

WP-8000 vs. WP-9000

Hardware Comparison

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Specifications



WP-8000



WP-9000-CE7

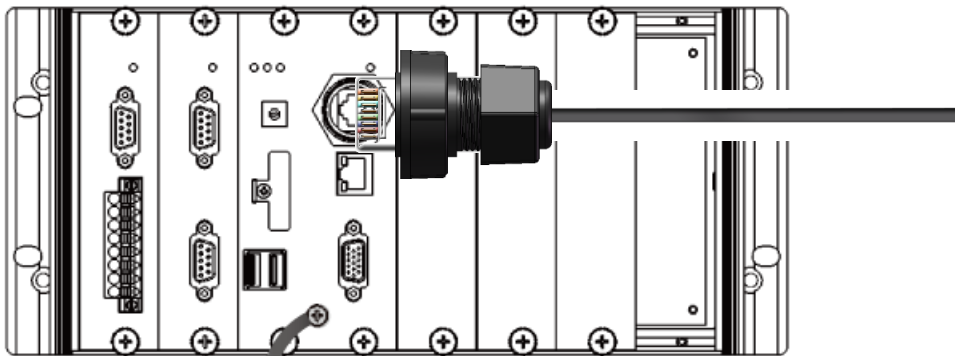
CPU		
CPU	PXA270 (32-bit/520 MHz) or compatible	Cortex-A8 (1.0 GHz) or compatible
SDRAM	128 MB	512 MB (DDR3)
Flash	96 MB	256 MB
Non-volatile Memory	Dual Battery Backup SRAM 512KB	MRAM 128KBs
EEPROM	16 KB	
SD/microSD	microSD socket with one microSD card	SD socket with one SD card
RTC (Real Time Clock)	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	8 bits	-
Rotary Switch (0 ~ 9)	Yes	
VGA & Communication Ports		
VGA Resolution	640 x 480, 800 x 600 1024 x 768 (WP-8x3x)	800 x 600, 1024 x 768
Ethernet	Connector	Rugged RJ-45 (LAN1) RJ-45 (LAN2)
	Type	10/100 Base-TX 10/100/ 1000 Base-TX
USB	USB 1.1 x 1	USB 2.0 x 2
COM 0	For I-87K series modules in slots	For I-97K series modules in slots
COM 1	RS-232, Non-isolation	RS-232/RS-485, 3000 V_{DC} Isolation

COM 2	RS-485 2500 V _{DC} Isolation	RS-485 3000 V_{DC} Isolation
COM 3	RS-232/RS-485, Non-isolation	RS-232/RS-485, 3000 V_{DC} Isolation
COM 4	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	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. Rugged RJ-45 connector for LAN1

The WP-9000-CE7 is equipped with a rugged and dustproof RJ-45 connector on the LAN1 port that is able to provide protection against both liquid and dust contaminants in harsh industrial environments, as well as protection against vibration and shock.



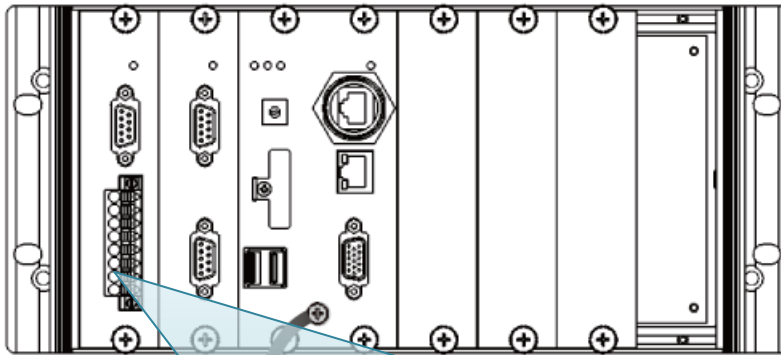
2. Non-volatile Memory (SRAM & MRAM)

The WP-9000-CE7 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 WP-8000 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.

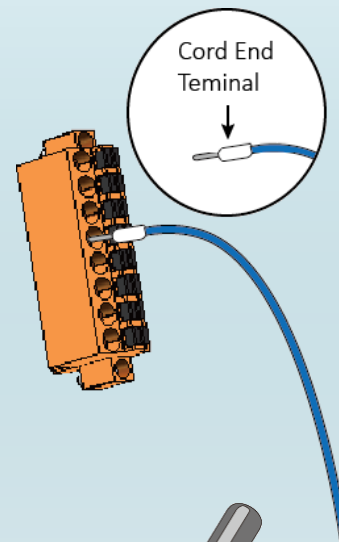
3. Power/Communication spring clamp terminal connector

Compared to screw terminals, the spring clamp terminal block that is used for the Power/Communication connector in the WP-9000-CE7 offers advantages including anti-vibration, stable clamping, and easier installation

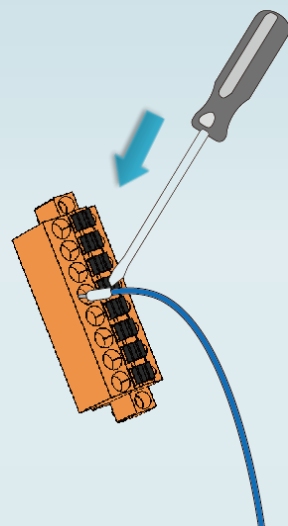


Wire connection

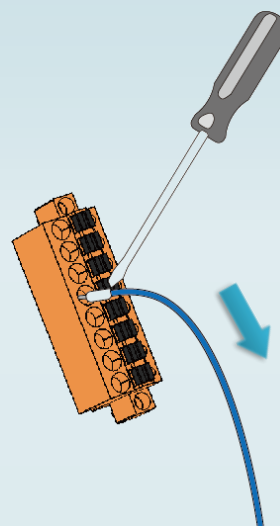
The cord end on the wire can be directly connected to the terminal



Wire disconnection





Use a screwdriver to press down the black clip.



Remove the wire from the terminal block

Overviews

WP-8131	WP-8141
<p>Operating Modes Selector</p> <p>System and Power LED Indicators</p> <p>microSD Socket</p> <p>COM2: RS-485</p> <p>COM1: RS-232</p> <p>Relay Output</p> <p>Redundant Power</p> <p>Frame Ground</p> <p>Ethernet Ports</p> <p>USB Ports</p> <p style="text-align: right;">1 Slot</p> <p style="text-align: right;">VGA Port</p> 	<p>Operating Modes Selector</p> <p>System and Power LED Indicators</p> <p>microSD Socket</p> <p>COM2: RS-485</p> <p>COM1: RS-232</p> <p>Relay Output</p> <p>Redundant Power</p> <p>Frame Ground</p> <p>Ethernet Port</p> <p>USB Ports</p> <p style="text-align: right;">1 Slot</p> <p style="text-align: right;">VGA Port</p> 

WP-9221-CE7

Programmable LED Indicators

System LED Indicator

Power 2 LED Indicator

COM3: RS-232/RS-485

Power 1 LED Indicator

COM1: RS-232/RS-485

SD Socket

COM2: RS-485

Relay Output

Redundant Power

COM4: RS-232

USB Ports

Frame Ground Point


VGA Port

Operating Modes Selector

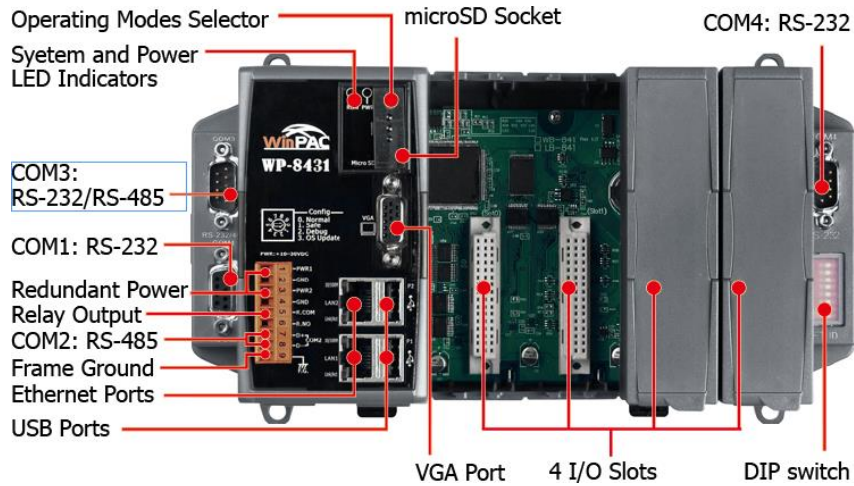
IP 67 - Ethernet Port and LED Indicator

2 I/O Slots

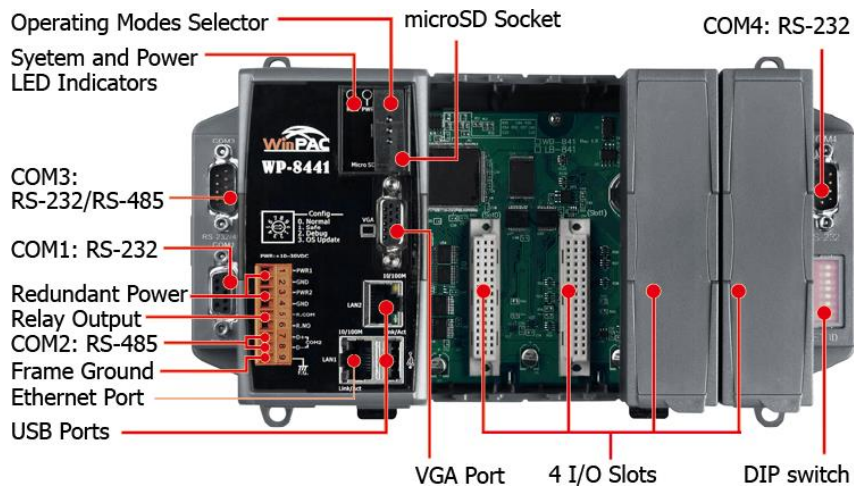
Ethernet Port



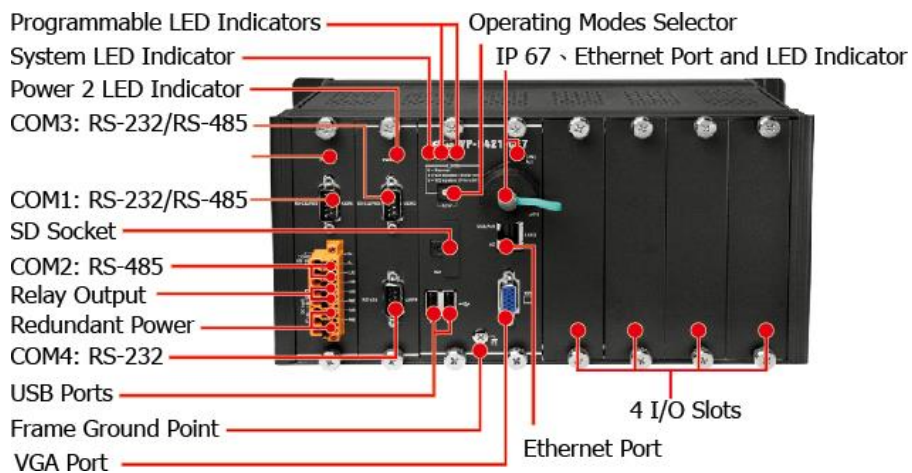
WP-8431



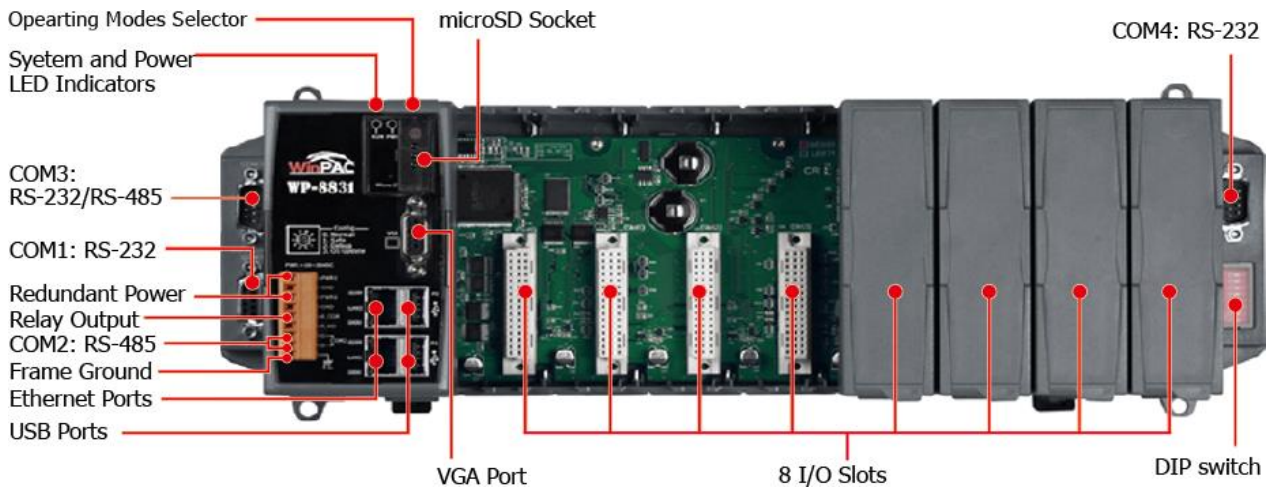
WP-8441



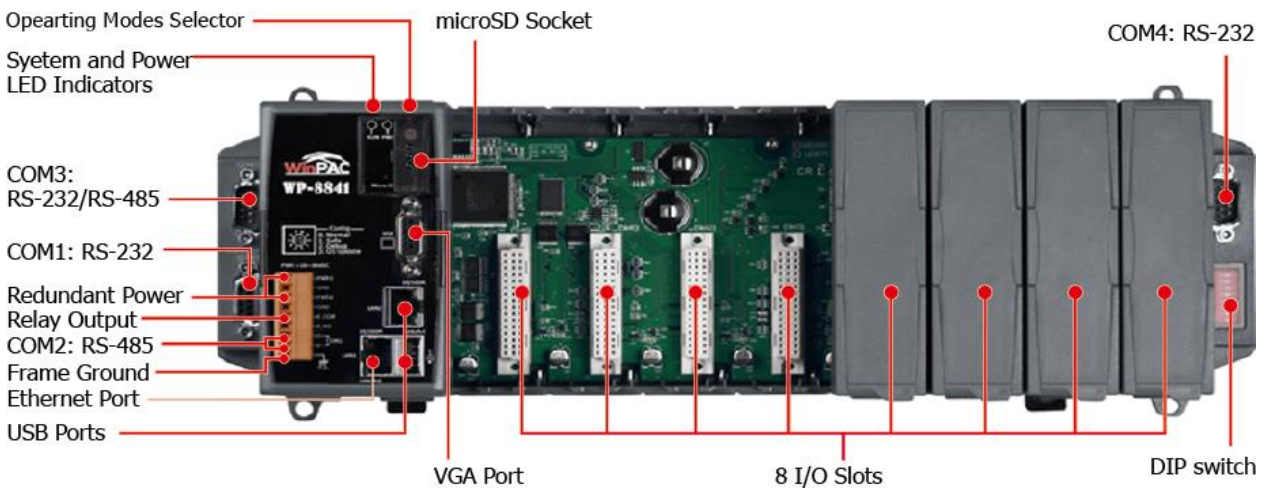
WP-9421-CE7



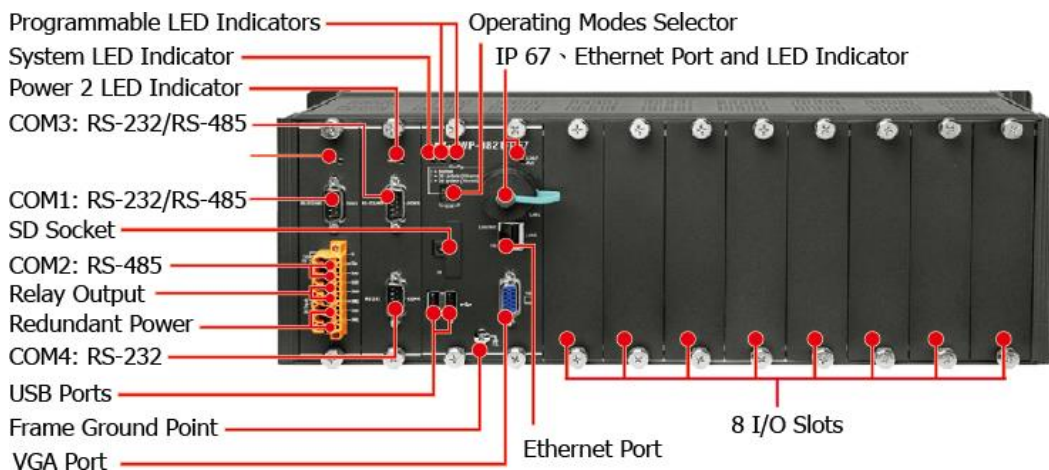
WP-8831



WP-8841



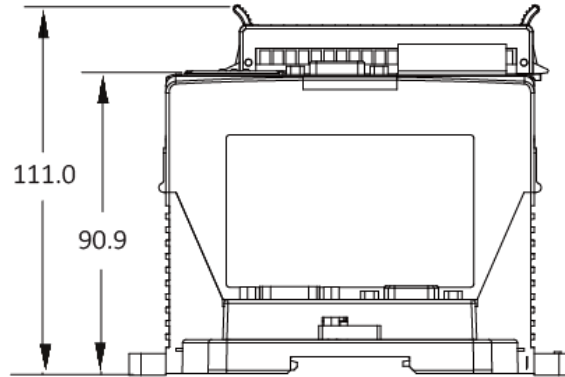
WP-9821-CE7



Dimensions (Units: mm)

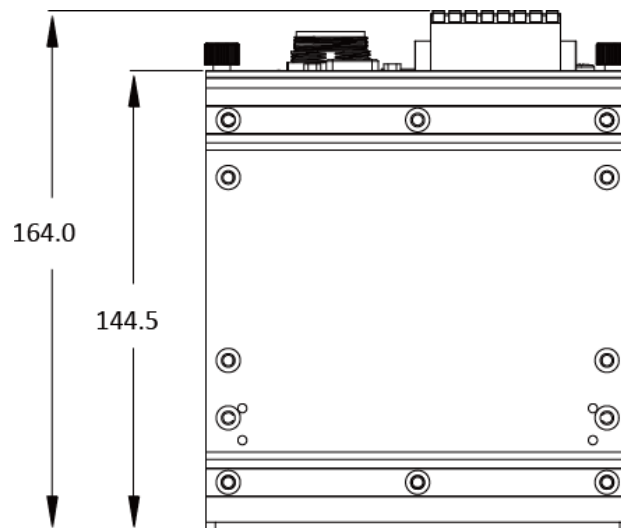
WP-8131/WP-8141/WP-8431/WP-8441/WP-8831/WP-8841

Left Side View



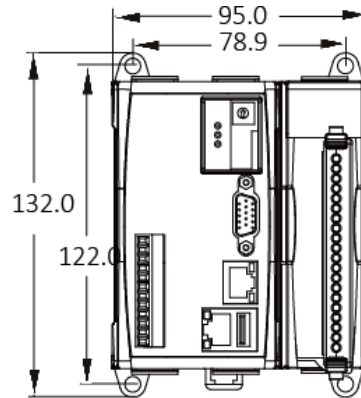
WP-9221/WP-9421/WP-9821

Left Side View



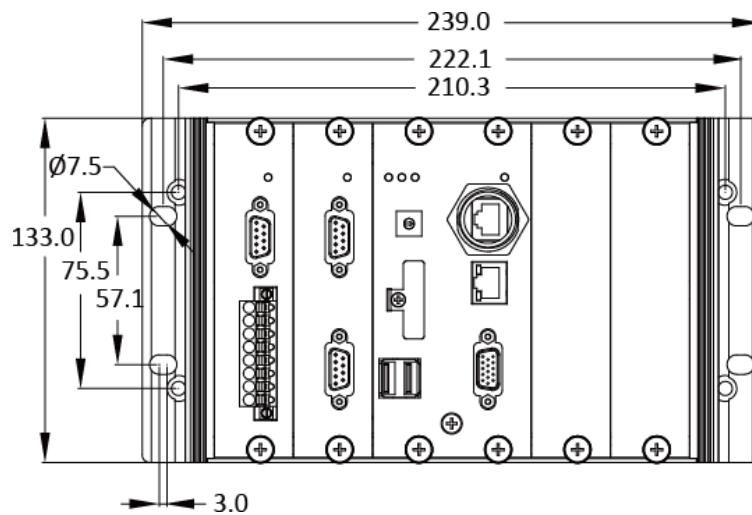
WP-8131/WP-8141

Front View



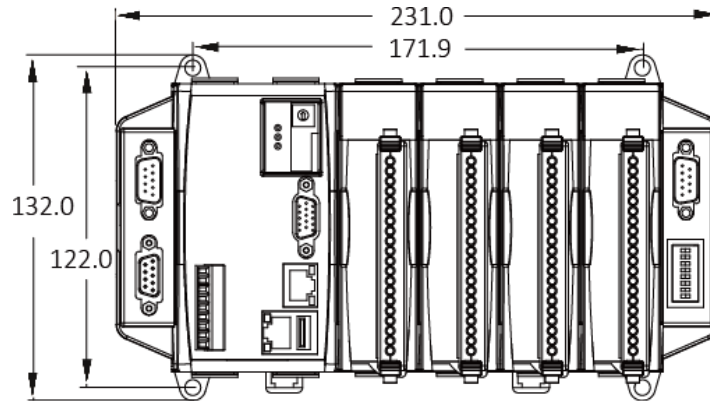
WP-9221

Front View



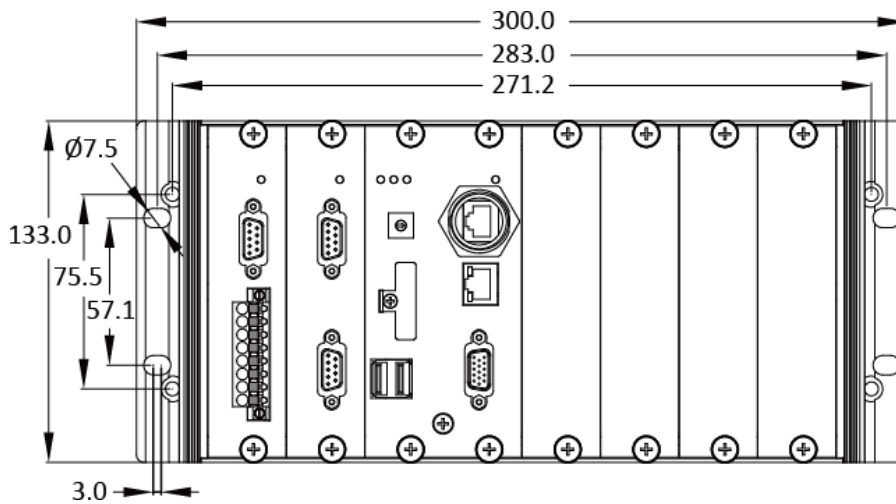
WP-8431/WP-8441

Front View



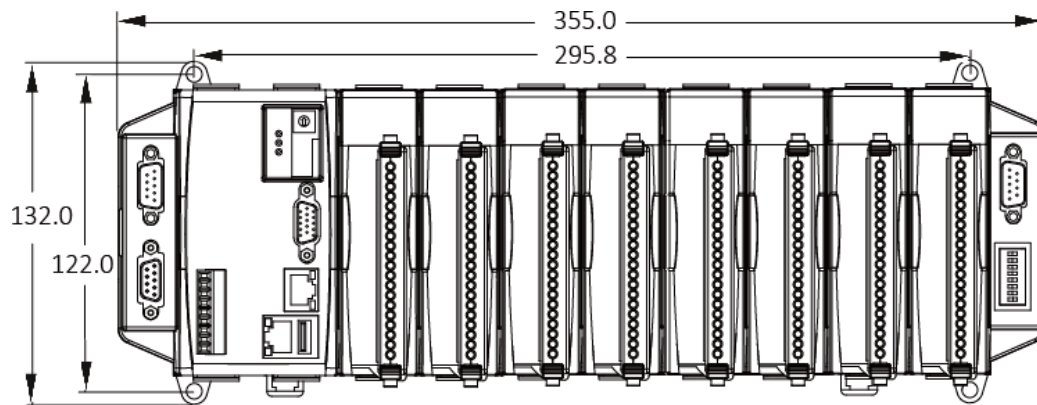
WP-9421

Front View



WP-8831/WP-8841

Front View



WP-9821

Front View

