



## DNP-211-S

DNP3 Slave to Modbus TCP Client Gateway

### Features

- Integrate Modbus TCP slaves and convert to a DNP3 slave
- DNP3 supports connections via RS-485, TCP/IP, and UDP
- Configurable mapping data points
- DNP3 supports Binary, Binary Output, Analog, and Analog Output data
- Analog and Analog Output data support word, int32, float, and double formats
- Modbus TCP supports function code 1, 2, 3, 4, 5, 6, 15, 16
- DNP3 data provides the Modbus TCP connection status
- Supports up to 32 Modbus TCP slaves

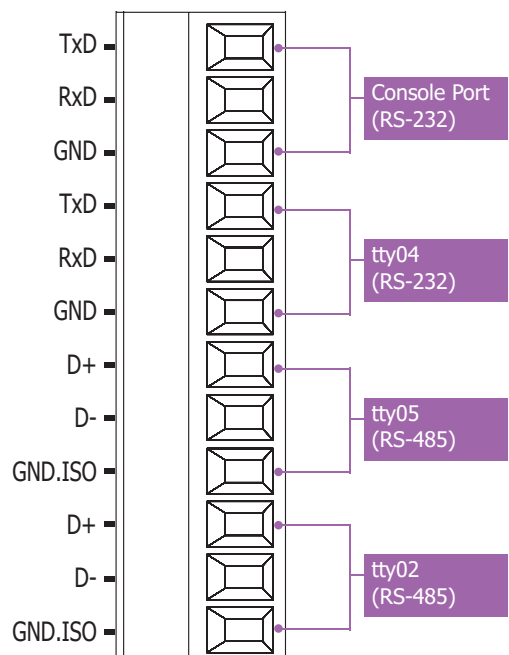


### Introduction

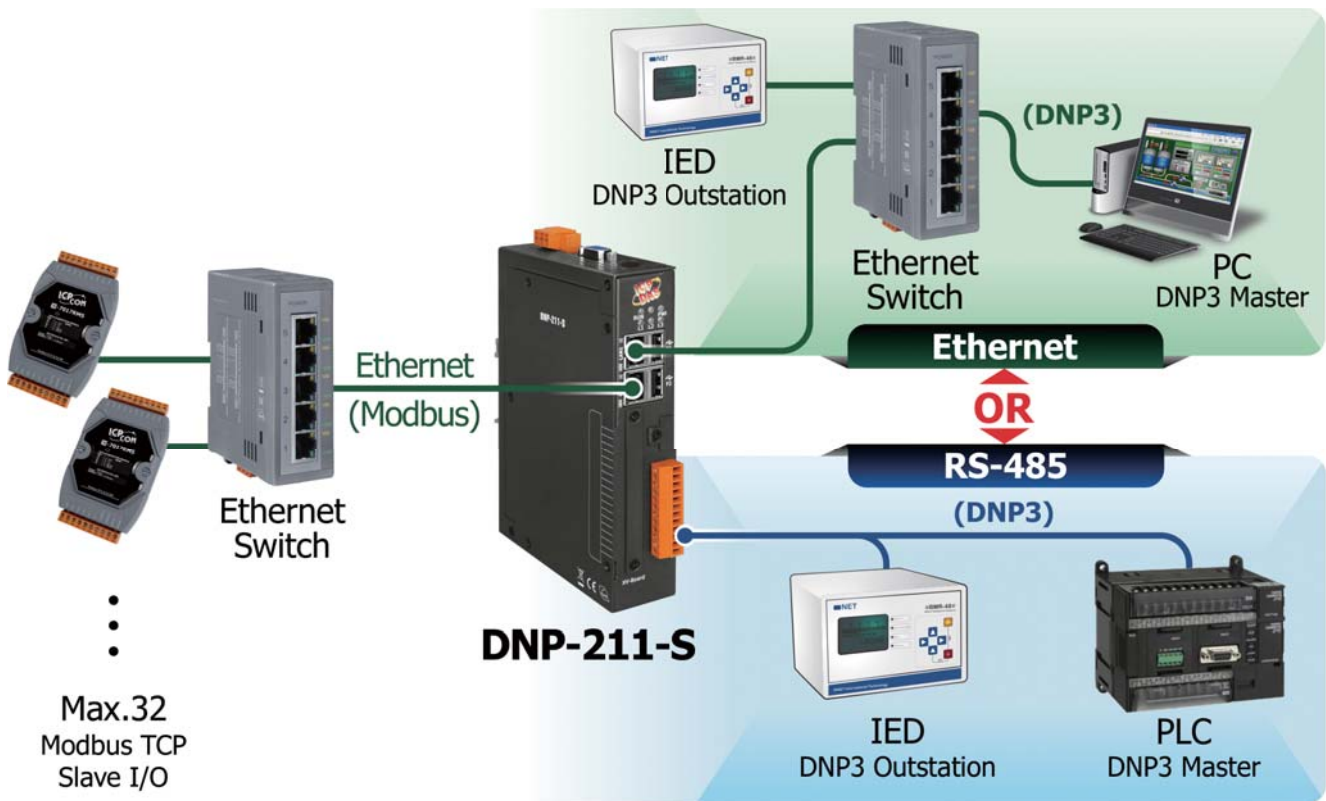
Distributed Network Protocol 3 (DNP3) is a set of communications protocols used between components in process automation systems. Its main use is in utilities such as electric and water companies. It was developed for communications between various types of data acquisition and control equipment. It 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).

The DNP-211-S is a gateway device that supports the conversion between DNP3 Outstation and Modbus TCP Master protocols. It integrates multiple Modbus TCP I/O devices into a single DNP3 I/O device, allowing the DNP3 master station in the system to control the underlying Modbus TCP I/O devices through the DNP-211-S. On the Modbus side, the DNP-211-S supports common function codes such as 1, 2, 3, 4, 5, 6, 15, and 16. On the DNP3 side, it provides corresponding data groups such as 1, 10, 11, 30, 40, and 41. All Modbus TCP I/O data and DNP3 address mappings can be configured through the DNP-211-S utility software.

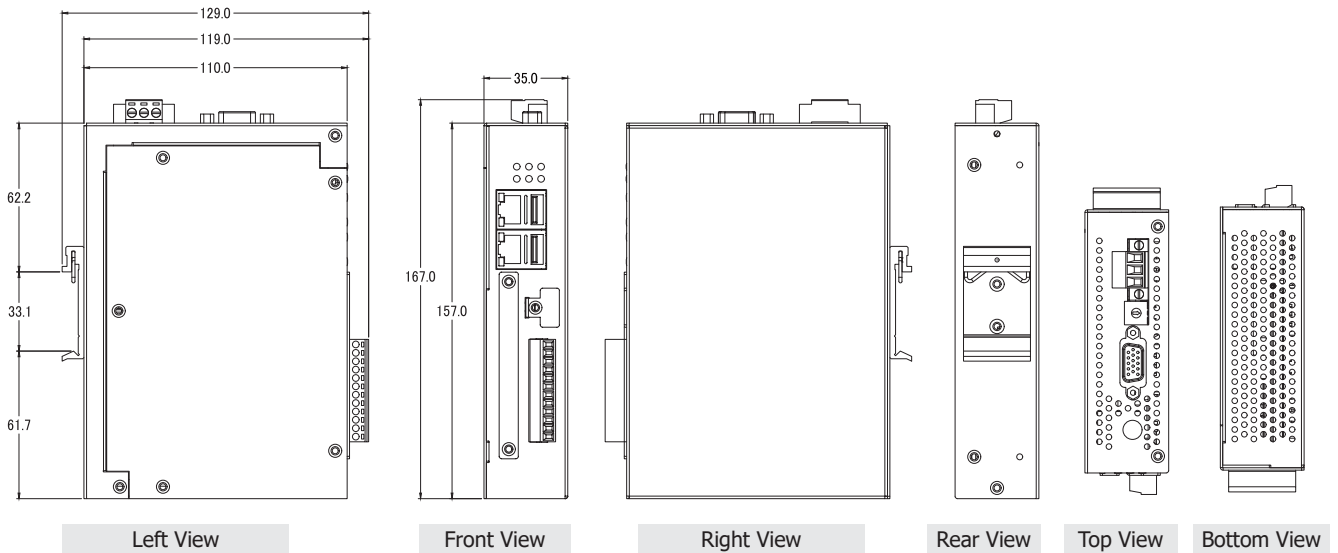
### Pin Assignments



## Applications



## Dimensions (Units: mm)



## Specifications

System		
CPU	Cortex-A8, 1 GHz	
SDRAM	512 MB	
Flash	512 MB	
FRAM	64 KB	
LED Indicators	PWR (Power) · RUN (System Run) · L1 (Firmware Run) L2 (Modbus TCP connection) · L3 (DNP3 connection)	
Communication Ports		
VGA	1 (reserved)	
Ethernet	RJ-45 x 2, 10/100/1000 Based-TX (auto-negotiating, Auto MDI/MDI-X, LED indicators)	
USB 2.0	2 (reserved)	
Console Port	RS-232 (RxD, TxD and GND); Non-isolated	
ttyO2	RS-485 (Data+, Data-); Non-isolated	
ttyO4	RS-232 (RxD, TxD and GND); Non-isolated	
ttyO5	RS-485 (Data+, Data-); 2500 VDC isolated	
Protocol		
Modbus	Identity	Modbus TCP client
	Function	1, 2, 3, 4, 5, 6, 15, 16
	Connection	Max. 32 Modbus TCP servers
DNP3	Identity	DNP3 slave
	Connection	Support RS-485 / Ethernet
	Group	1, 10, 11, 30, 40, 41
	Data Point	DI: 8192 DO: 8192 AI: 2048 AO: 2048
Power		
Supply Voltage	+12 to +48 VDC	
Consumption	4.8 W	
Connector	3-pin removable terminal block	
Mechanism		
Dimensions	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	

## Ordering Information

<b>DNP-211-S CR</b>	DNP3 Slave to Modbus TCP Client Gateway (RoHS)
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