3.2. PDS-700 & PPDS-700-MTCP Programmable Device Servers

NEW **PDS-720(D)**

Available soon **PPDS-720(D)-MTCP**

Programmable Device Server with 1 RS-232 port and 1 RS-485 port

RS-232/RS-485

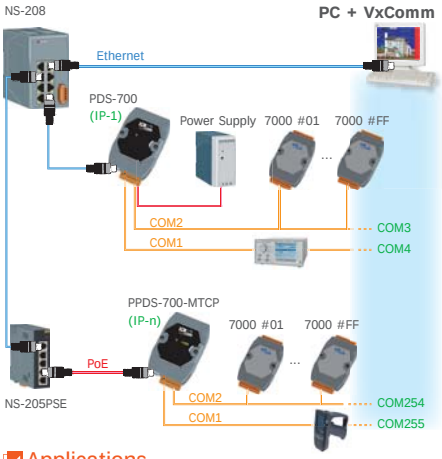
Features

- Incorporate Serial Devices in an Ethernet network
- Virtual COM on Windows NT 4.0, 2000/XP/2003 and Vista32
- Powerful Programmable Device Server
- Watchdog Timer suitable for use in harsh environments
- Power Reverse Polarity Protection
- Serial Port +/-4 kV ESD Protection Circuit
- Self-Tuner ASIC Controller on the RS-485 Port
- 5-digit LED Display (for versions with a display)
- RoHS Compliant with no Halogen
- Built-in High Performance MiniOS7 from ICP DAS
- 10/100 Base-TX Ethernet, RJ-45 Port (Auto-negotiating, auto MDI/MDI-X, LED indicator)
- PPDS-720(D)-MTCP supports Modbus/TCP and Modbus/RTU
- PPDS-720(D)-MTCP supports PoE (IEEE 802.3af, Class 1)
- Low power consumption
- Palm-Sized with multiple Serial Ports
- Made from fire retardant materials (UL94-V0 Level)

CE FC RoHS PoE

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.
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 PPDS-700-MTCP also works as a Modbus/TCP to Modbus/RTU gateway that supports most SCADA/HMI communications based on the Modbus/TCP protocol.
The PDS-720(D) and PPDS-720(D)-MTCP is equipped with 1 RS-232 port and 1 RS-485 port. The removable on-board terminal block connector is designed for easy and robust wiring in industrial situations.



Applications

Factory, Building and Home Automation

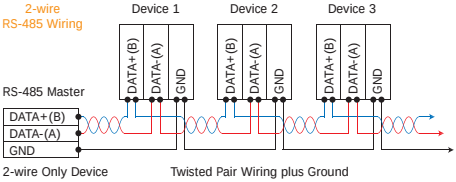
System Specifications

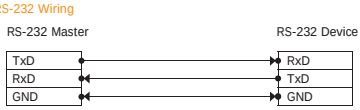
Models		PDS-720	PDS-720D	PPDS-720-MTCP	PPDS-720D-MTCP
CPU					
CPU		80186, 80 MHz or compatible			
SRAM		512 KB			
Flash Memory		Flash ROM: 512 KB; Erase unit is one sector (64 KB); 100,000 erase/write cycles			
EEPROM		16 KB; Data retention: 40 years; 1,000,000 erase/write cycles			
Built-in Watchdog Timer		Yes			
Communication Interface					
Non-isolated	COM1	RS-232 (TxD, RxD, RTS, CTS, GND)			
	COM2	RS-485 (D2+, D2-, GND)			
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			
Parity		None, Even, Odd, Mark, Space			
Stop Bit		1: for COM1 and COM2			
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 (non-regulated)		PoE or +12 Vdc ~ +48 Vdc (non-regulated)	
Power Consumption		2.0 W	2.7 W	2.2 W	2.9 W
Mechanical					
Flammability		Fire Retardant Materials (UL94-V0 Level)			
Dimensions		72 mm x 112 mm x 35 mm (W x H x D)			
Installation		DIN-Rail or Wall mounting			
Environment					
Operating Temperature		-25 °C ~ +75 °C			
Storage Temperature		-40 °C ~ +80 °C			
Humidity		5 ~ 90% RH, non-condensing			

Pin Assignments

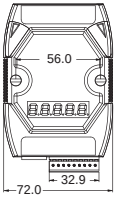
Terminal No.		Pin Assignment
E1		Link/Act 10/100M
COM1	01	CTS1
	02	RTS1
	03	RxD1
	04	TxD1
	05	INIT*
COM2	06	D2+
	07	D2-
	08	(R)+Vs
	09	(B)GND

Wiring

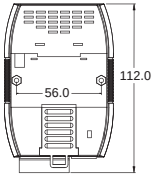




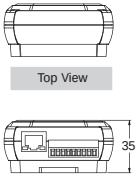
Dimensions (Unit: mm)



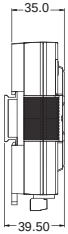
Front View



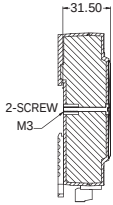
Back View



Bottom View



Din-Rail Mounting Bracket



Side View

Ordering Information

PDS-720 CR	Programmable Device Server with 1 RS-232 port and 1 RS-485 port (RoHS) Includes One CA-0910 Cable
PDS-720D CR	Programmable Device Server with 1 RS-232 port, 1 RS-485 port and an LED Display (RoHS) Includes One CA-0910 Cable
PPDS-720-MTCP CR	Programmable Device Server with PoE, Modbus/TCP, 1 RS-232 port and 1 RS-485 port (RoHS) Includes One CA-0910 Cable
PPDS-720D-MTCP CR	Programmable Device Server with PoE, Modbus/TCP, 1 RS-232 port, 1 RS-485 port and an LED Display (RoHS) Includes One CA-0910 Cable

Accessories

GPSU06U-6	24 Vdc/0.25 A, 6 W Power Supply
MDR-20-24	24 Vdc/1 A, 24 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48 Vdc/0.52 A, 25 W Power Supply with Din-Rail Mounting
CA-0903	9-Pin Female D-Sub and RS-232 Connector Cable, 30 cm Cable
CA-0910	9-Pin Female D-Sub and 3-wire RS-232 Cable, 1 m Cable
NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch (RoHS)
NS-205PSE CR	Unmanaged Ethernet Switch with 4 PoE Ports and 1 RJ-45 Uplink (RoHS)