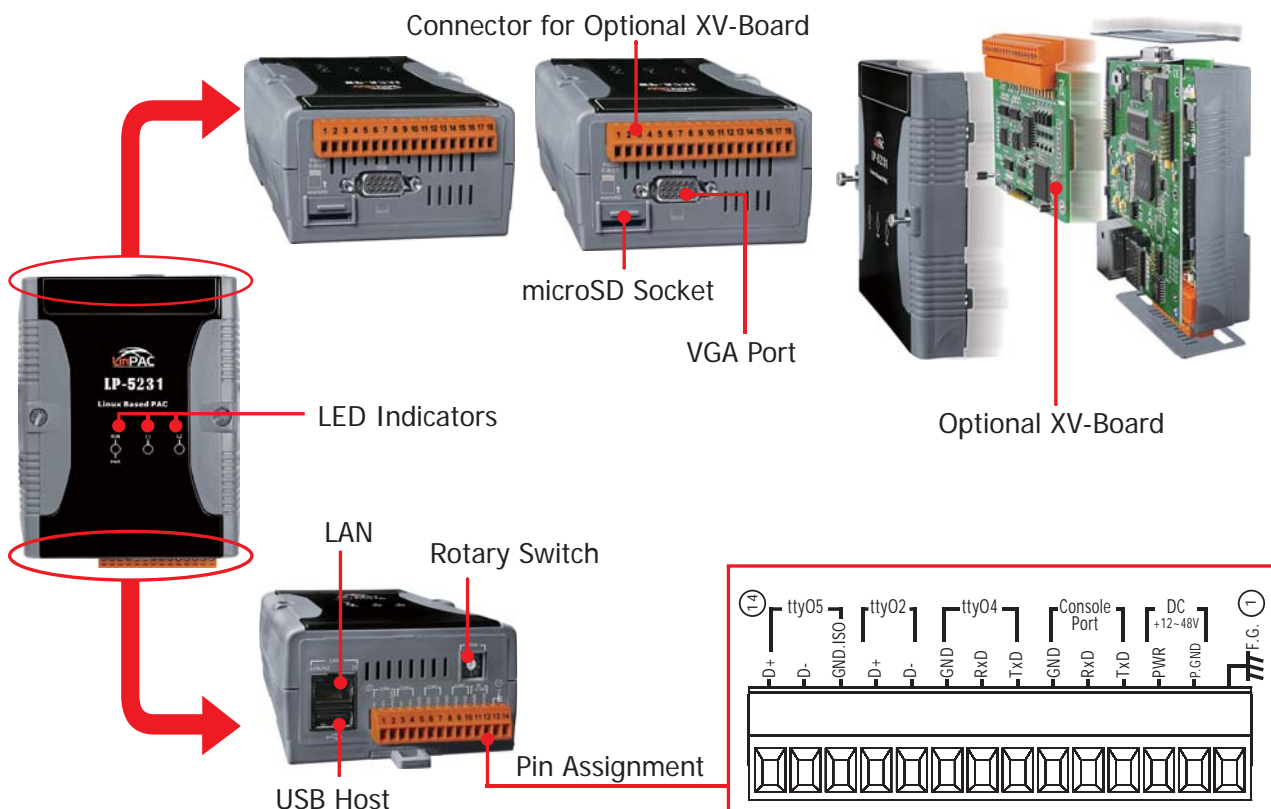# LP-5231

Features

- Cortex-A8, 1GHz CPU
- Linux kernel 3.2.1.4
- 512 MB DDR3 and 512 MB Flash
- 64-bit Hardware Serial Number
- Real-Time Capability
- I/O Expansion Bus
- 10/100/1000M Ethernet Ports
- 3 Serial Ports (RS-232/485)
- Operating Temperature: -25 ~ +75°C

Introduction

The LP-5231 series is equipped a Cortex-A8 CPU (1 GHz) and using Linux operating system (Linux Kernel 3.2.14). Linux Kernel 3.2.14 is a compact and real-time OS used to quickly create time critical and high performance applications. Main advantage of the LP-5231 is its high quality control system, including its stability, small core size, optional I/O expansion board, support for Web services (Web/SFTP/SSH server).

Appearance

Connector for Optional XV-Board

microSD Socket

VGA Port

Optional XV-Board

LED Indicators

LAN

Rotary Switch

USB Host

Pin Assignment

⑭	ttyO5		GND.ISO	ttyO2		GND	ttyO4		GND	Console Port			DC +12~48V		F.G.	①
	D+	D-	GND.ISO	D+	D-	GND	RxD	TxD	GND	RxD	TxD		PWR	P.GND	F.G.	

▣ Specifications

System Software	
OS	Linux Kernel 3.2.14
Embedded Service	SFTP server, Web server, SSH
SDK Provided	LinPAC SDK (GCC based toolchain and LinPAC Libraries)
CPU Module	
CPU	Cortex-A8, 1 GHz
SDRAM	512 MB DDR3
Flash	512 MB
FRAM	64 KB
Expansion Flash Memory	microSD socket with one 4 GB microSD card (support up to 32 GB microSDHC card)
RTC (Real Time Clock)	Provide second, minute, hour, date, day of week, month, year
64-bit Hardware Serial Number	Yes, for Software Copy Protection
Dual Watchdog Timers	Yes
LED Indicators	4 LEDs (Power, Running and 2 user defined LEDs)
Rotary Switch	Yes (0 to 9)
VGA & Communication Ports	
VGA & Communication Ports	Yes, resolution: 800 × 600
Ethernet	RJ-45 x 1, 10/100/1000 Based-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)
USB 2.0 (host)	1
Console Port	RS-232 (RxD, TxD and GND); Non-isolated
ttyO2	RS-485 (Data+, Data-); Non-isolated
ttyO4	RS-232 (RxD, TxD and GND); Non-isolated
ttyO5	RS-485 (Data+, Data-); 2500 V_{DC} isolated
I/O Expansion	
I/O Expansion Bus	Yes, one optional XV-board
Mechanical	
Dimensions (W x L x H)	91 mm x 132 mm x 52 mm
Installation	DIN-Rail Mounting
Environmental	
Operating Temperature	-25 to +75°C
Storage Temperature	-40 to +80°C
Ambient Relative Humidity	10 to 90% RH (non-condensing)
Power	
Input Range	+12 to +48 V_{DC}
Consumption	4.8 W

▣ Ordering Information

LP-5231 CR	PAC with Linux OS and one LAN port (RoHS)

▣ Option Accessories

XV-Board	Add-on I/O Expansion Board