NEW PDS-755(D)
PPDS-755(D)-MTCP

Programmable Device Server with 1 RS-232 port and 4 RS-485 ports

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)

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-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.
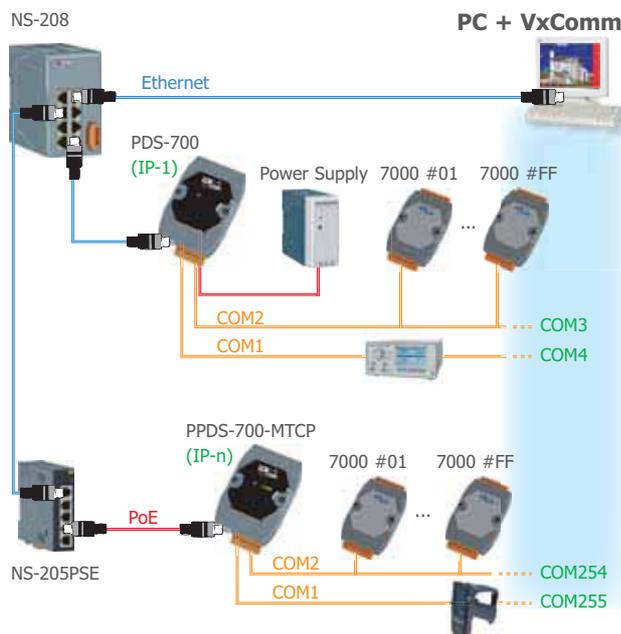

📝 Applications

Factory, Building and Home Automation

📝 System Specifications

Models		PDS-755	PDS-755D	PPDS-755-MTCP	PPDS-755D-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-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	
COM Port Formats					
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.			
LED Indicators					
5-digit 7 Segment		-	Yes	-	Yes
System		Red			
PoE		-		Green	
Power					
Protection		Power Reverse Polarity Protection			
Required Supply Voltage		+10 V_{DC} ~ +30 V_{DC} (non-regulated)		PoE or +12 V_{DC} ~ +48 V_{DC} (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 123 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			

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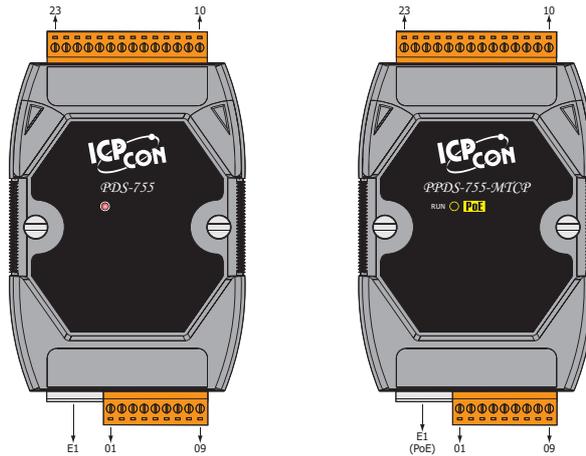
Terminal No.		Pin Assignment
COM5	23	DATA+
	22	DATA-
	21	--
	20	--
	19	--
	18	--
COM4	17	DATA+
	16	DATA-
	15	--
	14	--
	13	--
	12	--
COM3	11	DATA+
	10	DATA-

ICPCON PDS-755

ICPCON PPDS-755-MTCP
RUN ○ PoE

◪ Wiring

3-wire RS-232 Wiring

RS-232 Master | | RS-232 Device
TxD	→	RxD
RxD	←	TxD
GND	↔	GND

2-wire RS-485 Wiring

Device 1: DATA+(B) DATA-(A) GND
Device 2: DATA+(B) DATA-(A) GND
Device 3: DATA+(B) DATA-(A) GND

RS-485 Master
DATA+(B)
DATA-(A)
GND

2-wire Only Device   Twisted Pair Wiring plus Ground

◪ Dimensions (Unit: mm)

49
11
56
101,2
123
11
33
59,2
72

Front View

Right Side View

35 Bottom View

Wall Mount

Din Rail Mount
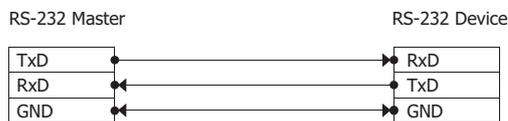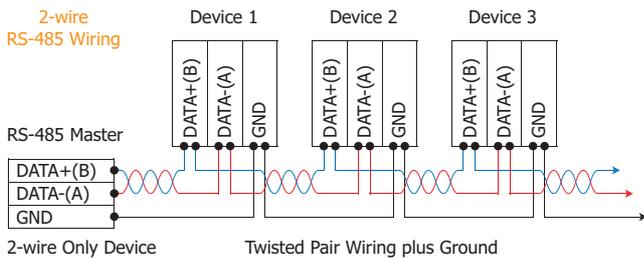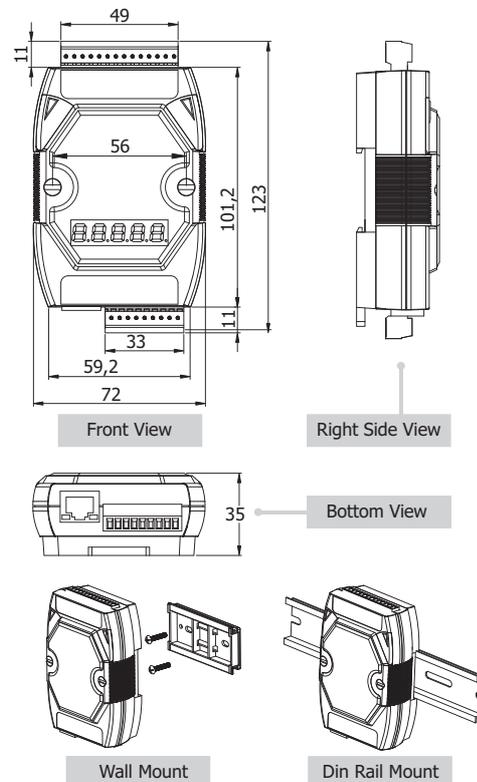
◪ Ordering Information

Art. No. 119374	PDS-755 CR	Programmable Device Server with 1 RS-232 port and 4 RS-485 ports (RoHS) Includes One CA-0910 Cable
Art. No. 119375	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
Art. No. 123217	PPDS-755-MTCP CR	Programmable Device Server with PoE, Modbus/TCP, 1 RS-232 port and 4 RS-485 ports (RoHS) Includes One CA-0910 Cable
Art. No. 123255	PPDS-755D-MTCP 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$_{DC}$/0.25 A, 6 W Power Supply
MDR-20-24	24 V$_{DC}$/1 A, 24 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48 V$_{DC}$/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)