



Introduction _

The DS-700 is a series of Serial-to-Ethernet Device Servers that are designed for linking RS-232/422/485 devices to an Ethernet network. By using the VxComm Driver/Utility, the built-in COM port of the DS-700 series can be virtualized to a standard PC COM port in Windows. By virtue of its protocol independence, a small size and flexibility, the DS-700 series meets the demands of virtually any network-enabled application.

The DS-712 is equipped with a male DB-9 connector and supports a 5-wire RS-232 port, while the DS-715 is equipped with a removable terminal block connector and supports a 4-wire RS-422 port or a 2-wire RS-485 port with 2000 $V_{\rm min}$ isolation.

The DS-700 is a non-programmable device server, while the PPDS-700-MTCP is a programmable product. 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.



Applications.

Factory, Building and Home Automation

RS-422/485

Features

- Incorporate Serial Devices in an Ethernet network
- "Virtual COM" extends PC COM ports
- Virtual COM on Windows NT 4.0, 2000/XP/2003 and
- High Performance 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
- RoHS Compliant with no Halogen
- Built-in High Performance MiniOS7 from ICP DAS
- 10/100 Base-TX, RJ-45 Port (Auto-negotiating, auto MDI/MDI-X, LED indicator)
- PPDS-715-MTCP supports Modbus/TCP and Modbus/RTU
- PPDS-715-MTCP supports PoE (IEEE 802.3af, Class 1)

PoE

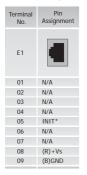
- Low power consumption
- Palm-Size with DIN-Rail Mounting
- Made from fire retardant materials (UL94-V0 Level)



System Specifications

		DS-715	PPDS-715-MTCP		
CPU					
CPU		80186, 80 MHz or comp	oatible		
SRAM		512 KB			
Flash Memo	ry	Flash ROM: 512 KB			
EEPROM		16 KB; Data retention: 40 years			
Built-in Watchdog Timer		Yes			
Communication	n Interfa	ice			
Isolated (2000 Vrms)	COM1	RS-422 (TxD+, TxD-, RxD+, RxD-) RS-485 (D2+,D2-)			
Ethernet		10/100 Base-TX, RJ-45 port (Auto-negotiating, auto MDI/MDI-X, LED indicator)			
PoE		-	IEEE 802.3af		
COM Port Forr	mats				
Data Bit		7, 8: for COM1			
Parity		None, Even, Odd, Mark, Space			
Stop Bit		1: for COM1			
Baud Rate		115200 bps max.			
LED Indicators	5				
L1		Run (Red)			
L2		Link/Act (Red)			
L3		10/100M (Orange)			
PoE		-	Green		
Power					
Protection		Power Reverse Polarity Protection			
Required Supply Voltage		+12 Vpc ~ +48 Vpc (non-regulated)	PoE or +12 Voc ~ +48 Voc (non-regulated)		
Power Cons	umption	2.0 W	2.2 W		
Mechanical					
Flammabilit	У	Fire Retardant Materials (UL94-V0 Level)			
Dimensions		72 mm x 124 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



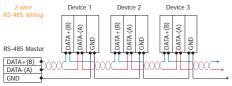




COM1	(RS-422/485)
	F.G.
	Tx+/D+
	Tx-/D-
	Rx+
	Rx-

RS-422 Device

Wiring

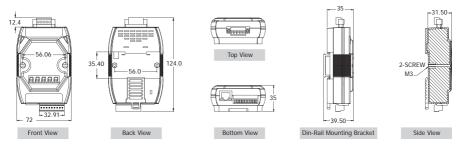


2-wire Only Device Twisted Pair Wiring plus Ground

4-wire RS-422 Wiring RS-422 Master

TxD+(B)		RxD+(B)
TxD-(A)	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	RxD-(A)
RxD+(B)		TxD+(B)
RxD-(A)		TxD-(A)
GND •	-	GND

■ Dimensions (Unit: mm) -



Ordering Information

DS-715 CR	Device Server with 1 Isolated RS-422/RS-485 port (RoHS)
PPDS-715-MTCP CR	Programmable Device Server with PoE, Modbus/TCP and 1 Isolated RS-422/485 port (RoHS)

Accessories _

GPSU06U-6	24 Vpc/0.25 A, 6 W Power Supply	
MDR-20-24	24 Voz/1 A, 24 W Power Supply with DIN-Rail Mounting	
DIN-KA52F-48	48 Voc/0.52 A, 25 W Power Supply with Din-Rail Mounting	
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)	