



DNP-211

DNP3 Master to Modbus TCP Server Gateway

Features

- Read/Write DNP3 Outstation via Modbus TCP
- Support TCP, UDP and Serial for DNP3 side
- Support Data Group 1, 10, 12, 20, 30, 40, 41
- Support 8192 bits for Digital I/O and 2048 channels for Counter and Analog I/O
- Support Modbus function code 1, 2, 3, 4, 15, 16
- Provide DNP3 Outstation connection status on Modbus address
- Maximum support 32 DNP3 Outstations
- Maximum support 16 Modbus Client connection



Introduction

Distributed Network Protocol 3 (DNP3) is a set of communications protocols used between components in process automation systems. Its main use is in utilities such as electric and water companies. It was developed for communications between various types of data acquisition and control equipment. It plays a crucial role in SCADA systems. It is primarily used for communications between a master station and Remote Terminal Units (RTUs) or Intelligent Electronic Devices (IEDs).

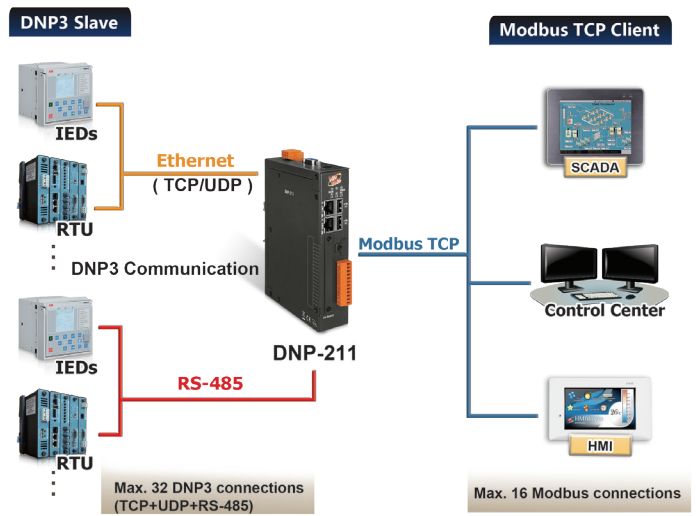
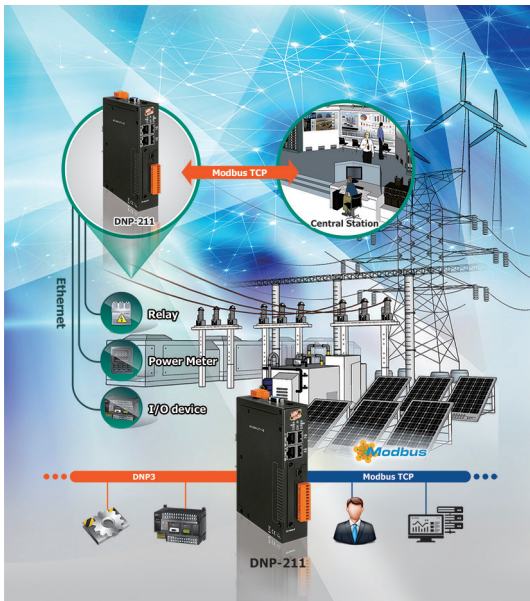
DNP-211 is a solution that provides a communication transformation between DNP3 and Modbus TCP protocol. It can connect an existed DNP3 network with Ethernet-base master device as long as this master device supports Modbus TCP protocol. For DNP3 network, the DNP-211 is a DNP3 master device. It supports several commonly data group and variation communicate with slave devices. From the view of Modbus TCP network, DNP-211 plays a Modbus TCP server role. It can receive the commands from Modbus TCP client and process the commands to reply or send the related DNP3 data. All the DNP3 I/O data and Modbus address mapping can be configured via DNP-211 utility.

Specifications

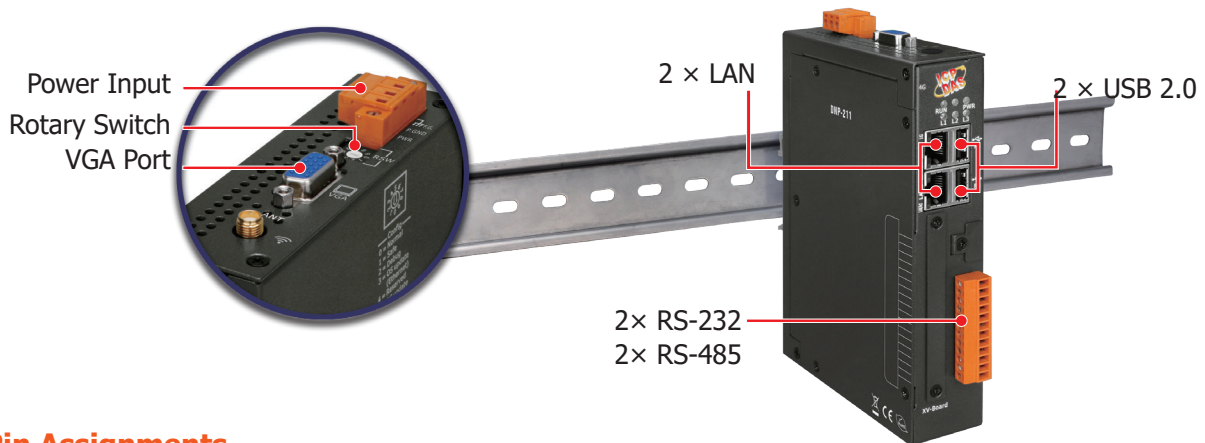
System		
CPU	Cotrex-A8, 1 GHz	
SDRAM	512 MB	
Flash	512 MB	
FRAM	64 KB	
LED Indications	PWR (Power), RUN (Running), L1, L2, L3	
Communication Ports		
VGA	1 (reserved)	
Ethernet	RJ-45 x 2 · 10/100/1000 Based-Tx (Auto-negotiation, Auto MDI/MDI-X, LED indicators)	
USB 2.0	2 (reserved)	
Console Port	RS-232 (Rx/D, Tx/D and GND); Non-isolated	
tty02	RS-485 (reserved) (Data+, Data-); Non-isolated	
tty04	RS-232 (reserved) (Rx/D, Tx/D and GND); Non-isolated	
tty05	RS-485 (reserved) (Data+, Data-); 2500 VDC isolated	
Protocol		
Modbus	Identify	Modbus TCP server
	Function	1, 2, 3, 4, 15, 16
	Connection	Max. 16 Modbus TCP clients

DNP3	Identify	DNP3 Master
	Group	1, 10, 12, 20, 30, 40, 41
	Connection	Max. 32 DNP3 Outstations
	Data Points (channel)	DI: 8192 DO: 8192 Count: 2048 AI: 2048 AO: 2048
Power		
Supply Voltage	+12 to +48 VDC	
Consumption	4.8 W	
Connector	3pin Removable Terminal Block	
Mechanism		
Dimensions (W x L x H)	35 mm x 167 mm x 119 mm	
Casing	Metal	
Installation	DIN-Rail	
Environment		
Operating Temp.	-25°C ~ +75°C	
Storage Temp.	-30°C ~ +85°C	
Humidity	10 ~ 90% RH, non-condensing	

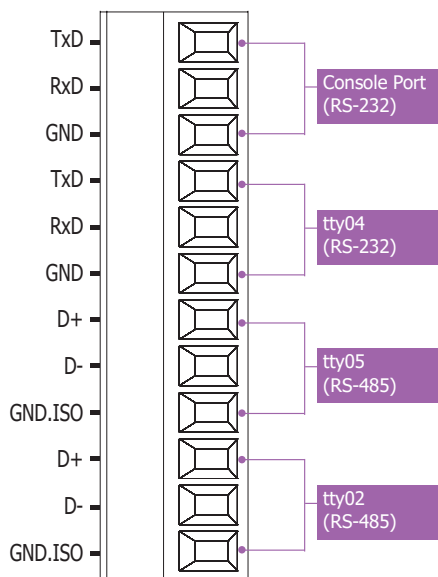
Applications



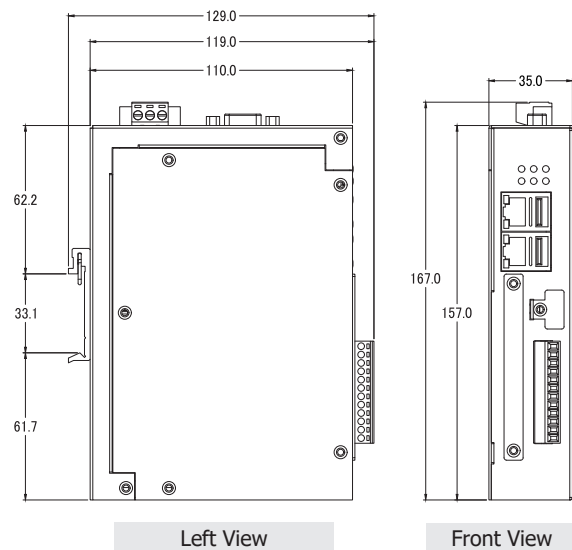
Appearance



Pin Assignments



Dimensions (Units: mm)



Ordering Information

DNP-211	DNP3 Master to Modbus TCP Server Gateway (RoHs)
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