

LP-8x4x vs. LP-8x2x/9x2x

Hardware Comparison

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Specifications



LP-8x3x/LP-8x4x



LP-8x2x



LP-9x2x

CPU		
CPU	PXA270 (32-bit, 520 MHz) or compatible	Cortex-A8 (1.0 GHz) or compatible
SDRAM	128 MB	512 MB (DDR3)
Flash	96 MB	512 MB
Non-volatile Memory	Dual Battery Backup SRAM: 512KB	MRAM : 128KBs
EEPROM	16 KB	
SD/microSD	microSD socket with one microSD card	SD slot with one SD 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	
Programmable LED Indicator	1	2
DIP Switch	N/A (1 Slot); 8 bits (4/8 Slots)	-
Rotary Switch (0 ~ 9)	Yes	
VGA & Communication Ports		
VGA Resolution	640 x 480, 800 x 600 1024 x 768 (LP-8x3x)	800 x 600 resolution up to 1024x768 @ 60Hz
Ethernet	Connector	RJ-45 x 2
	Type	10/100 Base-TX 10/100/ 1000 Base-TX
USB	USB 1.1 x 1	USB 2.0 x 2
COM0/ttyO4	For I-87K series modules in slots	For I-97K series modules in slots
COM1/ttyO5	RS-232, Non-isolation	RS-232/RS-485, 3000 V_{DC} Isolation

COM2/ttyS0	RS-485 2500 V _{DC} Isolation	RS-485 3000 V_{DC} Isolation
COM3/ttyS1	RS-232/RS-485, Non-isolation	RS-232/RS-485, 3000 V_{DC} Isolation
COM4/ttyS34	RS-232, Non-isolation	RS-232, 3000 V_{DC} Isolation
I/O Expansion Slots		
Number of I/O slots	1 / 4 / 8	2 / 4 / 8
Supported types of I/O modules	I-8K and I-87K series I/O Modules	I-9K and I-97K series I/O Modules
Mechanical		
Dimensions (W x H x D unit: mm)	95 x 132 x 111 (1 Slot) 231 x 132 x 111 (4 Slots) 355 x 132 x 111 (8 Slots)	239 x 133 x 164 (2 Slots) 300 x 133 x 164 (4 Slots) 422 x 133 x 164 (8 Slots)
Enclosures	Plastic	Metal
Installation	DIN-Rail or Wall mounting	
Environmental		
Operating Temperature	-25 °C ~ +75 °C	
Storage Temperature	-30 °C ~ + 80 °C	
Ambient Relative Humidity	10 % ~ 90 % RH (Non-condensing)	
Input Range	+10 V _{DC} ~ +30 V _{DC}	
Redundant Power Inputs	Yes	
Isolation	1 kV	
Power Consumption	7.3 W (1 Slot) 9.1 W (4 Slots) 9.6 W (8 Slots)	10.8 W

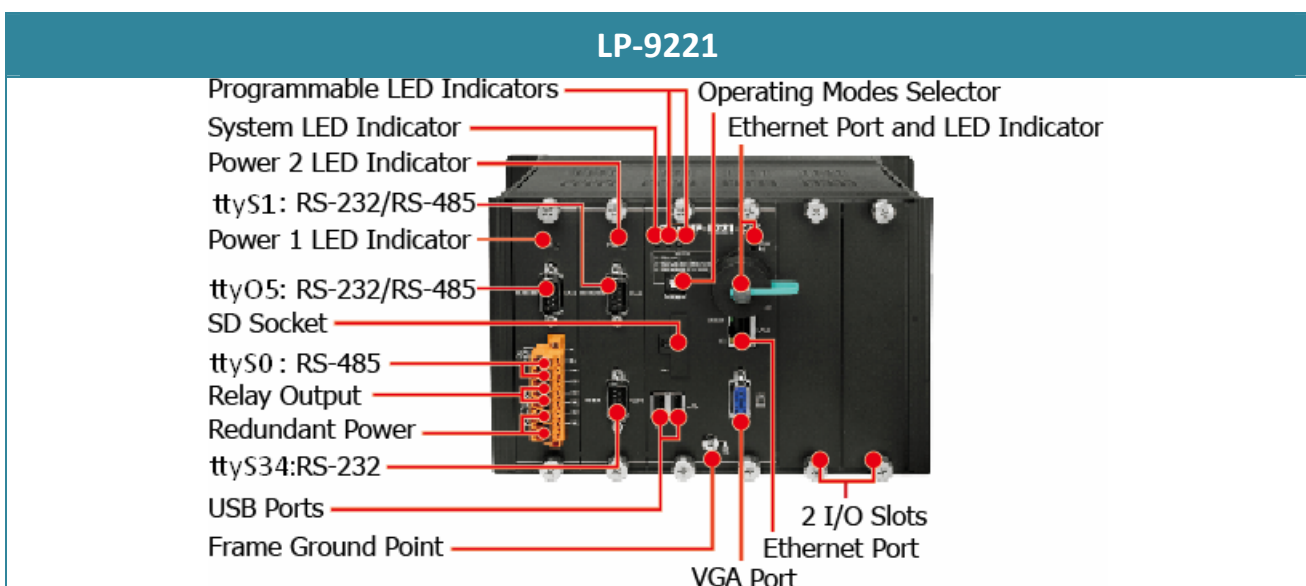
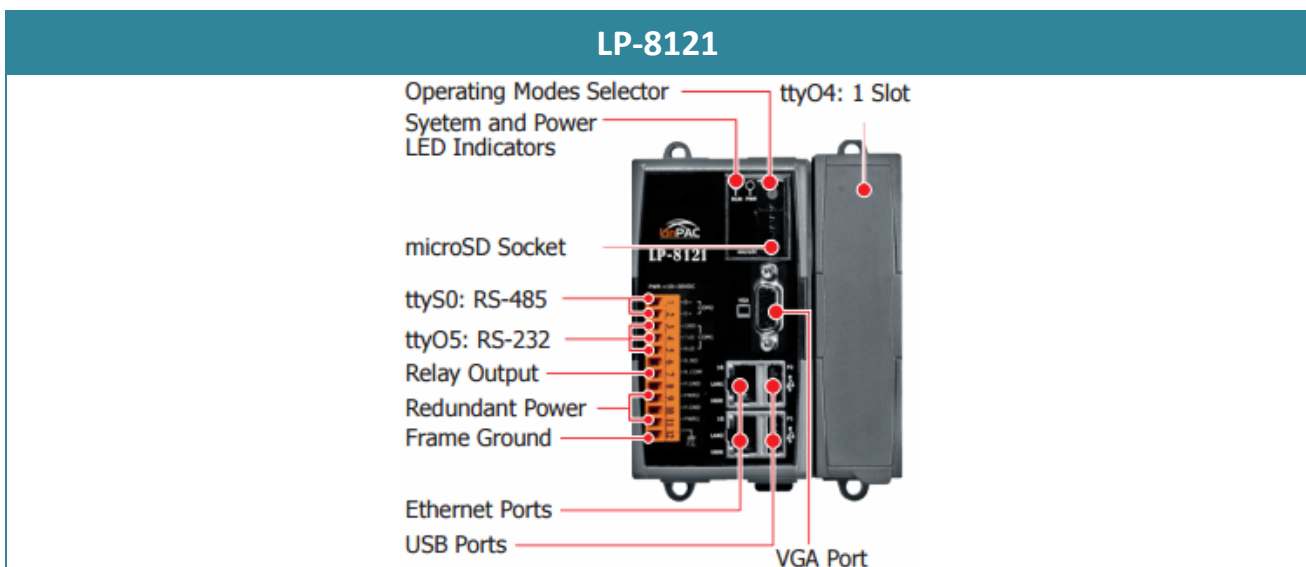
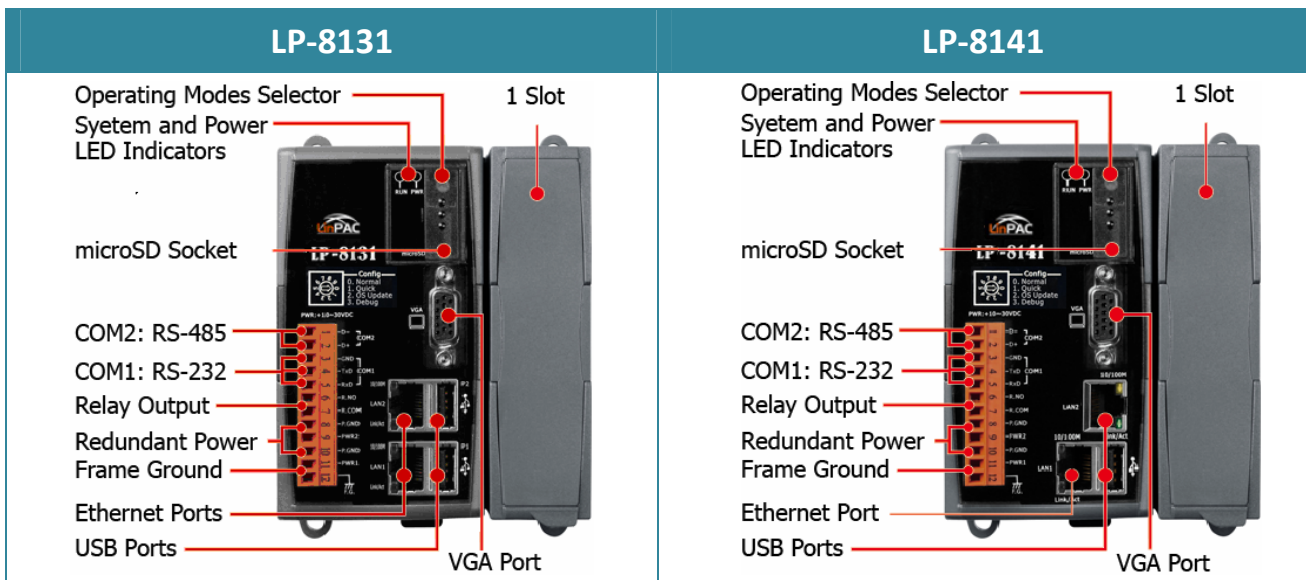
Features comparison

1. Non-volatile Memory (SRAM & MRAM)

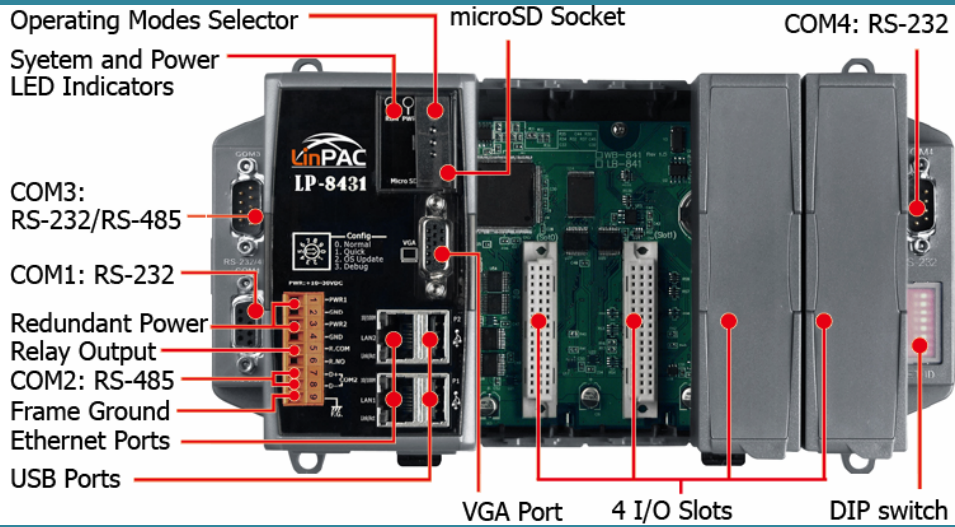
The LP-8x2x/9x2x is equipped with 128 KB MRAM (Magnetoresistive RAM) which is non-volatile memory that is not subject to degradation over time and removes any limits on the stored data, even when power is lost.

The LP-8x3x/8x4x series included 512 MB Dual BB SRAM. However, BB SRAM requires batteries in order to retain data. In addition, SRAM with dual battery backup only retains data for 5 years and requires maintenance in order to replace exhausted batteries. In contrast, MRAM doesn't require batteries.

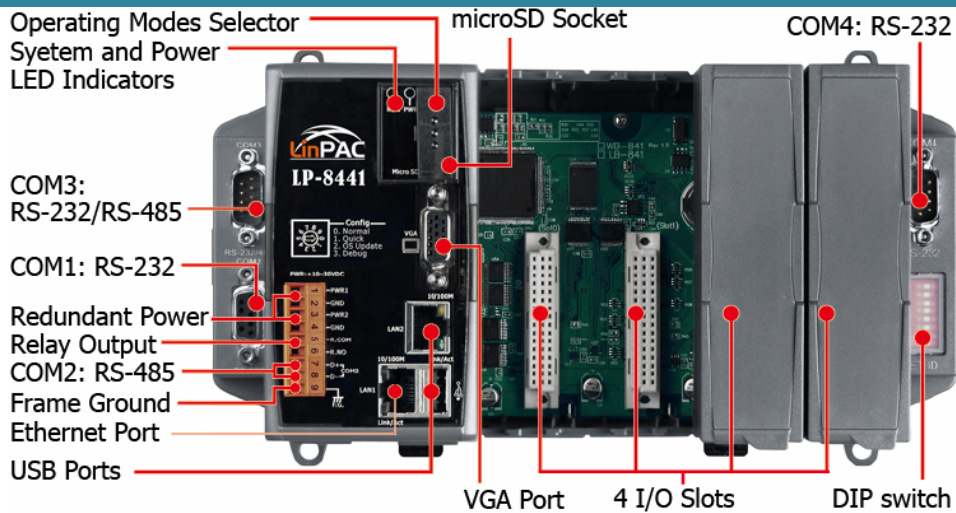
Overviews



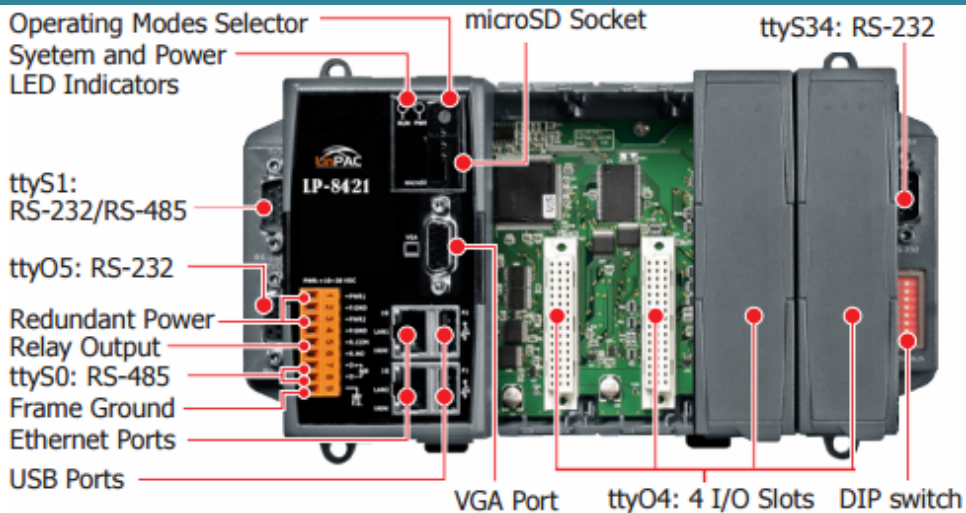
LP-8431



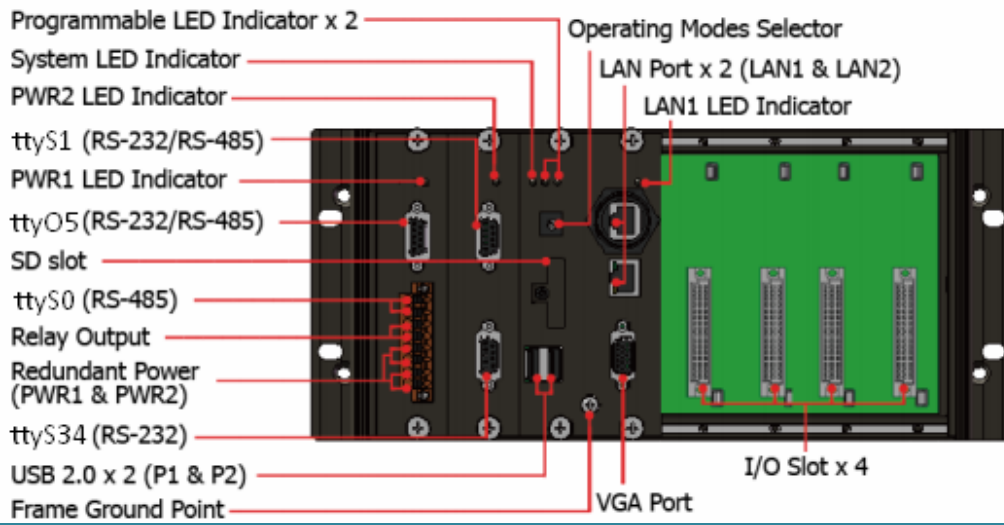
LP-8441



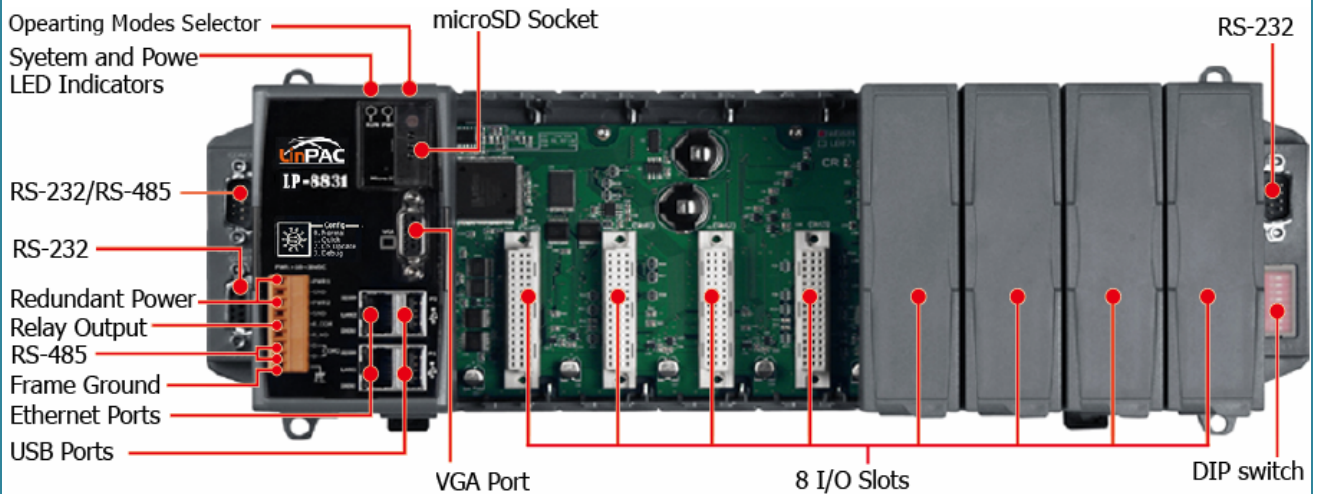
LP-8421



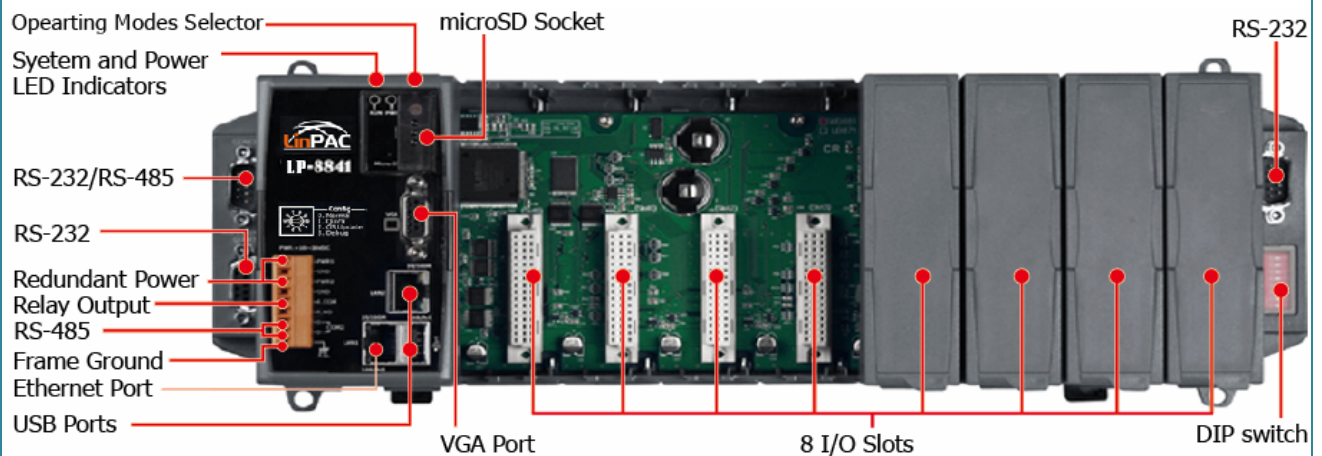
LP-9421



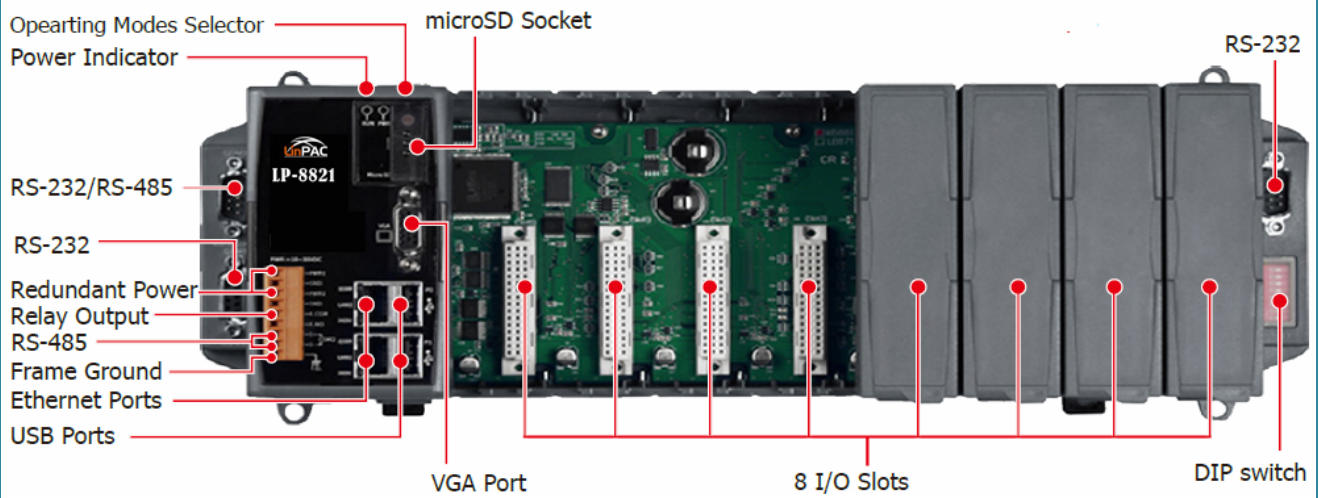
LP-8831



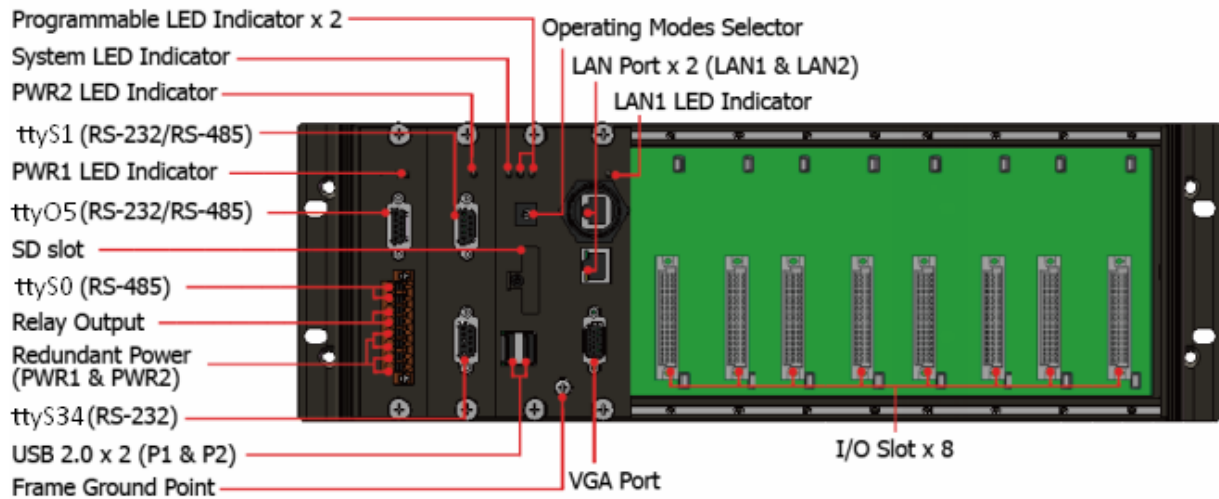
LP-8841



LP-8821



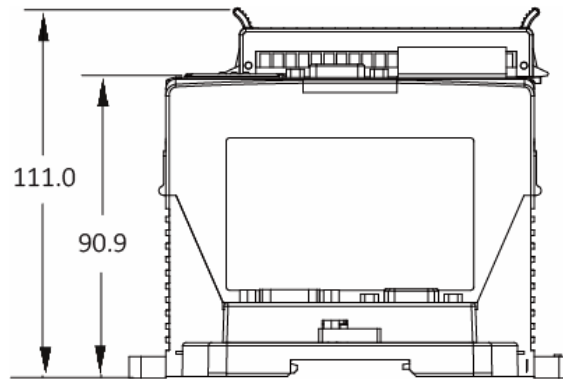
LP-9821



Dimensions (Units: mm)

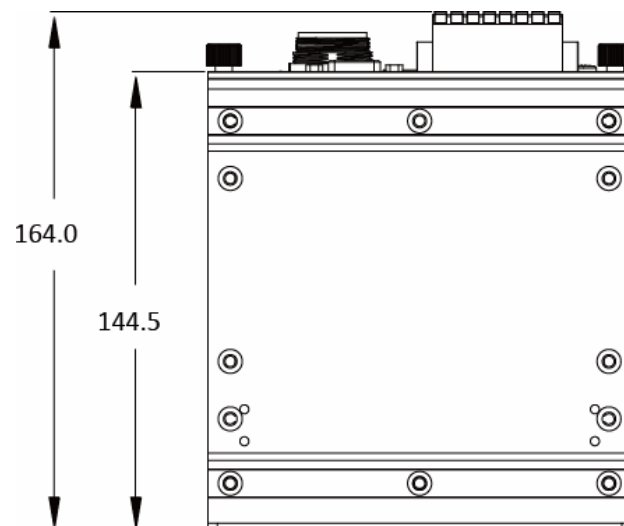
LP-8131/8141/8431/8441/8831/8841/8121/8421/8821

Left Side View



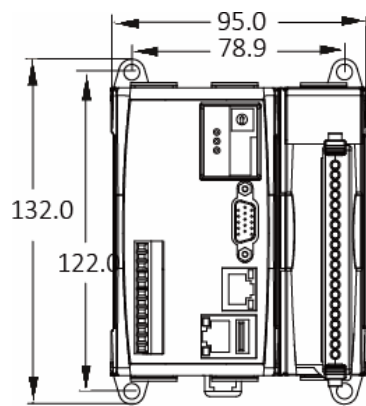
LP-9221/9421/9821

Left Side View



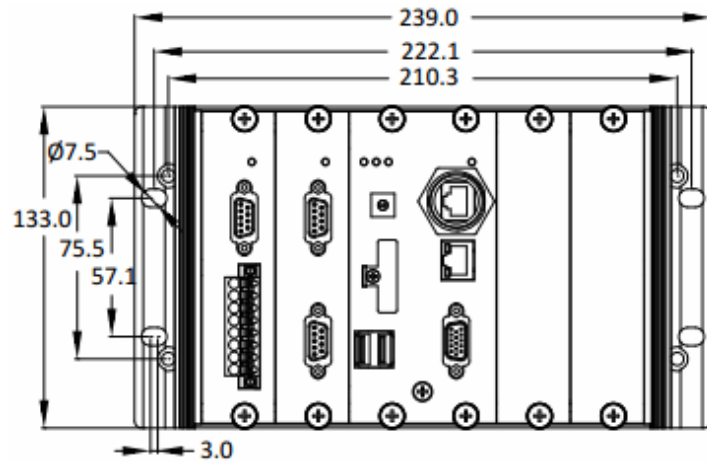
LP-8131/8141/8121

Front View



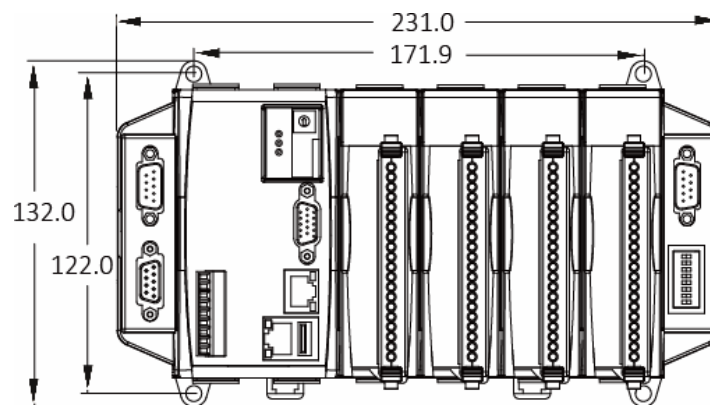
LP-9221

Front View



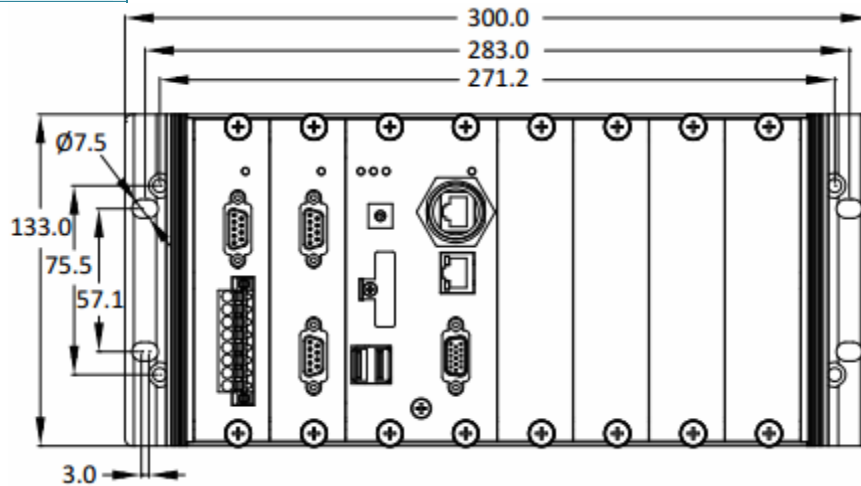
LP-8431/8441/8421

Front View



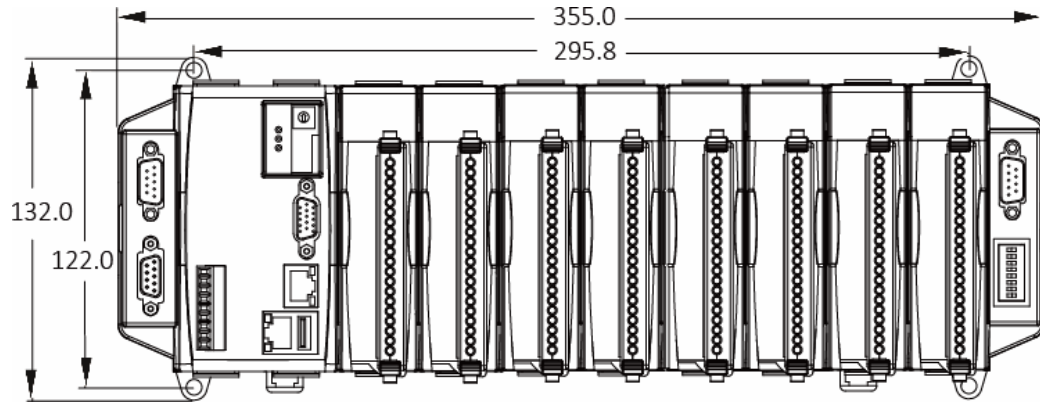
LP-9421

Front View



LP-8831/8841/8821

Front View



LP-9821

Front View

