AXP-9051-IoT/AXP-9251-IoT/AXP-9651-IoT

-/2/6-slot Metal Standard PAC with i5-8365UE CPU and Win10 IoT

Features

- Windows 10 IoT Enterprise (64-bit)
- Intel® Core™ i5-8365UE Processor (1.6 ~ 4.1 GHz, 4C8T)
- 16 GB DDR4 SDRAM
- 64 GB SSD
- VGA / HDMI Display Output
- 2 10/100/1000M Ethernet Ports
- Redundant Power Input

CE UKCA RoHS

Introduction

The AXP-9000-IoT are Windows 10 IoT 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 Core i5-8365UE CPU, 0/2/6 I/O expansion slots and a variety of connectives including dual Gigabit Ethernet, VGA, HDMI, USB port, RS-232 and RS-485 interface. Local I/O slots are available to use our I-9K, I-97K, e-9K series I/O modules and remote I/O expansions are available to use our Ethernet I/O modules and RS-485 I/O modules.

AXP-9000-IoT has a built-in Windows 10 IoT Enterprise operating system, which can support both the Universal Windows App and traditional Windows applications simultaneously. For software development tools, it can maintain maximum sharing with Windows 10, and applications can be quickly ported to AXP-9000 and deployed in a variety of harsh environments.
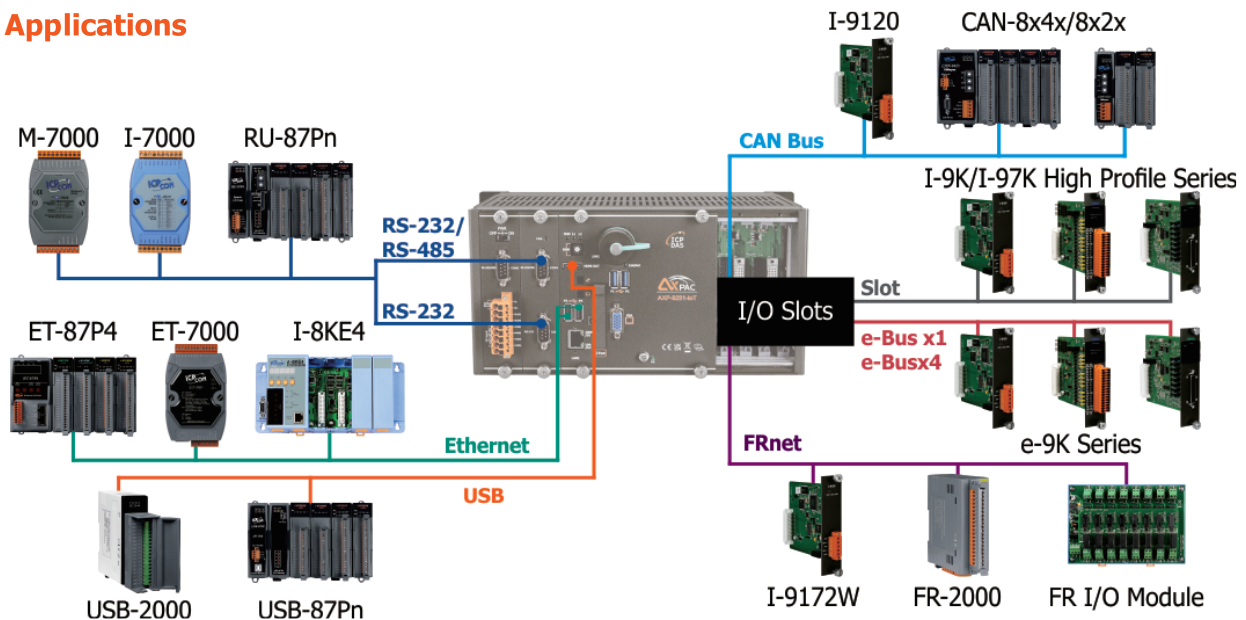
What is Windows 10 IoT?

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)
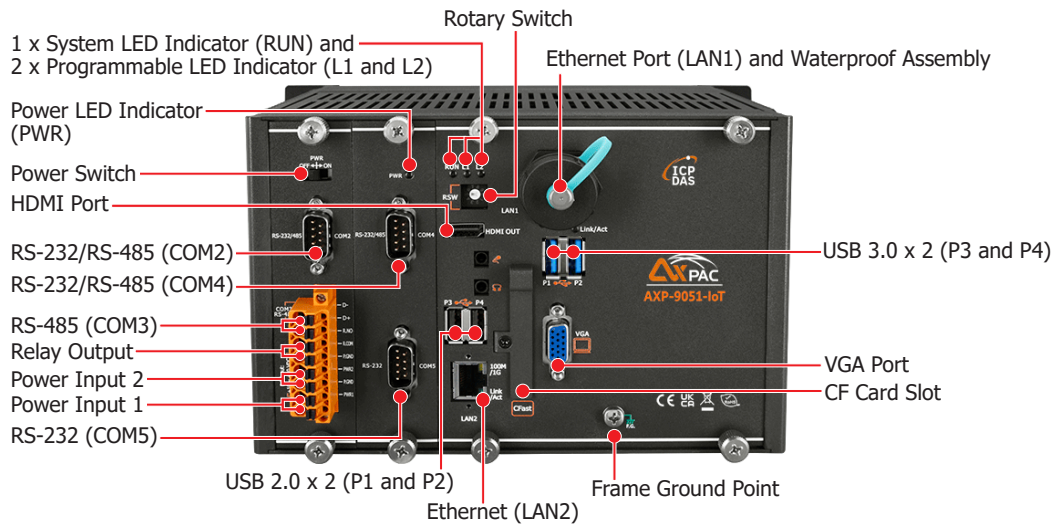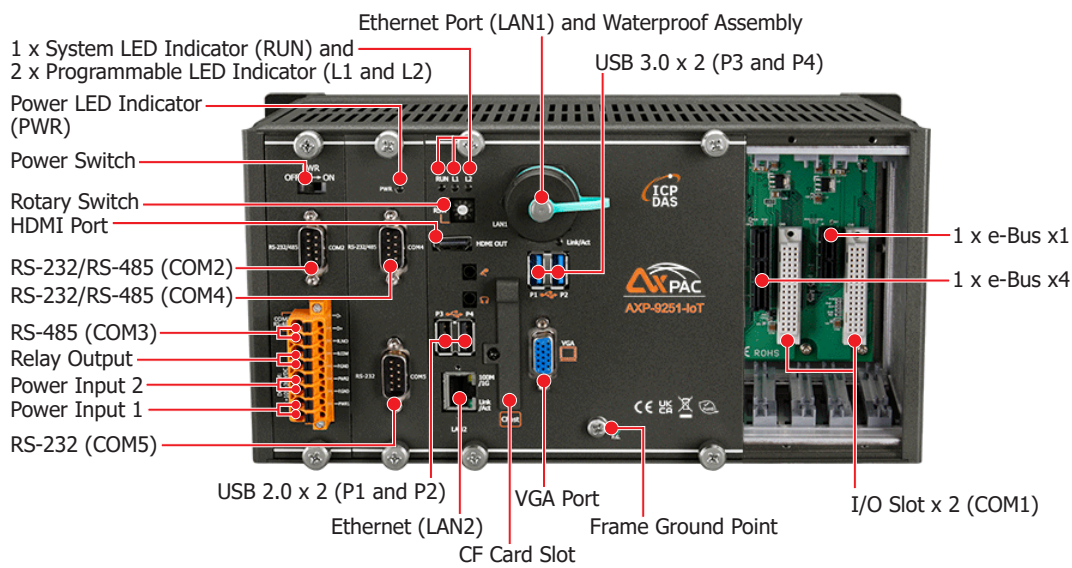
Applications

▪ Specifications

Model	AXP-9051-IoT	AXP-9251-IoT	AXP-9651-IoT
Software			
OS	Windows 10 IoT Enterprise (64-bit)		
Service	IE11, FTP Server, IIS 7.0, ASP (Java Script, VB Script)		
Framework Support	.Net Compact Framework 3.5 ~ 4.8		
Multilanguage Support	English, German, French, Spanish, Portuguese, Russian, Italian, Korean, Japanese, Simplified Chinese, Traditional Chinese		
SDK Provided	Dll for VC, Dll for Visual Studio.Net		
Main Unit			
CPU	Intel$^®$ Core™ Whiskey Lake U i5-8365UE Processor (1.6 ~ 4.1 GHz, 4C8T)		
64-bit Hardware Serial Number	Yes, for software copy protection		
System Memory	16 GB DDR4 SDRAM (SODIMM slots with a 16 GB DDR4 x 1)		
Storage	1x64 GB SSD (SATAIII) / 1x32 GB CFast card (SATAIII)		
Non-Volatile Memory	128 KB MRAM / 16 KB EEPROM		
Real Time Clock	Provide seconds, minutes, hours, dates, day of week, month, year		
Watchdog Timer	Dual Watchdog Timer		
Display			
Signal	1 x VGA, 1 x HDMI		
Resolution	VGA 1920 x 1200 @ 60Hz HDMI 4096 x 2160 @ 30P		
Graphic Processor	Intel$^®$ UHD Graphics 620		
LED Indicators			
Status	1 x System, 2 x Power, 2 x Programmable		
I/O Expansion			
I/O Type	e9K, I-9K, I-97K series		
Slots	-	2 x serial/parallel bus 1 x e-Bus x1 1 x e-Bus x4	6 x serial/parallel bus 1 x e-Bus x1 1 x e-Bus x4
COM Ports			
Ports	1 x RS-232 (3000 VDC Isolated), 1 x RS-485 (3000 VDC Isolated), 2 x RS-232/RS-485 (3000 VDC Isolated)		
HMI			
Buzzer	Yes		
Rotary Switch	1 x 10 Position (0 ~ 9)		
Power Switch	Yes		
Audio			
Cable	Microphone-in and Earphone-out		
Ethernet			
Ports	2 x RJ-45, 10/100/1000 Base-TX (Intel® I219LM)		
USB			
Ports	2 x USB 2.0, 2 x USB 3.0		
Power			
Capacity	80 W supply to CPU and backplane, 40 W supply to I/O expansion slots and USB ports, 120 W in total		
Input Range	+19 ~ 30 VDC (2 kV Isolated)		
Redundant Power Inputs	Yes, with one power relay (1 A @ 24 VDC) for alarm		
Consumption	30.5 W (Typical) 71 W (CPU Full Load)	31.5 W (Typical) 72 W (CPU Full Load)	32.6 W (Typical) 73 W (CPU Full Load)
Mechanical			
Dimension (W x L x H)	239 x 164 x 133 mm	300 x 164 x 133 mm	422 x 164 x 133 mm
Installation	DIN-Rail, Wall mounting		
Cooling Type	CPU Heat Sink and 180,000 hour long-life fan with Smart Fan function		
Environmental			
Operating Temperature	-25 ~ +60 °C		
Storage Temperature	-30 ~ +80 °C		
Humidity	10 ~ 90 % RH (non-condensing)		

■ Appearance

AXP-9051-IoT

- 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)
- Rotary Switch
- Ethernet Port (LAN1) and Waterproof Assembly
- USB 3.0 x 2 (P3 and P4)
- VGA Port
- CF Card Slot
- USB 2.0 x 2 (P1 and P2)
- Frame Ground Point
- Ethernet (LAN2)

AXP-9251-IoT

- 1 x System LED Indicator (RUN) and
- 2 x Programmable LED Indicator (L1 and L2)
- Power LED Indicator (PWR)
- Power Switch
- Rotary 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)
- Ethernet Port (LAN1) and Waterproof Assembly
- USB 3.0 x 2 (P3 and P4)
- 1 x e-Bus x1
- 1 x e-Bus x4
- I/O Slot x 2 (COM1)
- USB 2.0 x 2 (P1 and P2)
- Ethernet (LAN2)
- VGA Port
- Frame Ground Point
- CF Card Slot

AXP-9651-IoT

- 1 x System LED Indicator (RUN) and
- 2 x Programmable LED Indicator (L1 and L2)
- Power LED Indicator (PWR)
- Power Switch
- Rotary 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)
- Ethernet Port (LAN1) and Waterproof Assembly
- USB 3.0 x 2 (P3 and P4)
- 1 x e-Bus x1
- 1 x e-Bus x4
- I/O Slot x 6 (COM1)
- USB 2.0 x 2 (P1 and P2)
- Ethernet (LAN2)
- VGA Port
- Frame Ground Point
- CF Card Slot

◼ Dimensions (Units: mm)

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164.0
144.5
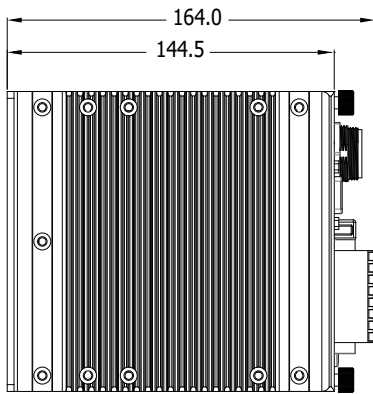
Left Side View

AXP-9051-IoT

422.0
222.1
202.1

Ø7.5
133.0
57.1
3.0

Front View

AXP-9251-IoT

422.0
283.0
263.0

Ø7.5
133.0
57.1
3.0

Front View

AXP-9651-IoT

422.0
404.9
384.9

Ø7.5
133.0
57.1
3.0
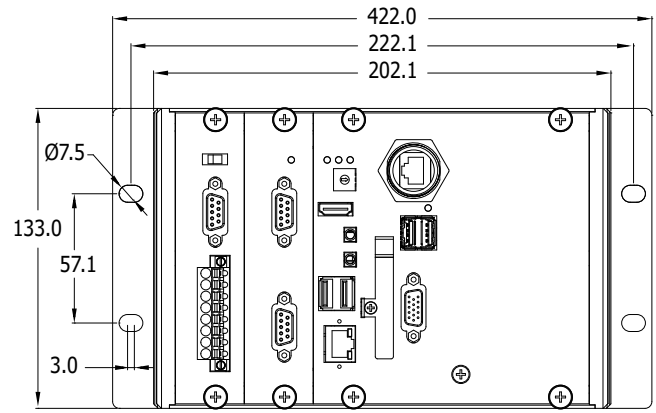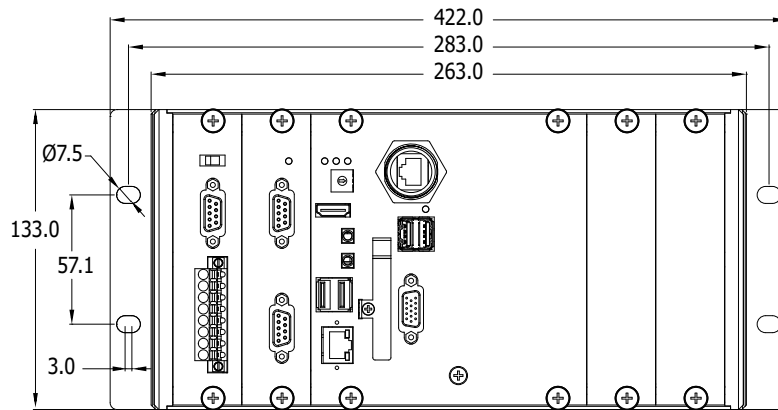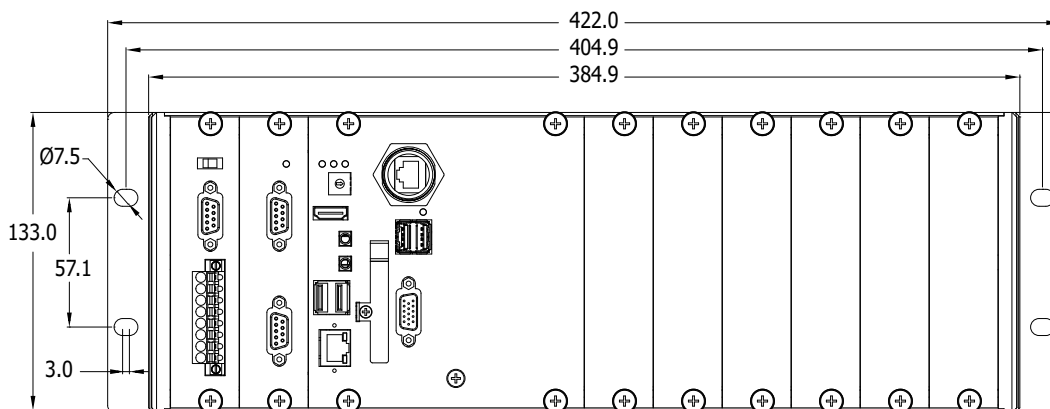
Front View

◼ Ordering Information

AXP-9051-IoT CR	Metal Standard PAC with i5-8365UE CPU and Win10 IoT (RoHS)
AXP-9251-IoT CR	2-slot Metal Standard PAC with i5-8365UE CPU and Win10 IoT (RoHS)
AXP-9651-IoT CR	6-slot Metal Standard PAC with i5-8365UE CPU and Win10 IoT (RoHS)