

PDS-811/PDS-821

Programmable Serial-to-Ethernet Device Server
with 2-port Ethernet Switch and Expansion Slot(s)

Features

- Incorporate Serial Devices in an Ethernet network
- "Virtual COM" extends PC COM ports
- VxComm Driver for 32- and 64-bit Windows 7 SP1/10/2012/2016
- Programmable Internet/Ethernet Controller
- Watchdog Timer suitable for use in harsh environments
- Built-in High performance MiniOS7 from ICP DAS

System Specifications

Models	PDS-811	PDS-821
CPU		
CPU	80186, 80 MHz or compatible	
SRAM	512 KB	
Flash Memory	512 KB	
EEPROM	16 KB	
NVRAM	-	
RTC (Real Time Clock)	-	
64-bit Hardware Serial Number	-	
Built-in Watchdog Timer	Yes	
I/O Expansion Slots	1 Slot	2 Slots
Communication Interface		
COM1 (Console)	RS-232 (TxD, RxD, GND)	
Ethernet	2-port 10/100 Base-TX Ethernet Switch (Auto-negotiating, auto MDI/MDI-X, LED indicator)	
COM Port Formats		
Data Bit	7, 8	
Parity	None, Even, Odd	
Stop Bit	1	
Baud Rate	115200 bps max.	
LED Indicators		
TxD/RxD	Yes	
System	Yes	
Power		
ESD Protection	Yes (with Frame Ground)	
Protection	Power Reverse Polarity Protection	
Required Supply Voltage	+10 VDC ~ +30 VDC	
Power Consumption	0.6 A @ 5 V for CPU and Backplane, 1.0 A @ 5 V for Plug-in Modules, Total: 8 W	
Mechanical		
Flammability	Fire Retardant Materials (UL94-V0 Level)	
Dimensions (W x L x H)	64 mm x 120 mm x 110 mm	95 mm x 132 mm x 110 mm
Installation	DIN-Rail	DIN-Rail or Wall mounting
Casing	Plastic	
Environment		
Operating Temperature	-25 °C ~ +75 °C	
Storage Temperature	-40 °C ~ +80 °C	
Humidity	5 ~ 90% RH, non-condensing	

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Introduction

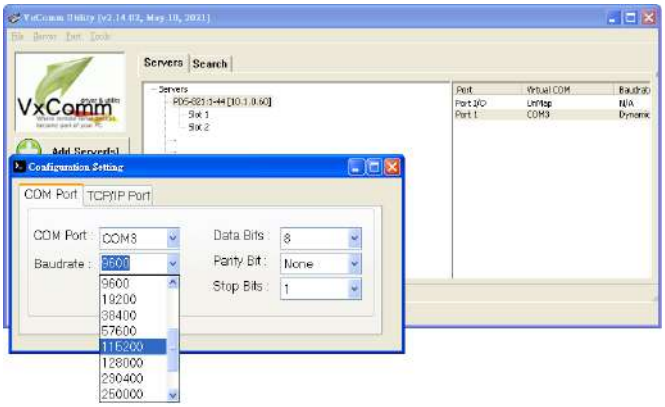
The PDS-811 and PDS-821 programmable device servers (PDS) are compact, modular, intelligent, rugged, and are designed for networking RS-232 and RS-422/485 serial devices to an Ethernet network. The PDS-811 has one I/O expansion slot, while PDS-821 has two I/O expansion slots that can be used to attach various 2- or 4-port serial communication modules. Therefore, a maximum of 4 serial ports can be installed on the PDS-811 or a maximum of 8 serial ports can be installed on the PDS-821.

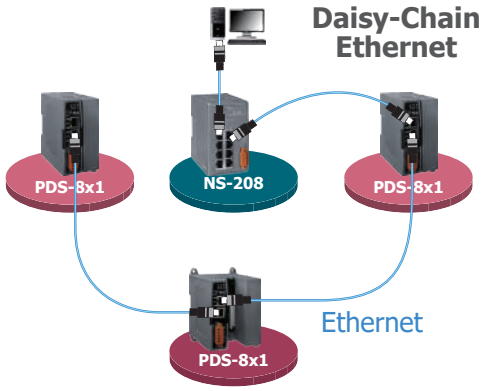


Note: There is no serial module built-in to the PDS-811 or PDS-821 by default.

The PDS-811 and PDS-821 controllers are equipped with a 2-port 10/100 Base-TX Ethernet Switch that can be used to connect two network segments. The Ethernet Switch processes and routes data on the data-link layer (layer 2) of the OSI model to create a different collision domain per switch port. Using a switch allows you to attain dedicated bandwidth on point-to-point connections with every computer, and therefore run in full duplex mode with no collisions. Furthermore, the built-in 2-port Ethernet Switch on the PDS-811/821 enables network wiring to be simplified by cascading your Ethernet devices.

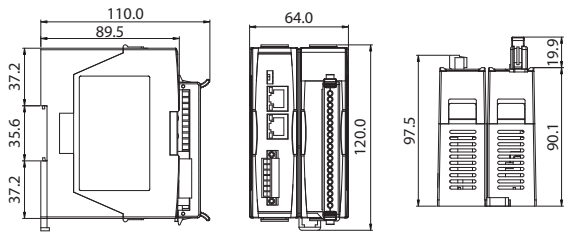
The PDS-8x1 series contains a built-in operating system, the MiniOS7, which offers a stable and high performance environment that is similar to DOS. The MiniOS7 can boot up the PDS-8x1 series within just one second, with the added benefit of no virus problems and a small footprint. Furthermore, the PDS-8x1 series is designed for low power consumption, maintenance elimination (no hard disk and no fan), and is constructed from fire retardant materials (UL94-V0 level) with a robust case.





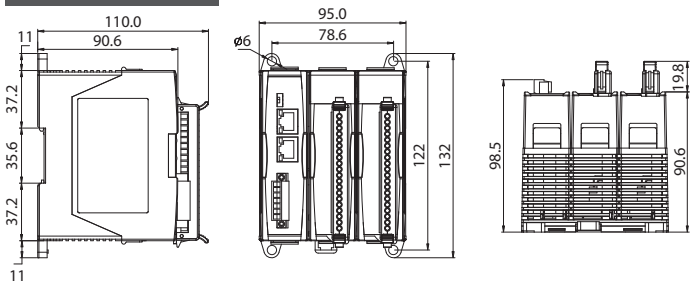
Dimensions (Units: mm)

PDS-811



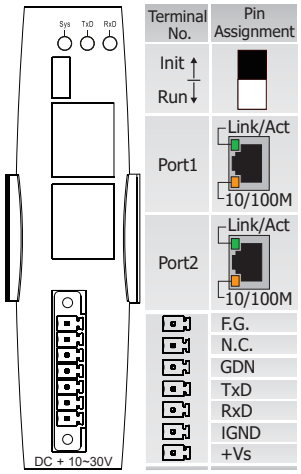
Left Side View | Front View | Bottom View

PDS-821



Left Side View | Front View | Bottom View

Pin Assignments



Terminal No.	Pin Assignment
Init / Run	
Port1	Link/Act, 10/100M
Port2	Link/Act, 10/100M
	F.G.
	N.C.
	GDN
	TxD
	RxD
	IGND
	+Vs

Ordering Information

PDS-811 CR	Programmable Serial-to-Ethernet Device Server with 2-port Ethernet Switch and 1 Expansion Slots (RoHS) Includes CA-0910 Cable
PDS-821 CR	Programmable Serial-to-Ethernet Device Server with 2-port Ethernet Switch and 2 Expansion Slots (RoHS) Includes CA-0910 Cable

Accessories

CA-0910 CR	DB9 Female to 3-wire Cable [RS-232; Pin2, Pin3 and Pin5], 1M (RoHS)
NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch (RoHS)

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