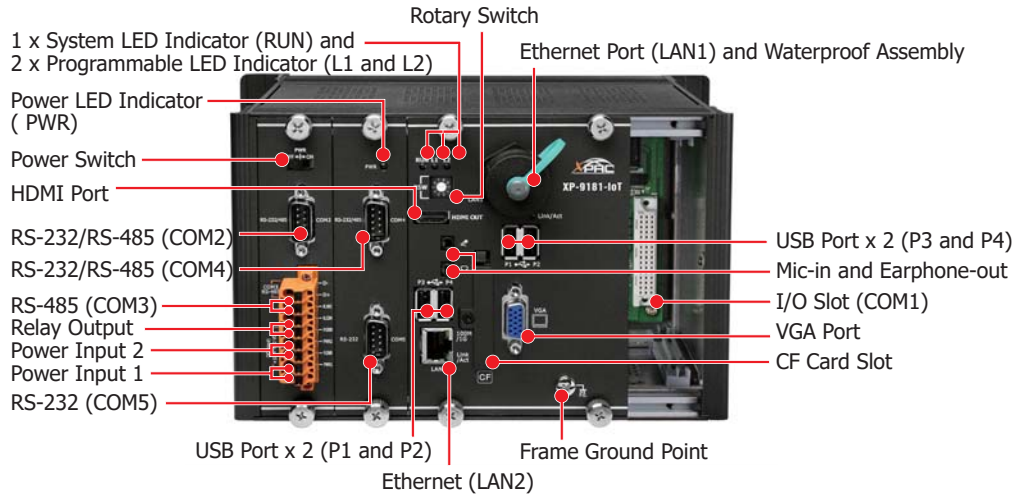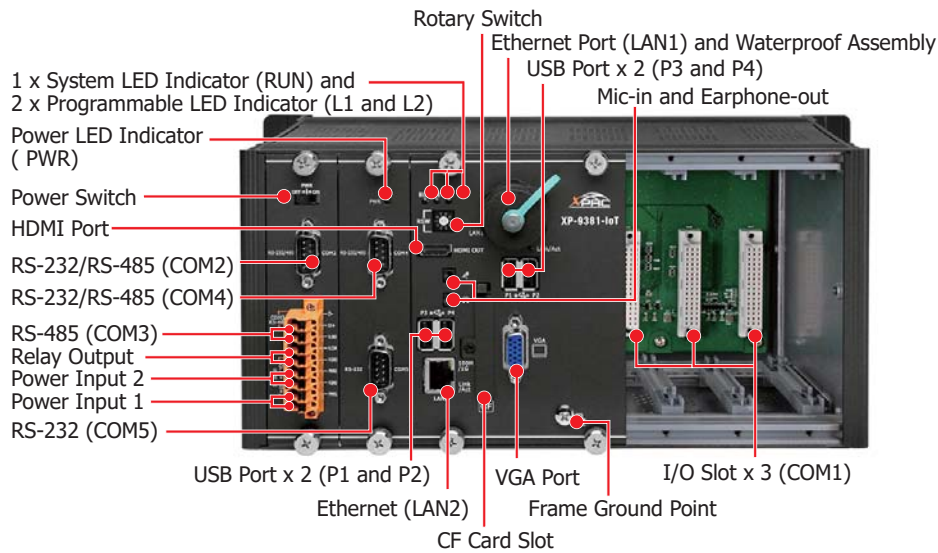
📖 Applications

■ Specifications

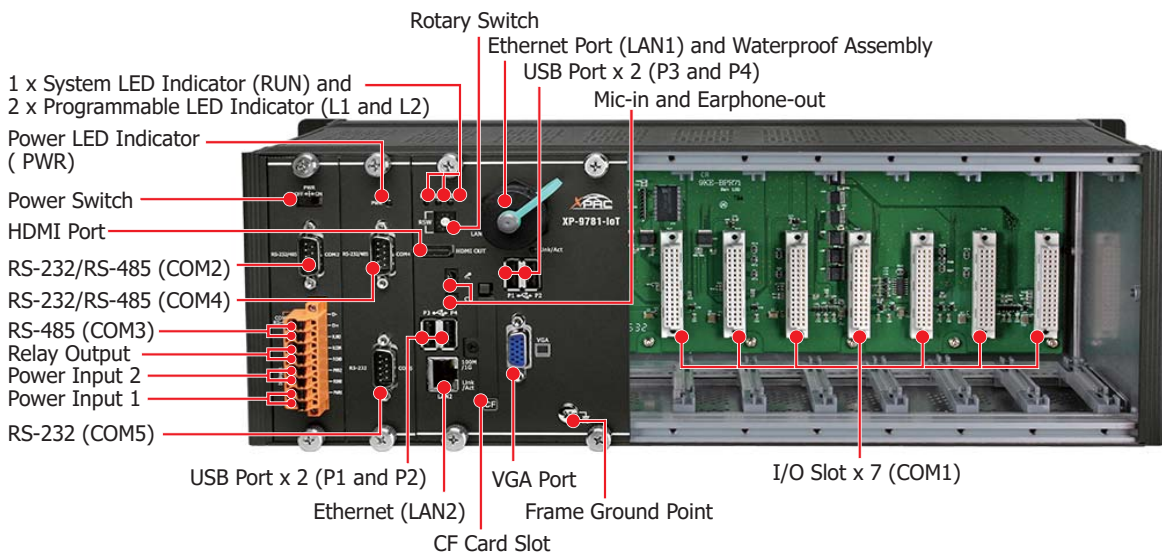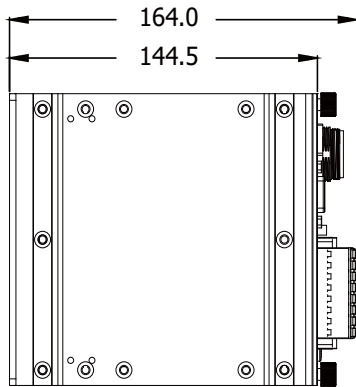| Model	XP-9181-IoT	XP-9381-IoT	XP-9781-IoT
Software			
OS	Windows 10 IoT Enterprise (64-bit)		
Framework Support	.Net Framework 3.5 ~ 4.8		
Service	IE11, FTP Server, IIS 7.0, ASP (Java Script, VB Script)		
SDK Provided	Dll for VC, Dll for Visual Studio.Net		
Multilanguage Support	English, German, French, Spanish, Portuguese, Russian, Italian, Korean, Japanese, Simplified Chinese, Traditional Chinese		
Main Unit			
CPU	E3845, 1.91 GHz, 64-bit quad core		
System Memory	4 GB DDR3		
MRAM	128 KB		
Flash	mSATA slot with one 64 GB SSD		
EEPROM	16 KB		
Storage	32 GB CF card (support up to 32 GB)		
RTC (Real Time Clock)	Provide seconds, minutes, hours, day of week/month, month and year		
64-bit Hardware Serial Number	Yes, for software copy protection		
Watchdog Timer	Dual Watchdog Timer		
Power Switch	Yes		
Rotary Switch	1 x 10 Position (0 ~ 9)		
Audio	Mic-in and Earphone-out		
Buzzer	Yes		
Display			
VGA Resolution	1280 x 1024 ~ 1920 x 1080 (16 : 9), 640 x 480 ~ 1024 x 768 (4 : 3)		
HDMI Resolution	1280 x 1024 ~ 1920 x 1080 (16 : 9), 640 x 480 ~ 1024 x 768 (4 : 3)		
LED Indicator	1 x System, 2 x Power and 2 x Programmable		
Communication Ports			
Ethernet	2 x RJ-45 10/100/1000M Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)		
USB 2.0	4		
COM1	Internal communication with the I-97K series modules in slots		
COM2	RS-232/485 (RxD, TxD and GND for RS-232; Data+, Data- for RS-485); 3000 VDC isolated		
COM3	RS-485 (Data+, Data-); 3000 VDC isolated		
COM4	RS-232/485 (RxD, TxD, CTS, RTS and GND for RS-232; Data+, Data- for RS-485); 3000 VDC isolated		
COM5	RS-232 (RxD, TxD, CTS, RTS, DSR, DTR, CD, RI and GND); 3000 VDC isolated		
I/O Expansion			
I/O Type	I-9K, I-97K series		
Slots	1	3	7
Mechanical			
Dimension (W x L x H)	239 mm x 164 mm x 133 mm	300 mm x 164 mm x 133 mm	422 mm x 164 mm x 133 mm
Installation	DIN-Rail, Wall mounting		
Environmental			
Operating Temperature	-25 ~ +60 ℃		
Storage Temperature	-30 ~ +80 ℃		
Humidity	10 ~ 90 % RH (non-condensing)		
Power			
Input Range	+10 ~ 30 VDC (1 kV Isolated)		
Redundant Power Inputs	Yes, with one power relay (1 A @ 24 VDC) for alarm		
Capacity	4.1 A, 5 V supply to CPU and backplane, 2.5 A, 5 V supply to I/O expansion slots, 33 W in total	4.2 A, 5 V supply to CPU and backplane, 2.4 A, 5 V supply to I/O expansion slots, 33 W in total	4.4 A, 5 V supply to CPU and backplane, 2.2 A, 5 V supply to I/O expansion slots, 33 W in total
Consumption	18.5 W (0.77 A @ 24 VDC)	18.7 W (0.78 A @ 24 VDC)	20.4 W (0.85 A @ 24 VDC)

▣ Appearance

XP-9181-IoT

Rotary Switch

1 x System LED Indicator (RUN) and
2 x Programmable LED Indicator (L1 and L2)

Ethernet Port (LAN1) and Waterproof Assembly

Power LED Indicator
(PWR)

Power Switch

HDMI Port

RS-232/RS-485 (COM2)

RS-232/RS-485 (COM4)

RS-485 (COM3)
Relay Output
Power Input 2
Power Input 1
RS-232 (COM5)

USB Port x 2 (P3 and P4)
Mic-in and Earphone-out
I/O Slot (COM1)
VGA Port
CF Card Slot

USB Port x 2 (P1 and P2)

Ethernet (LAN2)

Frame Ground Point

XP-9381-IoT

Rotary Switch

Ethernet Port (LAN1) and Waterproof Assembly
USB Port x 2 (P3 and P4)
Mic-in and Earphone-out

1 x System LED Indicator (RUN) and
2 x Programmable LED Indicator (L1 and L2)

Power LED Indicator
(PWR)

Power Switch

HDMI Port

RS-232/RS-485 (COM2)

RS-232/RS-485 (COM4)

RS-485 (COM3)
Relay Output
Power Input 2
Power Input 1
RS-232 (COM5)

USB Port x 2 (P1 and P2)

Ethernet (LAN2)

CF Card Slot

VGA Port

Frame Ground Point

I/O Slot x 3 (COM1)

XP-9781-IoT

Rotary Switch
Ethernet Port (LAN1) and Waterproof Assembly
USB Port x 2 (P3 and P4)
Mic-in and Earphone-out

1 x System LED Indicator (RUN) and
2 x Programmable LED Indicator (L1 and L2)

Power LED Indicator
(PWR)

Power Switch

HDMI Port

RS-232/RS-485 (COM2)

RS-232/RS-485 (COM4)

RS-485 (COM3)
Relay Output
Power Input 2
Power Input 1

RS-232 (COM5)

USB Port x 2 (P1 and P2)

Ethernet (LAN2)

CF Card Slot

VGA Port

Frame Ground Point
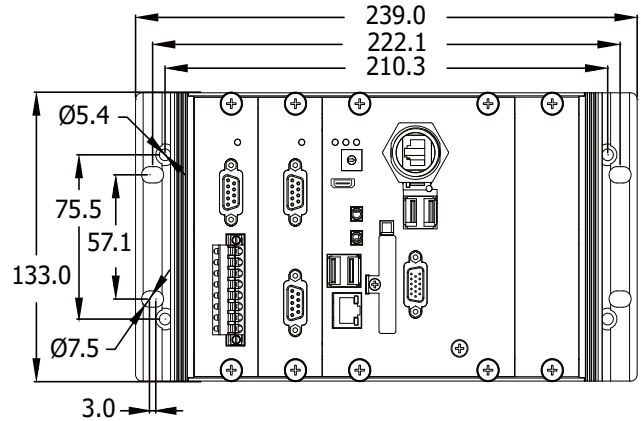
I/O Slot x 7 (COM1)

■ Dimensions (Units: mm)

XP-9181-IoT/XP-9381-IoT/XP-9781-IoT

Left Side View

XP-9181-IoT

Front View

XP-9381-IoT
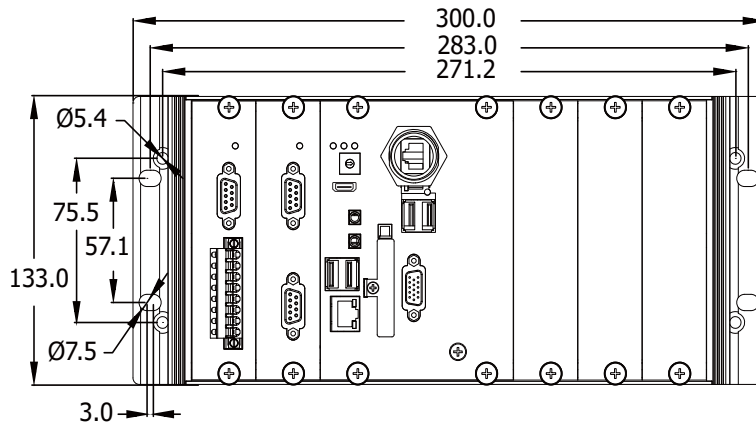
Front View

XP-9781-IoT
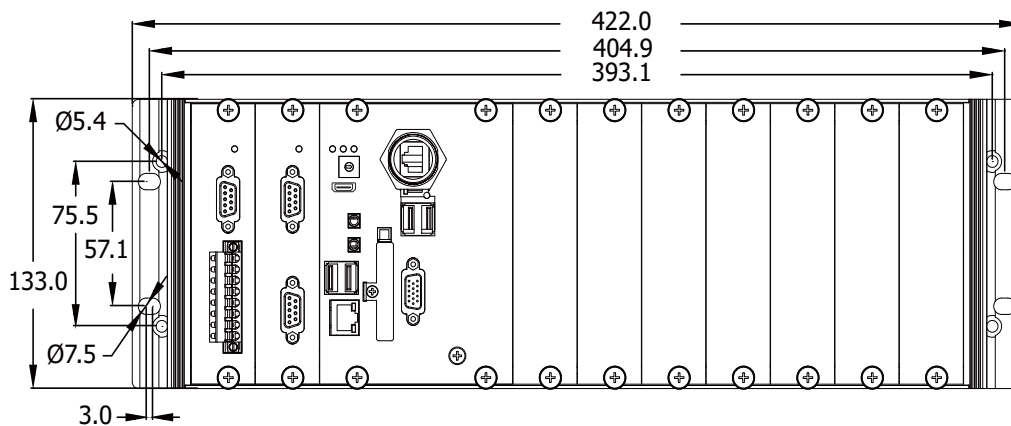
Front View

■ Ordering Information

XP-9181-IoT CR	1-slot Metal Standard PAC with E3845 CPU and Windows 10 IoT (RoHS)
XP-9381-IoT CR	3-slot Metal Standard PAC with E3845 CPU and Windows 10 IoT (RoHS)
XP-9781-IoT CR	7-slot Metal Standard PAC with E3845 CPU and Windows 10 IoT (RoHS)