

LX-9181/LX-9381/LX-9781

1/3/7-slot Linux Based PAC with E3845 CPU
Metal Case

Features

- Linux Kernel 4.14
- E3845 (1.91 GHz, 64-bit quad core) CPU
- 4 GB DDR3 SDRAM and 32 GB SSD
- Hard Real-Time Capability (RTC)
- 64-bit Hardware Serial Number
- 2 10/100/1000M Ethernet Ports
- Rich I/O Expansion Ability (RS-232, RS-485)
- Redundant Power Input
- Operating Temperature: -25 ~ +60 °C

Introduction

The LX-9181/LX-9381/LX-9781 are Linux 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 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 our Ethernet I/O modules and RS-485 I/O modules.

User's programs can be saved in external storage device, such as CF Card or USB mass storage device. LinPAC SDK is provided for users to develop LinPAC I/O applications rapidly and easily when I-7k/9k/97k series I/O modules are used in the LinPAC. Users can develop LinPAC applications by using GNU C Language.

In the meanwhile, all kinds of servers and functions make the LinPAC more powerful and users will be able to operate LinPAC to achieve their own project smoothly.

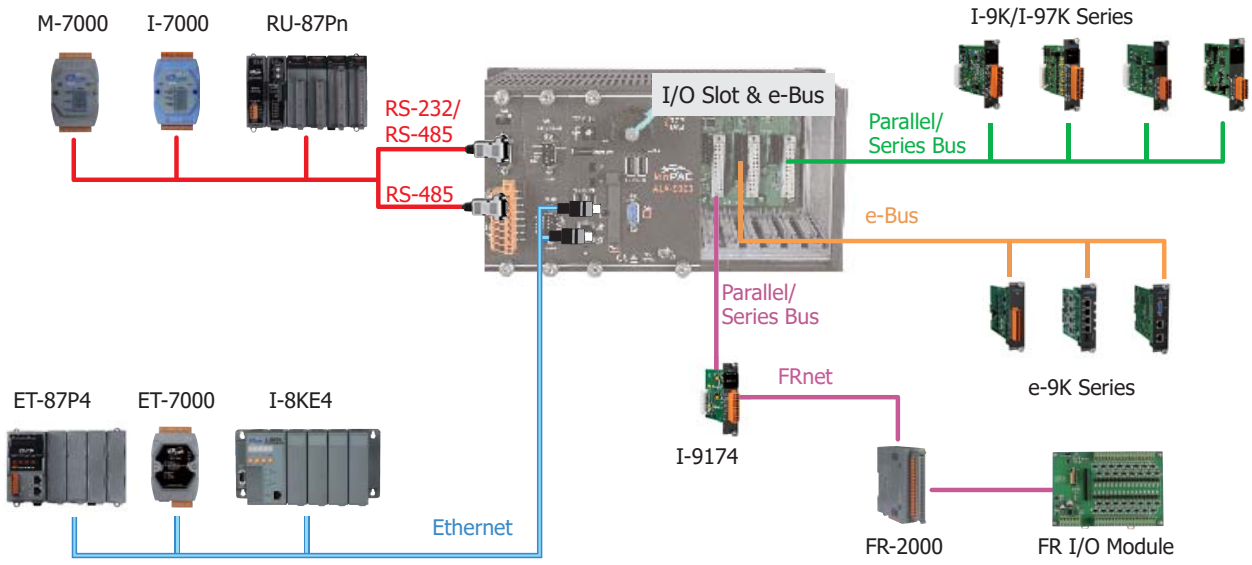
Linux Kernel OS



Main advantage of the LX-9181/LX-9381/LX-9781 is its high quality control system, including its stably properties, open source and the standard LinPAC SDK for Windows and Linux using the GNU C language, GUI software. The main purpose of LX-9181/LX-9381/LX-9781 is to allow the numerous enthusiastic Linux users to control their own embedded system easily within the Linux environment.

- LinPAC SDK for Windows and Linux
- Support for GNU C Language
- Support for GUI: Using GTK + Library
- Support for USB to Serial Converter
- Support for DCON, Modbus and SNMP Protocols

Appications



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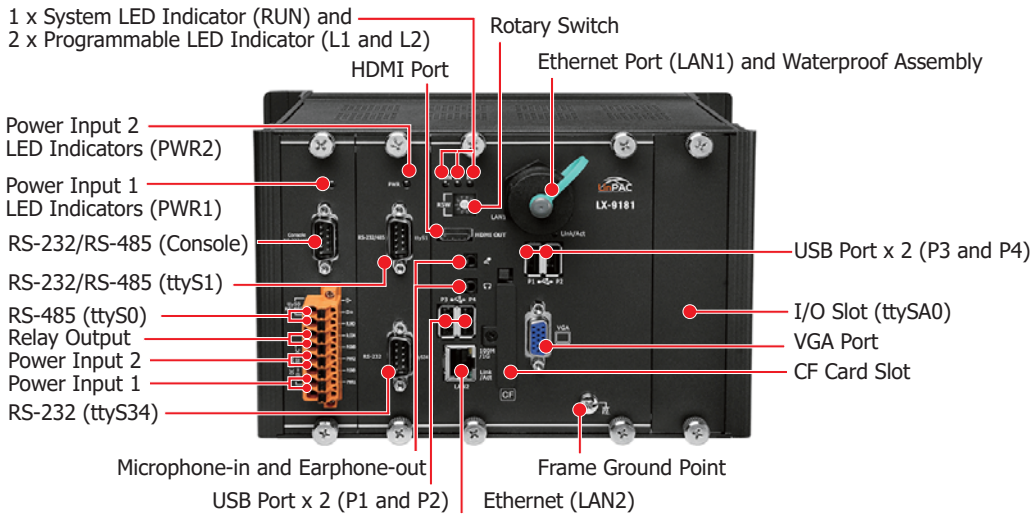
Specifications

Model	LX-9181	LX-9381	LX-9781
System Software			
OS	Linux OS with kernel 4.14		
Embedded Service	SFTP server, Web server, SSH		
SDK	Standard LinPAC SDK for Linux by GNU C language		
Main Unit			
CPU	E3845 (1.91 GHz, 64-bit quad core)		
SDRAM	4 GB DDR3		
MRAM	512 KB		
EEPROM	16 KB		
Storage	1 x 32 GB SSD(mSATA), 1 x CF Card Slot		
RTC (Real Time Clock)	Provide second, minute, hour, date, day of week, month, year		
64-bit Hardware Serial Number	Yes, for Software Copy Protection		
Watchdog Timer	Dual Watchdog Timers		
HMI			
Rotary Switch	Yes (0 ~ 9)		
LED Indicator	2 x Power, 1 x Run (Programmable), 2 x Programmable		
Display			
VGA	1, Resolution: 640 x 480 ~ 1024 x 768 (4 : 3), 1280 x 1024 (5 : 4) and 1920 x 1080 (16 : 9)		
HDMI	1, Resolution: 640 x 480 ~ 1024 x 768 (4 : 3), 1280 x 1024 (5 : 4) and 1920 x 1080 (16 : 9)		
Audio			
Jack	Microphone-In and Earphone-Out		
I/O Expansion			
I/O Type	I-9K, I-97K series		
Slots	1	3	7
Communication Ports			
Ethernet	2 x RJ-45, 10/100/1000M Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)		
USB	4 x USB 2.0		
ttySA0	Internal communication with the I-97K series modules in slots		
Console	RS-232/485 (RxD, TxD and GND for RS-232; Data+, Data- for RS-485); 3000 VDC isolated		
ttyS0	RS-485 (Data+, Data-); 3000 VDC isolated		
ttyS1	RS-232/485 (RxD, TxD, CTS, RTS and GND for RS-232; Data+, Data- for RS-485); 3000 VDC isolated		
ttyS34	RS-232 (RxD, TxD, CTS, RTS, DSR, DTR, CD, RI and GND); 3000 VDC isolated		
Mechanical			
Dimensions (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 Mounting/Wall Mounting		
Environmental			
Operating Temperature	-25 ~ +60 °C		
Storage Temperature	-30 ~ +80 °C		
Ambient Relative Humidity	10 ~ 95 % RH (non-condensing)		
Power			
Input Range	+10 ~ 30 VDC (1 kV Isolated)		
Redundant Power Input	Yes, with one power relay (1A @ 24 VDC) for alarm		
Capacity	3.7 A, 5 V supply to CPU and backplane, 3.3 A, 5 V supply to I/O expansion slots, 35 W in total	3.8 A, 5 V supply to CPU and backplane, 3.2 A, 5 V supply to I/O expansion slots, 35 W in total	4.0 A, 5 V supply to CPU and backplane, 3.0 A, 5 V supply to I/O expansion slots, 35 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)

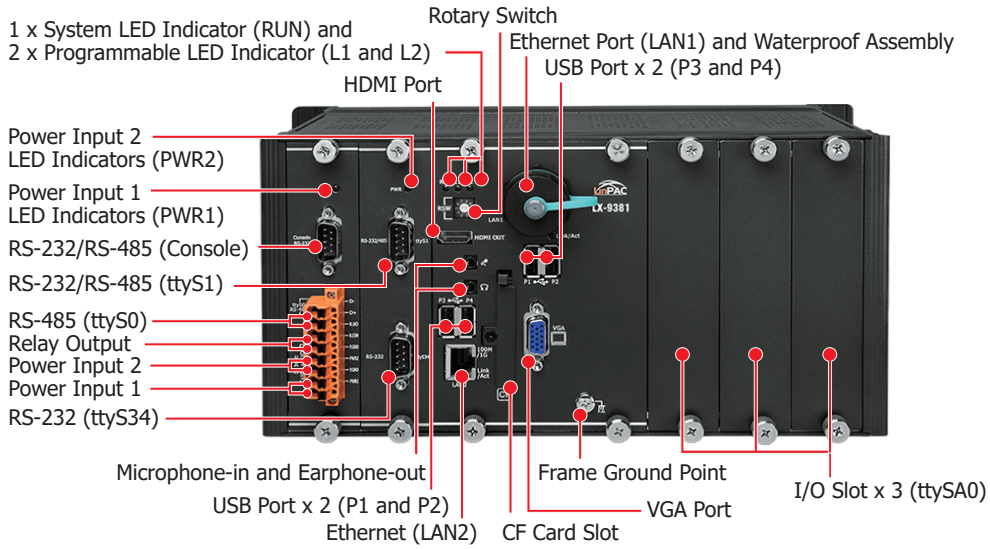
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Appearance

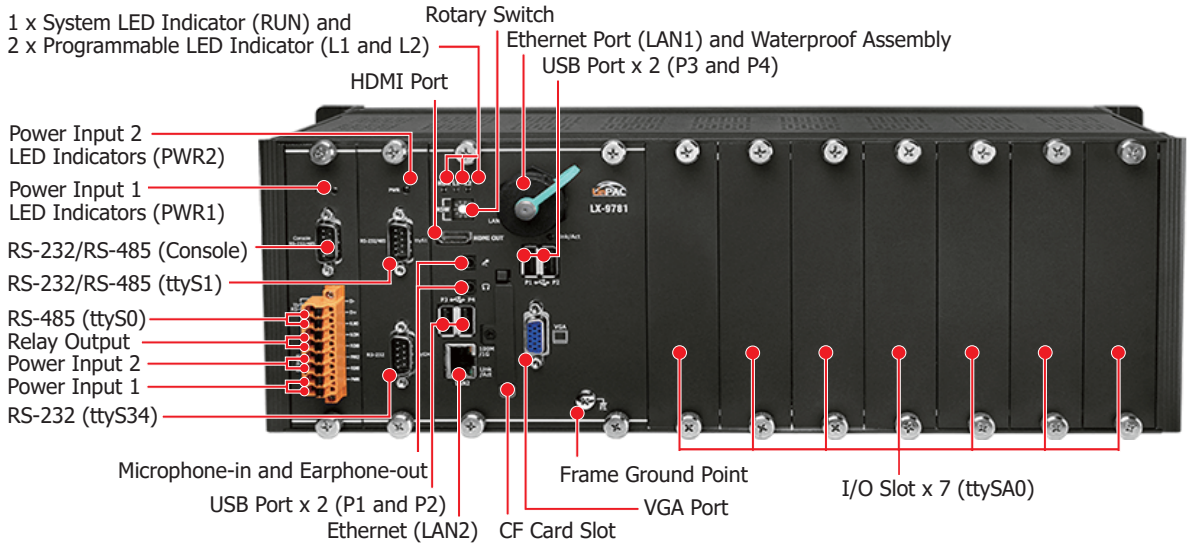
LX-9181



LX-9381



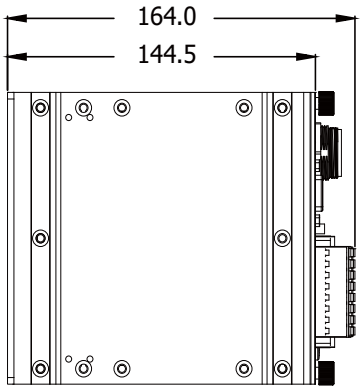
LX-9781



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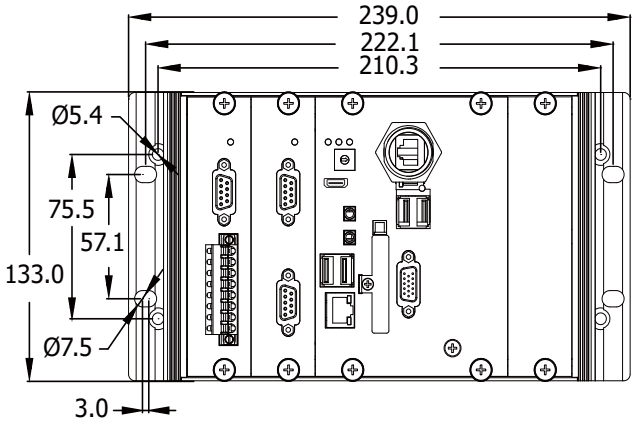
Dimensions (Units: mm)

LX-9181/LX-9381/LX-9781



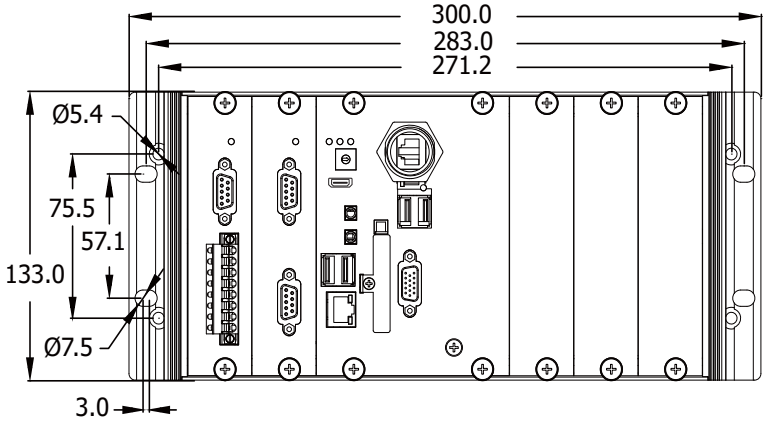
Left Side View

LX-9181



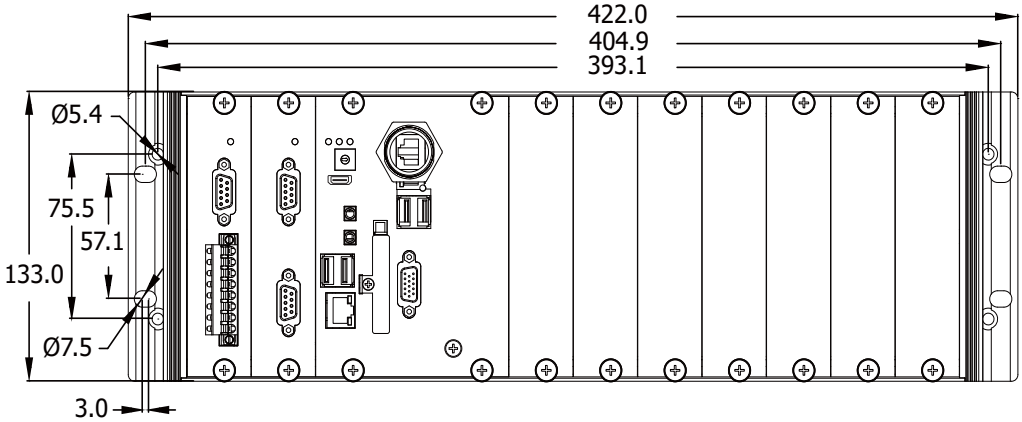
Front View

LX-9381



Front View

LX-9781



Front View

Ordering Information

LX-9181 CR	1-slot Linux Based PAC with E3845 CPU, Metal Case (RoHS)
LX-9381 CR	3-slot Linux Based PAC with E3845 CPU, Metal Case (RoHS)
LX-9781 CR	7-slot Linux Based PAC with E3845 CPU, Metal Case (RoHS)

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