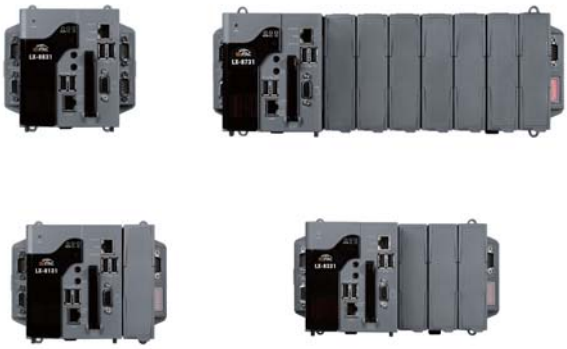


LX-8031/LX-8131/LX-8331/LX-8731

0/1/3/7-slot Linux Based PAC with x86 CPU

Features

- Linux kernel 3.2 Inside
- x86 CPU, 1 GHz, dual-core
- 2 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 ~ +75 °C

Introduction

The LX-8000 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 x86 dual-core CPU, 0/1/3/7 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-8K and I-87K 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-7000/I-8K/I-87K 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 builtin make the LinPAC more powerful and users will be able to operate LinPAC to achieve their own project smoothly.

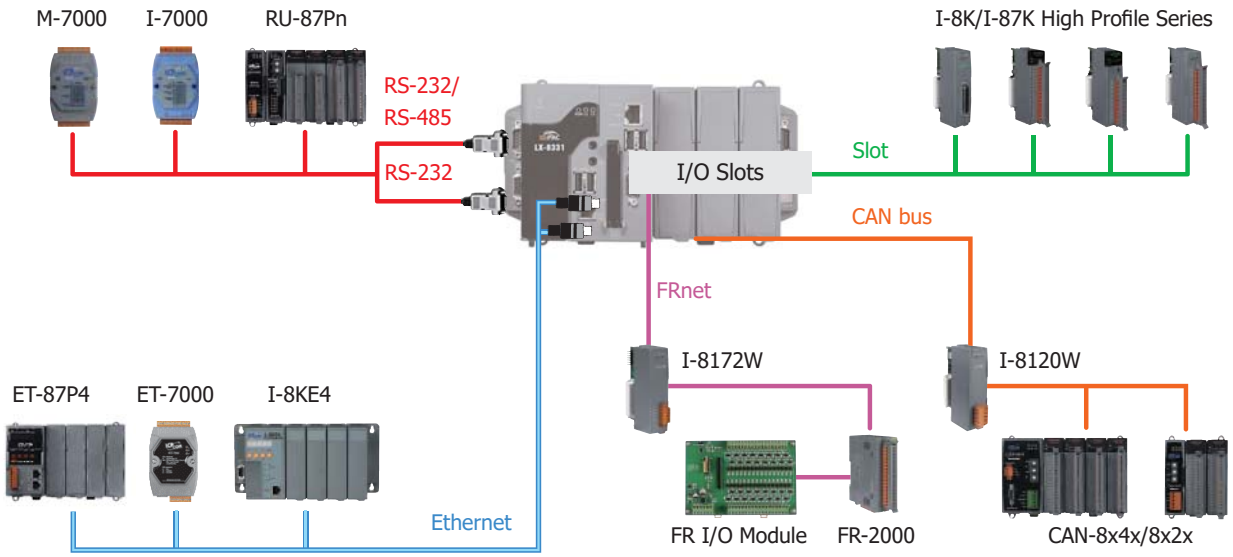
Linux Kernel OS



Main advantage of the LX-8000 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-8000 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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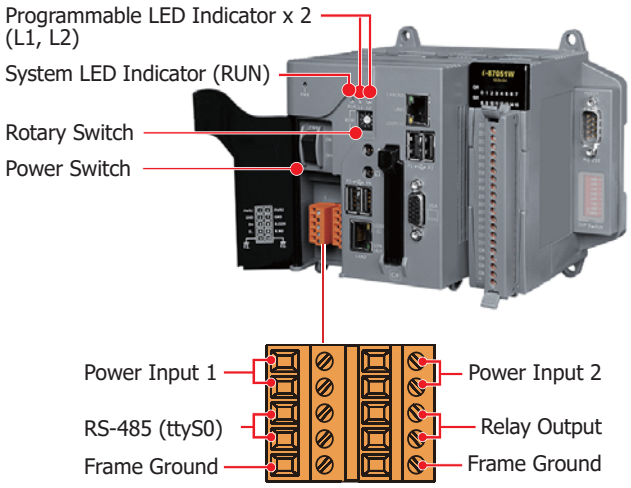
Specifications

Model	LX-8031	LX-8131	LX-8331	LX-8731
System Software				
OS	Linux kernel 3.2			
Embedded Service	SFTP server, Web server, SSH			
SDK	LinPAC SDK (GCC based toolchain and LinPAC Libraries)			
Main Unit				
CPU	x86 CPU, 1 GHz, dual-core			
SDRAM	2 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			
Hardware Serial Number	Yes, 64-bit hardware serial number for software copy protection			
Watchdog Timer	Dual watchdog timers			
HMI				
Rotary Switch	Yes (0 ~ 9)			
DIP Switch	-	Yes (8 bits)		
LED Indicator	1 x Power, 1 x Run (Programmable), 2 x Programmable			
Display				
VGA	1280 × 1024 ~ 1920 × 1080 for 16:9 display; 640 × 480 ~ 1024 × 768 for 4:3 display			
Audio				
Jack	Microphone-In and Earphone-Out			
I/O Expansion				
I/O Type	I-8K, I-87K 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	RS-232 (RxD, TxD and GND); non-isolated	Internal communication with the I-87K series modules in slots		
Console	RS-232 (RxD, TxD, CTS, RTS and GND); 3000 VDC isolated			
ttyS0	RS-485 (Data+, Data-) with internal self-tuner ASIC; 3000 VDC isolated			
ttyS1	RS-232/RS-485 (RxD, TxD, CTS, RTS, 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)	137 x 132 x 125 mm	169 x 132 x 125 mm	231 x 132 x 125 mm	355 x 132 x 125 mm
Installation	DIN-Rail Mounting/Wall Mounting			
Environmental				
Operating Temperature	-25 ~ +75 °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	20 W	25 W	30 W	35 W
Consumption	12 W (0.5 A @ 24 VDC)	16.6 W (0.69 A @ 24 VDC)	16.8 W (0.7 A @ 24 VDC)	18 W (0.75 A @ 24 VDC)

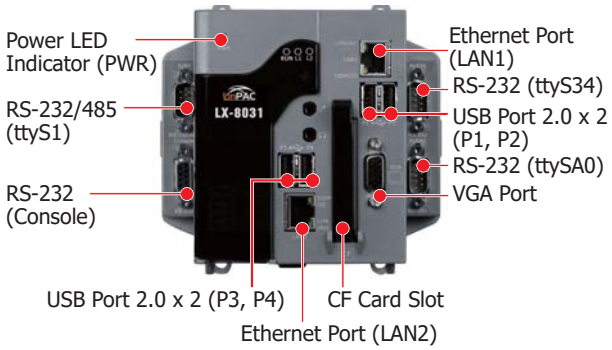
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Appearance

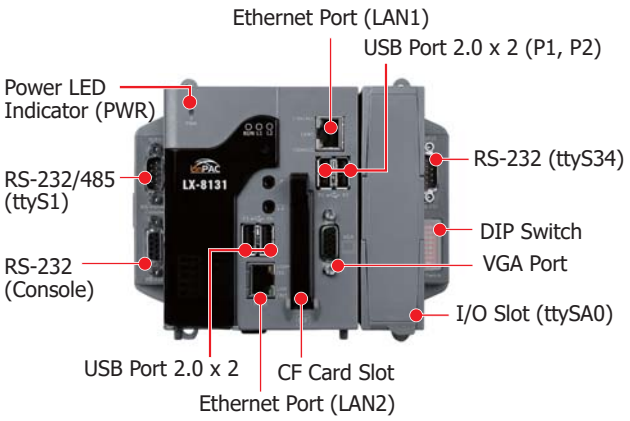
LX-8031/LX-8131/LX-8331/LX-8731



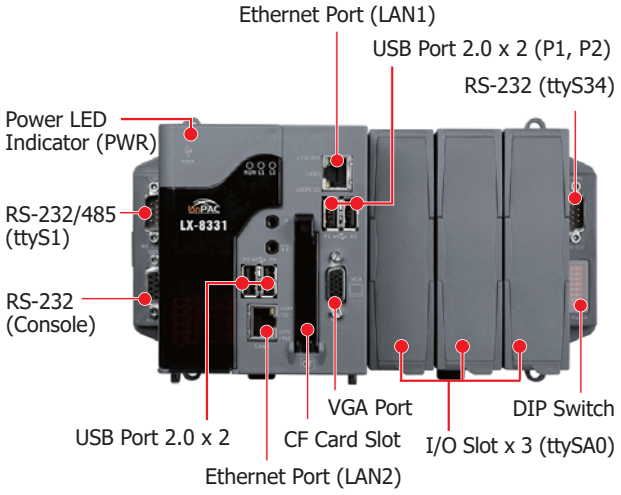
LX-8031



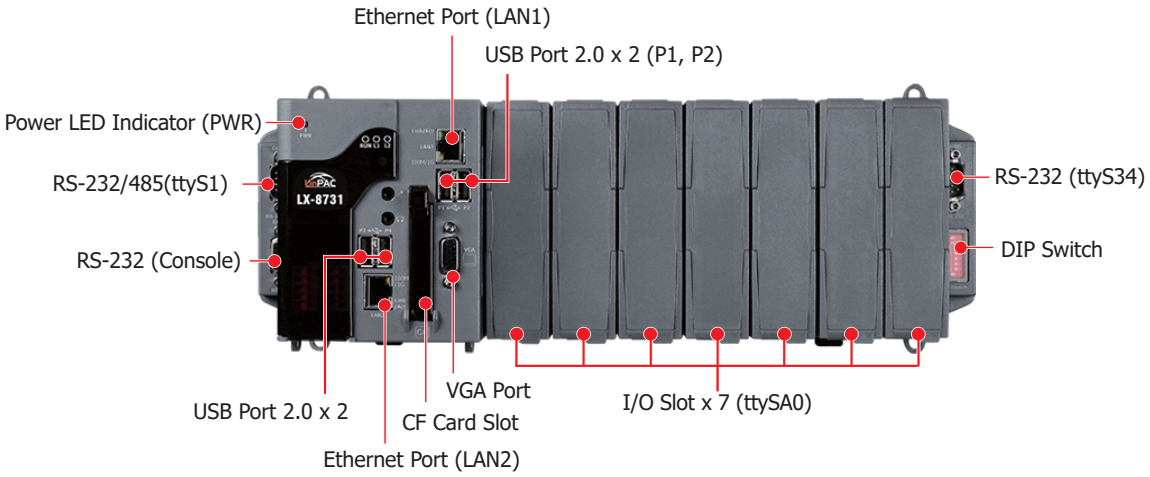
LX-8131



LX-8331



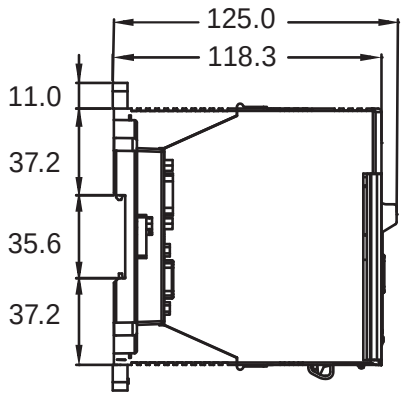
LX-8731



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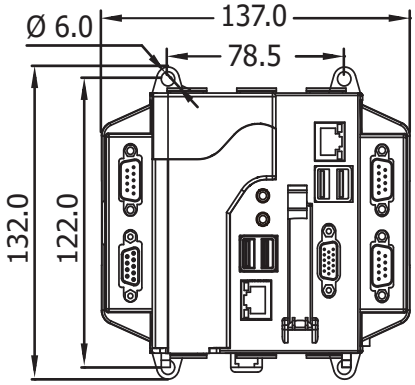
Dimensions (Units: mm)

LX-8031/LX-8131/LX-8331/LX-8731



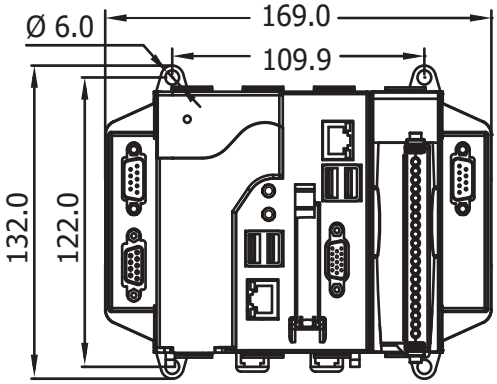
Left Side View

LX-8031



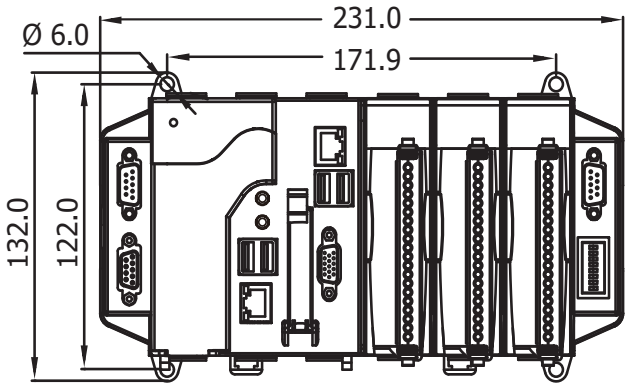
Front View

LX-8131



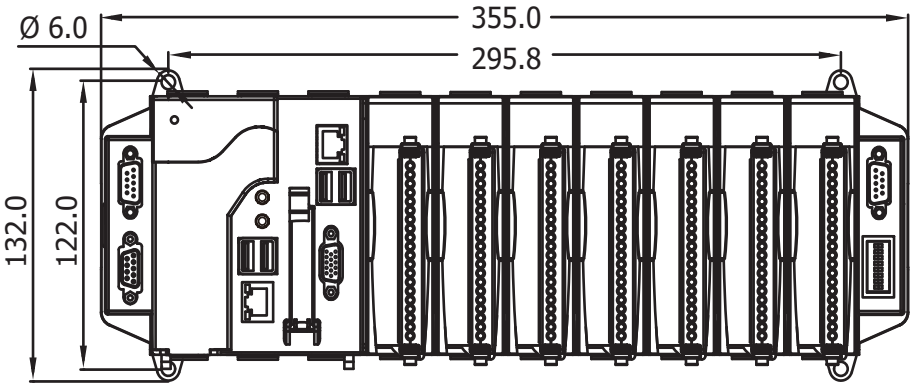
Front View

LX-8331



Front View

LX-8731



Front View

Ordering Information

LX-8031 CR	0-slot Linux Based PAC with x86 CPU (RoHS)
LX-8131 CR	1-slot Linux Based PAC with x86 CPU (RoHS)
LX-8331 CR	3-slot Linux Based PAC with x86 CPU (RoHS)
LX-8731 CR	7-slot Linux Based PAC with x86 CPU (RoHS)

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