



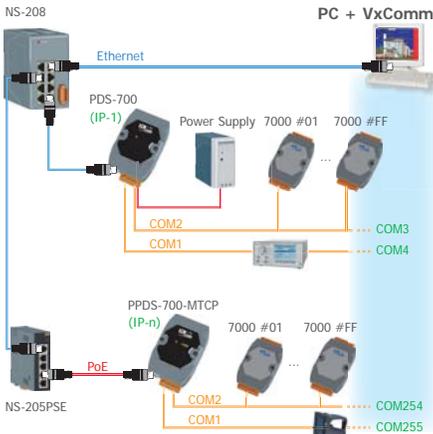
**Introduction**

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-755(D) and PPDS-755(D)-MTCP is equipped with 1 RS-232 port and 4 RS-485 ports. The removable on-board terminal block connector is designed for easy and robust wiring in industrial situations.



**Applications**

Factory, Building and Home Automation

**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-755(D)-MTCP supports Modbus/TCP and Modbus/RTU
- PPDS-755(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)

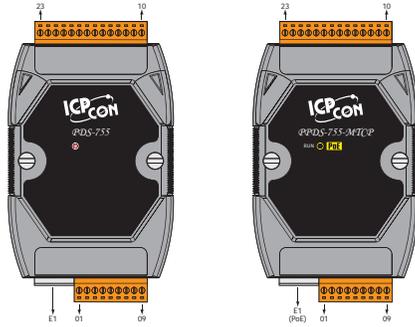


**System Specifications**

Models	PDS-755	PDS-755D	PPDS-755-MTCP	PPDS-755D-MTCP
<b>CPU</b>				
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			
<b>Communication Interface</b>				
Non-isolated	COM1	RS-232 (Tx/D, Rx/D, RTS, CTS, GND)		
	COM2	RS-485 (D2+, D2-, GND)		
	COM3	RS-485 (DATA+, DATA-, GND)		
	COM4	RS-485 (DATA+, DATA-, GND)		
	COM5	RS-485 (DATA+, DATA-, GND)		
Ethernet	10/100 Base-TX, RJ-45 port (Auto-negotiating, auto MDI/MDI-X, LED indicator)			
PoE	-	IEEE 802.3af		
<b>COM Port Formats</b>				
Data Bit	7, 8: for COM1 and COM2 5, 6, 7, 8: for COM3 – COM5			
Parity	None, Even, Odd, Mark, Space			
Stop Bit	1: for COM1 and COM2 1, 2: for COM3 – COM5			
Baud Rate	115200 bps max.			
<b>LED Indicators</b>				
5-digit 7 Segment	-	Yes	-	Yes
System	Red			
PoE	-	Green		
<b>Power</b>				
Protection	Power Reverse Polarity Protection			
Required Supply Voltage	+10 V <sub>DC</sub> ~ +30 V <sub>DC</sub> (non-regulated)		PoE or +12 V <sub>DC</sub> ~ +48 V <sub>DC</sub> (non-regulated)	
Power Consumption	2.0 W	2.7 W	2.2 W	2.9 W
<b>Mechanical</b>				
Flammability	Fire Retardant Materials (UL94-V0 Level)			
Dimensions	72 mm x 123 mm x 35 mm (W x H x D)			
Installation	DIN-Rail or Wall mounting			
<b>Environment</b>				
Operating Temperature	-25 °C ~ +75 °C			
Storage Temperature	-40 °C ~ +80 °C			
Humidity	5 ~ 90% RH, non-condensing			

**Pin Assignments**

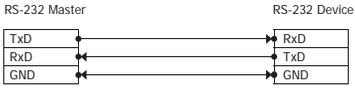
Terminal No.	Pin Assignment
E1	Link/Act 10/100M
COM1	01 CTS1 02 RTS1 03 RxD1 04 TxD1 05 INIT*
COM2	06 D2+ 07 D2- 08 (R)+Vs 09 (B)GND



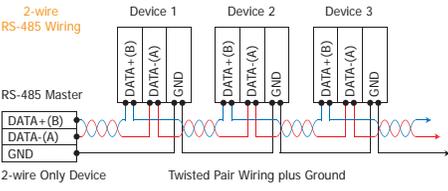
Terminal No.	Pin Assignment
COM5	23 DATA+ 22 DATA- 21 -- 20 -- 19 -- 18 --
COM4	17 DATA+ 16 DATA- 15 -- 14 -- 13 -- 12 --
COM3	11 DATA+ 10 DATA-

**Wiring**

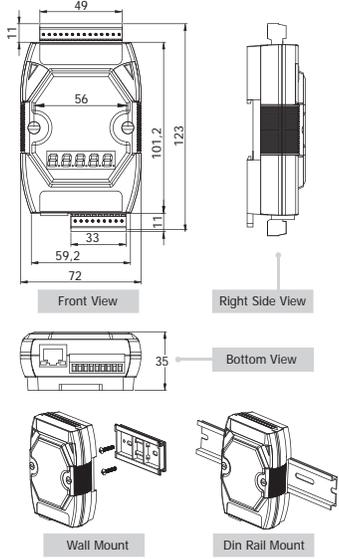
3-wire RS-232 Wiring



2-wire RS-485 Wiring



**Dimensions (Unit: mm)**



**Ordering Information**

PDS-755 CR	Programmable Device Server with 1 RS-232 port and 4 RS-485 ports (RoHS) Includes One CA-0910 Cable
PDS-755D CR	Programmable Device Server with 1 RS-232 port, 4 RS-485 ports and an LED Display (RoHS) Includes One CA-0910 Cable
PPDS-755-MTCTP CR	Programmable Device Server with PoE, Modbus/TCP, 1 RS-232 port and 4 RS-485 ports (RoHS) Includes One CA-0910 Cable
PPDS-755D-MTCTP CR	Programmable Device Server with PoE, Modbus/TCP, 1 RS-232 port, 4 RS-485 ports and an LED Display (RoHS) Includes One CA-0910 Cable

**Accessories**

GPSU06U-6	24 V <sub>DC</sub> /0.25 A, 6 W Power Supply
MDR-20-24	24 V <sub>DC</sub> /1 A, 24 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48 V <sub>DC</sub> /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-205PCE CR	Unmanaged Ethernet Switch with 4 PoE Ports and 1 RJ-45 Uplink (RoHS)