NEW DS-715

Available soon PPDS-715-MTCP

Serial-to-Ethernet Device Server with 1 RS-422/RS-485 port

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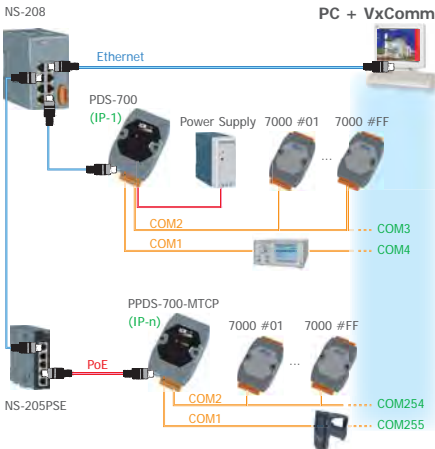- Made from fire retardant materials (UL94-V0 Level)

CE FC RoHS PoE

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$_{rms}$ 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.
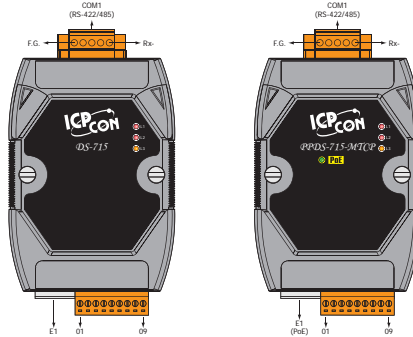

System Specifications

Models	DS-715	PPDS-715-MTCP
CPU		
CPU	80186, 80 MHz or compatible	
SRAM	512 KB	
Flash Memory	Flash ROM: 512 KB	
EEPROM	16 KB; Data retention: 40 years	
Built-in Watchdog Timer	Yes	
Communication Interface		
Isolated (2000 V$_{rms}$) 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 Formats		
Data Bit	7, 8: for COM1	
Parity	None, Even, Odd, Mark, Space	
Stop Bit	1: for COM1	
Baud Rate	115200 bps max.	
LED Indicators		
L1	Run (Red)	
L2	Link/Act (Red)	
L3	10/100M (Orange)	
PoE	-	Green
Power		
Protection	Power Reverse Polarity Protection	
Required Supply Voltage	+12 V$_{DC}$ ~ +48 V$_{DC}$ (non-regulated)	PoE or +12 V$_{DC}$ ~ +48 V$_{DC}$ (non-regulated)
Power Consumption	2.0 W	2.2 W
Mechanical		
Flammability	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	

Applications

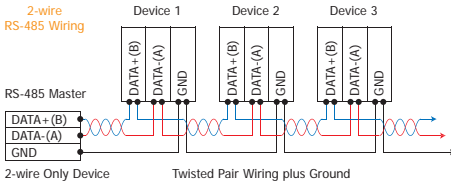Factory, Building and Home Automation

Pin Assignments

Terminal No.	Pin Assignment
E1	
01	N/A
02	N/A
03	N/A
04	N/A
05	INIT*
06	N/A
07	N/A
08	(R)+Vs
09	(B)GND

COM1 (RS-422/485)

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

DS-715

PPDS-715-MTCP

Wiring

2-wire RS-485 Wiring

Device 1   Device 2   Device 3

RS-485 Master

DATA+(B)
DATA-(A)
GND

DATA+(B)
DATA-(A)
GND

2-wire Only Device   Twisted Pair Wiring plus Ground

4-wire RS-422 Wiring

RS-422 Master   RS-422 Device

TxD+(B)		RxD+(B)
TxD-(A)		RxD-(A)
RxD+(B)		TxD+(B)
RxD-(A)		TxD-(A)
GND		GND

Dimensions (Unit: mm)

12.4
56.06
72
32.91

Front View

35.40
56.0
124.0

Back View

Top View

Bottom View

35

39.50

Din-Rail Mounting Bracket

31.50

2-SCREW M3

Side View
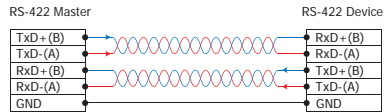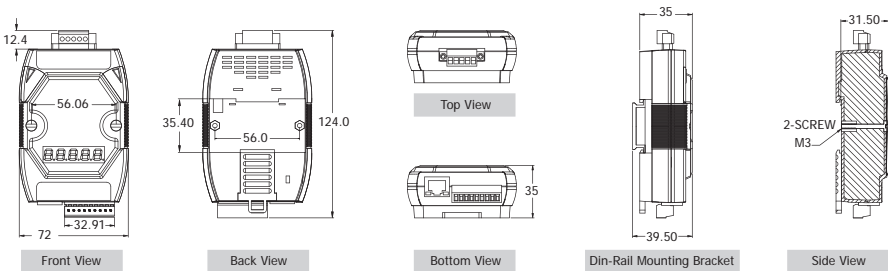
Ordering Information

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 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
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)