NetPortServer Compact RS232/422/485 Device Server with Modbus and MQTT Support

NPS5151

Compact One-Port RS232/422/485 Serial Device Server

The NPS5151 is a compact RS232/422/485 device server and IoT gateway specifically designed for industrial environments. It integrates multiple functions, including serial device server, Modbus gateway, MQTT gateway, RS485-to-JSON gateway, and virtual COM port device tool. The device features one RS232 DB9, one RS422/485 terminal connector and one RJ45 Ethernet port, offering reliable connectivity. Its compact design supports desktop and Din-rail installation, ensuring ease of deployment, while the terminal power supply allows for a wide power voltage input range of 10~30VDC. The NPS5151 presents a cost-effective and space-efficient solution compared to standard products.

-25~70°C Windows 10 Windows 11 Modbus MQTT

Features & Benefits

Modbus RTU /Ethernet Gateway

- Integrated Serial Port Server (Serial Device Server)
- Modbus RTU Server/ Client
- Modbus RTU to MQTT Gateway
- Cloud JSON data to Modbus RTU
- TCP Server/ Client, UDP, UDP Multicast
- TCP Server
- Auto-Polling Storage Multi Modbus/TCP Client to Single Modbus RTU Server
- Cloud Modbus/TCP to Modbus RTU Client Access

Modbus Gateway

- Modbus RTU protocol to Modbus/TCP
- RTU/Register Auto Polling and Storage
- Allows Multiple points access same serial device
- Scheduling Polling Modbus RTU register

JSON to Modbus RTU

- CSV JSON Table
- Scheduling Polling Modbus RTU register
- Scheduling Publish in JSON format
- Subscribe support request and Setting Modbus Register

Modbus RTU to MQTT

- Publish RTU data in JSON format
- Subscribe JSON to Modbus RTU by HTTP Post, HTTP Get
- NTP support for Network Time Synchronize

Serial Device Server

- TCP/UDP Transmission to virtual serial port
- Support Virtual COM Software tool

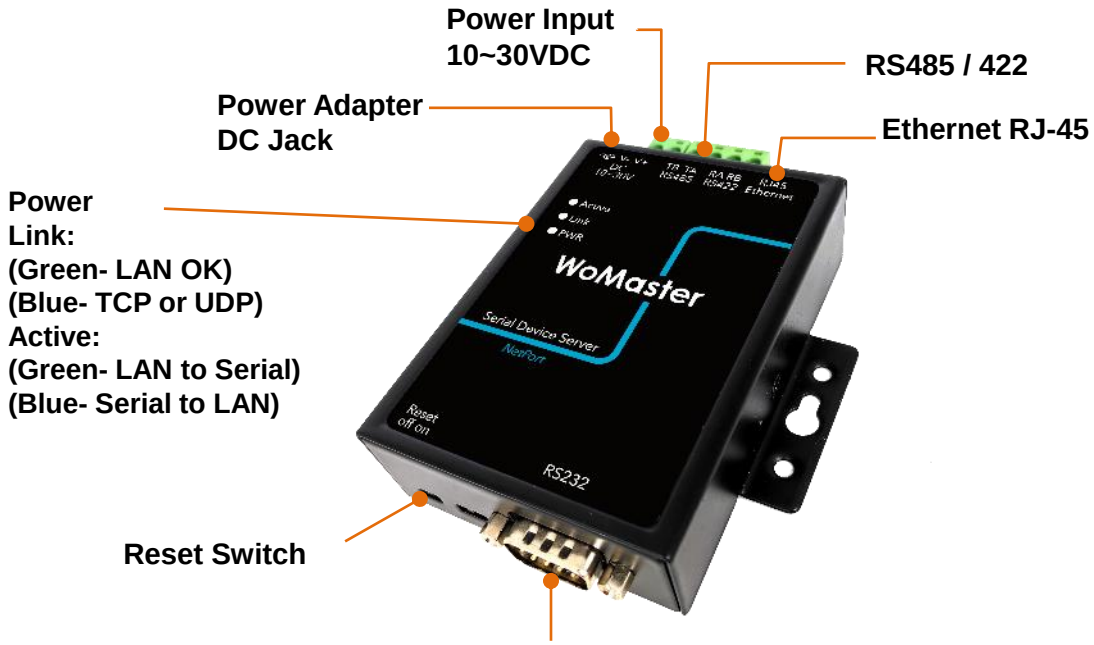
Serial Interface

- One RS232 DB9 Male, One RS422/485 Terminal Connector
- Baud Rate – 1200bps ~115200bps, 5~9 data bit
- Parity Check – None, Odd, Even, Mark, Space

Industrial Application

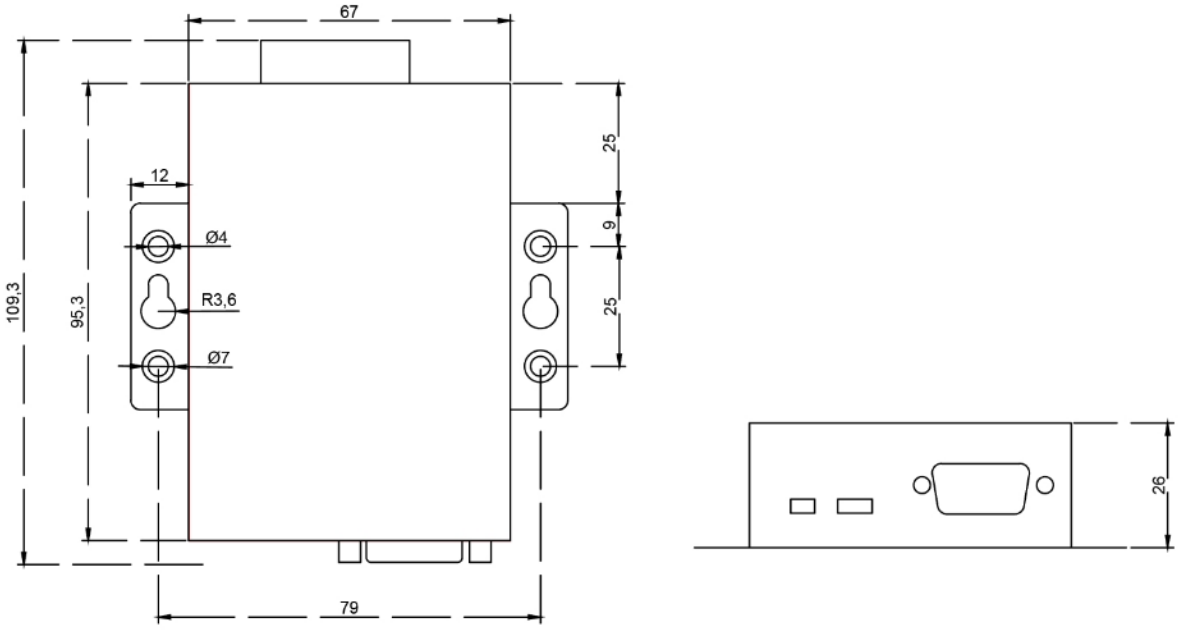
- DC 10~30V Power Input, Terminal Connector
- -25~70˚C / 5~95% RH Environment Operating Temperature

Interfaces

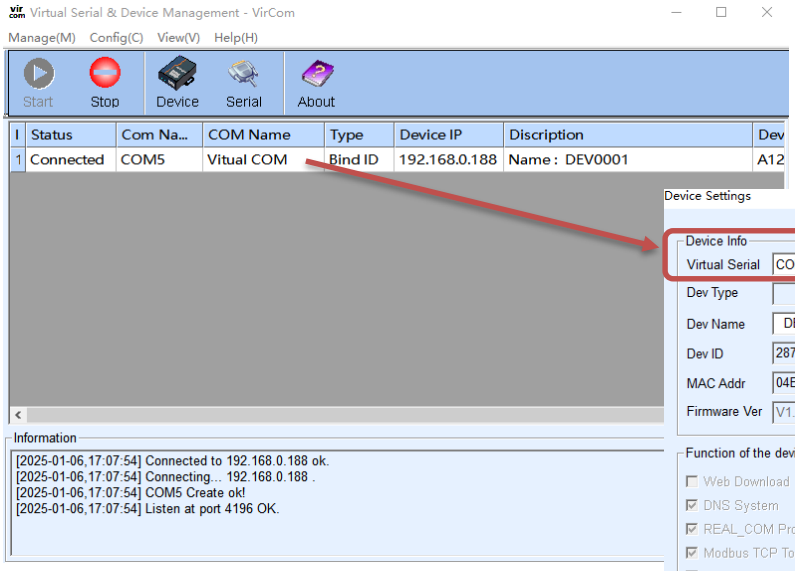


RS232 DB9 Male

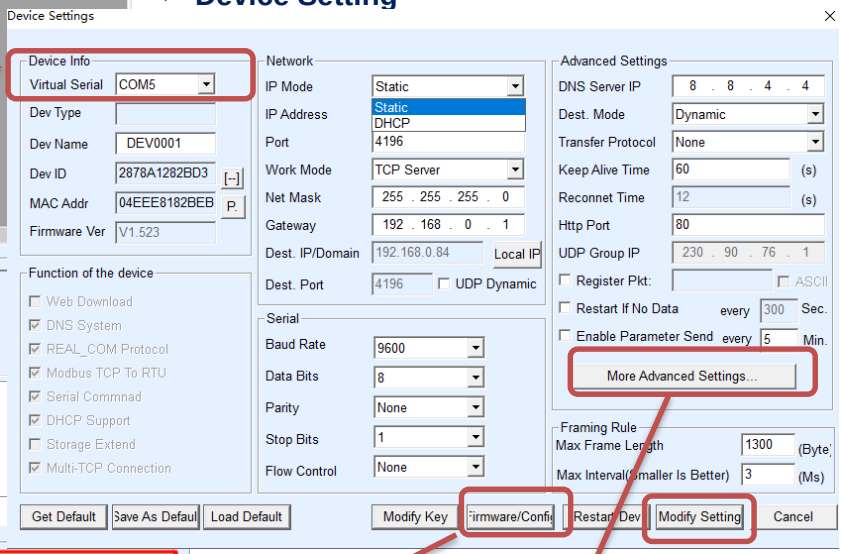
Dimensions



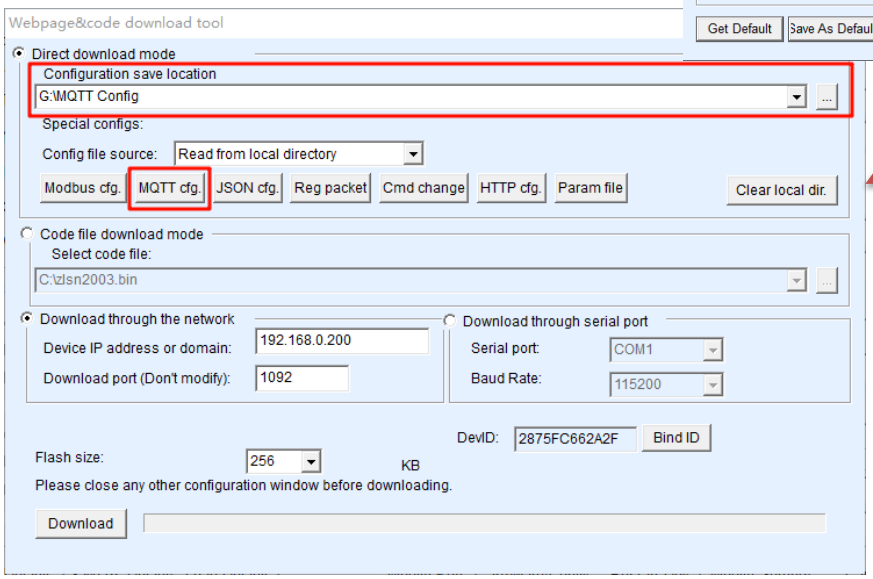
✓ Virtual COM Device Discovery and Management



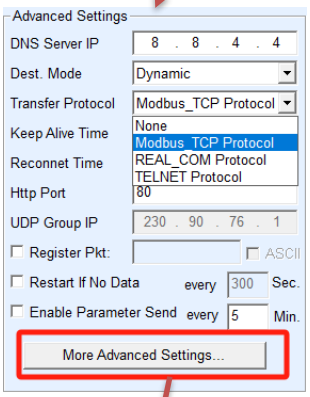
✓ Device Setting



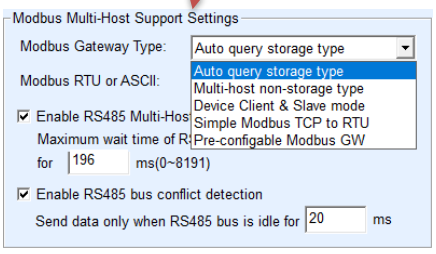
✓ Cloud MQTT Configuration



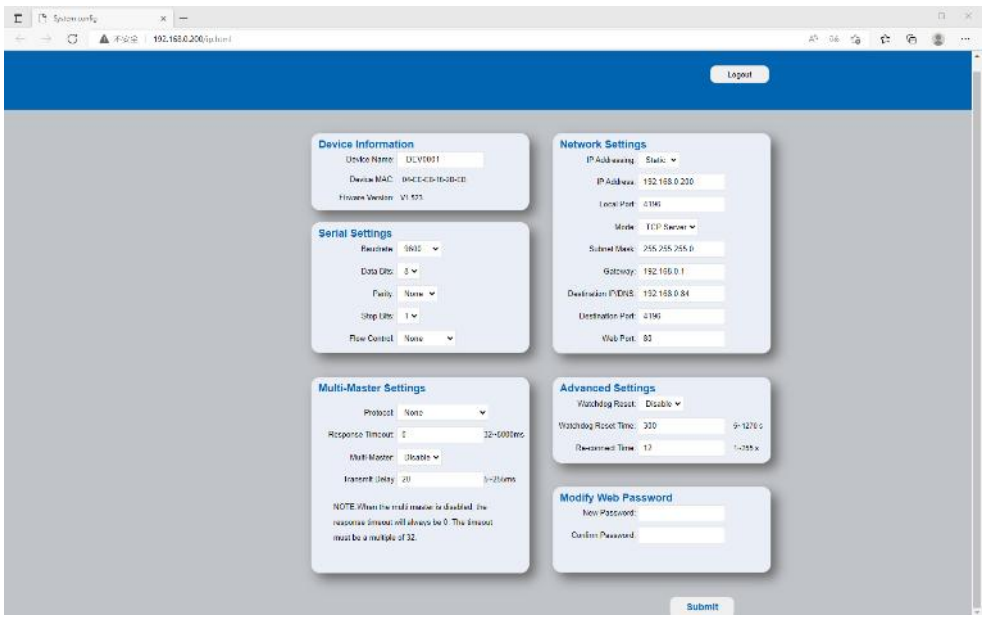
Save Setting



Multi Modbus Host



✓ Web Configuration



Specifications

Network Interface	
Ethernet	One 10/100M Ethernet RJ45 2KV Surge Protection
Serial Interface	
Connector	One RS232 DB9 Male, One RS422/485 Terminal Block
Serial Parameters	Baud Rate: 1200~115200bps, Data Bit: 5~9 Parity Check: None, Odd, Even, Space, Mark Flow Control: None Flow Control
Service Mode	
Virtual COM Driver	Windows XP / Windows 7 / Windows 10/ Windows 11
TCP	TCP Server for up to 30 TCP clients, or TCP client to up to 7 destination IP
UDP / UDP Multicasting	UDP Polling & Response by UDP packet between stations UDP Multicast to all station by UDP packet
Modbus	Modbus RTU to Modbus TCP Modbus TCP to Modbus RTU
Cloud	MQTT, JSON to Modbus RTU, HTTP Post, HPPT Get
Network Feature	
Protocol	Ethernet, IP, TCP, UDP, HTTP, ARP, ICMP, DHCP, DNS, Modbus
Security	TCP with authentication key
DHCP	DHCP Client for IP and DNS information from DHCP server
NTP	Network Time Precision (NTP)
Management	
System Management	Windows Utility, Virtual COM, WEB Management
Windows DLL Library	Device management function library (Windows DLL dynamic link library) by VC, VB, Delphi, or C++ Builder with functions such as *read* and *write*.
Power Input & Interface Connector	
Power Input	10~30VDC Input, Terminal Block, DC Jack
Mechanical & Installation	
Installation	Din-Rail, Desktop
Enclosure	Metal
IP Protection	IP20
Dimension	94x65x25mm (LxWxH), Packing Box160x123x79mm, 52pcs per Carton
Environmental	
Operation Temperature	-25°C~70°C, 0% ~ 90%, Non-Condensing
Storage Temperature	-40°C~80°C, 0% ~ 90%, Non-Condensing
Reliability & Warranty	
MTBF	> 200,000 Hours
Warranty	3 Year

Ordering Information

Model	Description
NPS5151E/U/UK	Compact One-port RS232/422/485 Device Server, Modbus, MQTT Gateway, 10~30Vdc - Quick Installation Guide - DB9 cable - Power Adapter (EU/US/UK) - Din-rail Kit - 1m RJ45 cable