

PDS(M)-782(D)
PPDS(M)-782(D)-MTCP

Programmable (7x RS-232 and 1x RS-485)
Serial-to-Ethernet Device Server

Features

- Incorporate Serial Devices in an Ethernet network
- "Virtual COM" Extend COM Ports
- Virtual COM supports 32-bit and 64-bit Windows 7 SP1/10/2012/2016
- Supports Modbus TCP to RTU/ASCII Gateway
- Powerful Programmable Device Server
- Watchdog Timer suitable for use in harsh environments
- Serial Port +/-4 kV ESD Protection Circuit
- Self-Tuner ASIC Controller on the RS-485 Port
- Built-in High Performance MiniOS7 from ICP DAS
- Palm-Sized with multiple Serial Ports

Introduction

The PDS-700 series is a family of Programmable Device Servers, also known as "Serial-to-Ethernet gateway", that are designed for linking RS-232/422/485 devices to an Ethernet network. The user-friendly VxComm Driver/Utility allows users to easily turn the built-in COM ports of the PDS-700 series into standard COM ports on a PC. By virtue of its protocol independence, a small-core OS and high flexibility, the PDS-700 series is able to meet the demands of every network-enabled application.

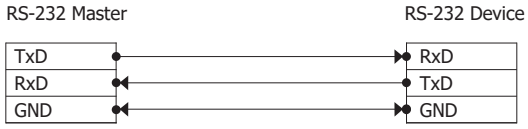
The PDS-700 series includes a powerful and reliable Xserver programming structure that allows you to design your robust Ethernet applications in one day. The built-in, high-performance MiniOS7 boots the PDS-700 up in just one second and gives you fastest responses. It also works as a Modbus TCP to RTU/ASCII gateway that supports most SCADA/HMI communications based on the Modbus/TCP protocol.

The PPDS-700-MTCP series features true IEEE 802.3af-compliant (classification, Class 1) Power over Ethernet (PoE) using a standard category 5 Ethernet cable to receive power from a PoE switch like the NS-205PSE. The PDSM-700 is the PDS-700 with Metal Case (RoHS) and the PPDSM-700-MTCP is the PPDS-700-MTCP with Metal Case (RoHS). Metal Case version includes stronger protection than PDS-700 and PPDS-700-MTCP.

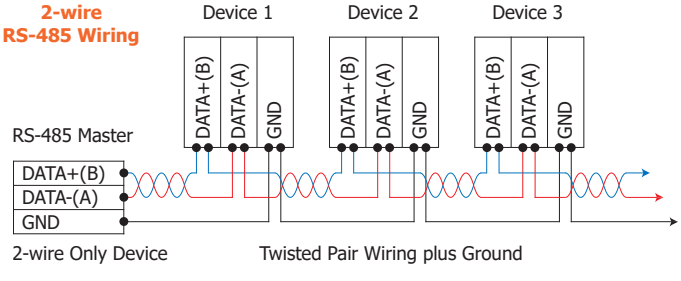
The PDS(M)-782(D) and PPDS(M)-782(D)-MTCP is equipped with 7 RS-232 ports and 1 RS-485 port. The removable on-board terminal block connector is designed for easy and robust wiring in industrial situations.

Wiring

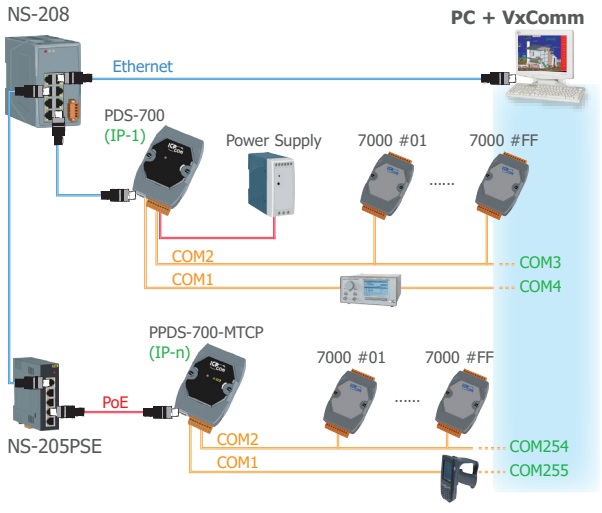
3-wire RS-232 Wiring



2-wire RS-485 Wiring



Applications



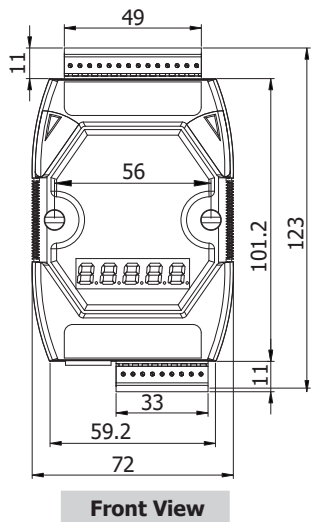
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System Specifications

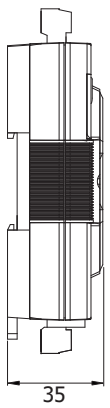
Models		PDS-782 PDSM-782	PDS-782D PDSM-782D	PPDS-782-MTCP PPDSM-782-MTCP	PPDS-782D-MTCP PPDSM-782D-MTCP
CPU					
CPU		80186, 80 MHz or compatible			
SRAM		512 KB			
Flash Memory		Flash ROM: 512 KB; Erase unit is one sector (64 KB); 100,000 erase/write cycles			
EEPROM		16 KB; Data retention: 40 years; 1,000,000 erase/write cycles			
Built-in Watchdog Timer		Yes			
Communication Interface					
Non-isolated	COM1	RS-232 (TxD, RxD, RTS, CTS, GND)			
	COM2	RS-485 (D2+, D2-, GND)			
	COM3	RS-232 (TxD, RxD, GND)			
	COM4	RS-232 (TxD, RxD, GND)			
	COM5	RS-232 (TxD, RxD, GND)			
	COM6	RS-232 (TxD, RxD, GND)			
	COM7	RS-232 (TxD, RxD, GND)			
	COM8	RS-232 (TxD, RxD, GND)			
Ethernet		10/100 Base-TX, RJ-45 port (Auto-negotiating, auto MDI/MDI-X, LED indicator)			
PoE		-		IEEE 802.3af	
COM Port Formats					
Data Bit		7, 8: for COM1 and COM2，5, 6, 7, 8: for COM3 and COM8			
Parity		None, Even, Odd, Mark, Space None parity is required when using 8 data bits and 2 stop bits on COM1/COM2.			
Stop Bit		1, 2: for COM1 ~ COM8			
Baud Rate		115200 bps max.			
LED Indicators					
5-digit 7 Segment		-	Yes	-	Yes
System		Red			
PoE		-		Green	
Power					
Protection		Power Reverse Polarity Protection			
Required Supply Voltage		+10 VDC ~ +30 VDC		PoE or +12 VDC ~ +48 VDC	
Power Consumption		2.0 W	2.7 W	2.2 W	2.9 W
Mechanical					
Flammability		Fire Retardant Materials (UL94-V0 Level)			
Dimensions (W x L x H)		(P)PDS: 72 mm x 35 mm x 123 mm，(P)PDSM: 102 mm x 29 mm x 125 mm			
Installation		(P)PDS-700 Series: DIN-Rail or Wall mounting, (P)PDSM-700 Series: Wall mounting			
Casing		Metal for PDSM/PPDSM，Plastic for other			
Environment					
Operating Temperature		-25 °C ~ +75 °C			
Storage Temperature		-40 °C ~ +80 °C			
Humidity		5 ~ 90% RH, non-condensing			

Dimensions (Units: mm)

(P)PDS-782(D) ▼

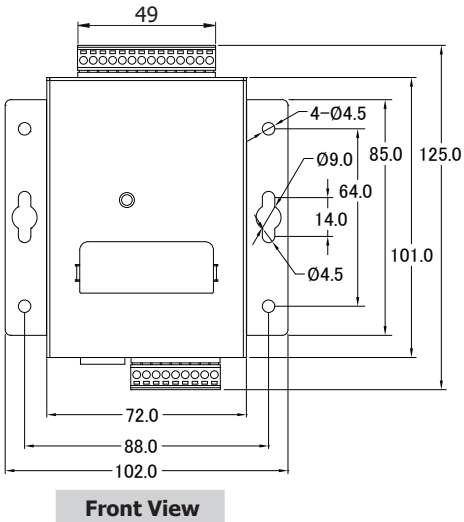


Front View

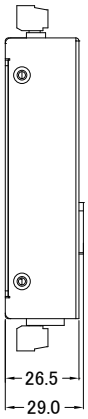


Left Side View

(P)PDSM-782(D)(-MTCP) ▼



Front View

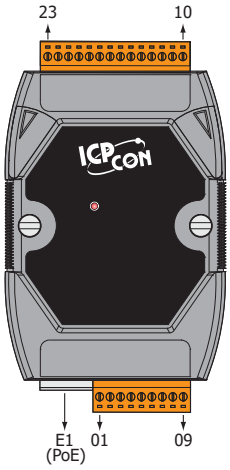


Left Side View

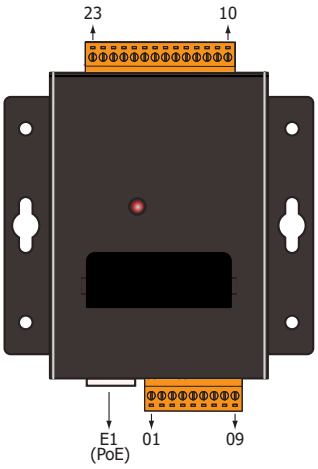
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Pin Assignments

Terminal No.		Pin Assignment
E1		Link/Act 10/100M
COM1	01	CTS1
	02	RTS1
	03	RxD1
	04	TxD1
	05	INIT*
COM2	06	D2+
	07	D2-
	08	(R)+Vs
	09	(B)GND



(P)PDS-782(D)(-MTCP)



(P)PDSM-782(D)(-MTCP)

Terminal No.		Pin Assignment
COM8	23	TxD8
	22	RxD8
COM7	21	TxD7
	20	RxD7
	19	GND
COM6	18	TxD6
	17	RxD6
COM5	16	TxD5
	15	RxD5
	14	GND
COM4	13	TxD4
	12	RxD4
COM3	11	TxD3
	10	RxD3

Ordering Information

PDS-782 CR	Programmable (7x RS-232 and 1x RS-485) Serial-to-Ethernet Device Server (RoHS) Includes CA-0910 Cable
PDS-782D CR	Programmable (7x RS-232 and 1x RS-485) Serial-to-Ethernet Device Server and LED Display (RoHS) Includes CA-0910 Cable
PPDS-782-MTCP CR	Programmable (7x RS-232 and 1x RS-485) Serial-to-Ethernet Device Server, PoE and Modbus Gateway (RoHS) Includes CA-0910 Cable
PPDS-782D-MTCP CR	Programmable (7x RS-232 and 1x RS-485) Serial-to-Ethernet Device Server, PoE, Modbus Gateway and LED Display (RoHS) Includes CA-0910 Cable
PDSM-782 CR	Programmable (7x RS-232 and 1x RS-485) Serial-to-Ethernet Device Server (Metal Case) (RoHS) Includes CA-0910 Cable
PDSM-782D CR	Programmable (7x RS-232 and 1x RS-485) Serial-to-Ethernet Device Server and LED Display (Metal Case) (RoHS) Includes CA-0910 Cable
PPDSM-782-MTCP CR	Programmable (7x RS-232 and 1x RS-485) Serial-to-Ethernet Device Server, PoE and Modbus Gateway (Metal Case) (RoHS) Includes CA-0910 Cable
PPDSM-782D-MTCP CR	Programmable (7x RS-232 and 1x RS-485) Serial-to-Ethernet Device Server, PoE, Modbus Gateway and LED Display (Metal Case) (RoHS) Includes CA-0910 Cable

Accessories

CA-0903 CR	DB9 Female to 5-wire Cable [RS-232], 30cm (RoHS)
NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch (RoHS)
NS-205PSE CR	Unmanaged 5-port 10/100 Mbps PoE (PSE) Ethernet Switch (RoHS)

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