NP314T & NP318T Series

Desktop/Wall Mounting
4/8 3IN1 or RS-485 Serial Server

- Support 4/8 3IN1 or RS-485 serial ports to 2 10/100Base-T(X) self-adaptive Ethernet interfaces

- Support network modes such as redundant mode, switching mode and dual IP mode to meet the needs of various network environments

- Support multiple operating modes like RealCom, TCP Server, TCP Client, UDP Server, UDP Client, UDP Rang and UDP Multicast

- Support 12~48VDC wide voltage input

- Support -40~75℃ wide operating temperature range

CE   FC   RoHS   Industrial Grade   IP40

Introduction

NP314T, NP318T series are the serial device servers that can make serial device be equipped with networking capability instantly and centrally manage the scattered serial devices and hosts via network. This series provide 4 products and support a variety of interfaces including 100M copper ports, 3IN1 serial ports and RS-485 serial ports. They adopt desktop/wall mounting to meet the requirements of different application scenes.

Serial server supports multiple network protocols, such as TCP, UDP, TELNET, ARP, ICMP, HTTP, HTTPS, SNMP, SSH, SMTP, SNTP, DNS, BOOTP and DHCP protocol. It also possesses complete management functions, including Access Control, Rapid Configuration, Online Upgrading and so on. Each serial port supports 4 TCP or UDP session connections, and it also supports RealCom, TCP Server, TCP Client, UDP Server, UDP Client, UDP Rang, UDP Multicast operating modes and TELNET, WEB, SSHD access modes. Furthermore, supplied management configuration tool based on Windows platform can guide the user to manage and configure the device, achieving immediate networking of serial device via simple settings. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

RESET button can achieve the restore factory defaults function. Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can adapt to the industrial scene environment with harsh requirements for EMC. It can be widely used in custom checkpoint system, smart gas station, data center and industrial automation, etc.
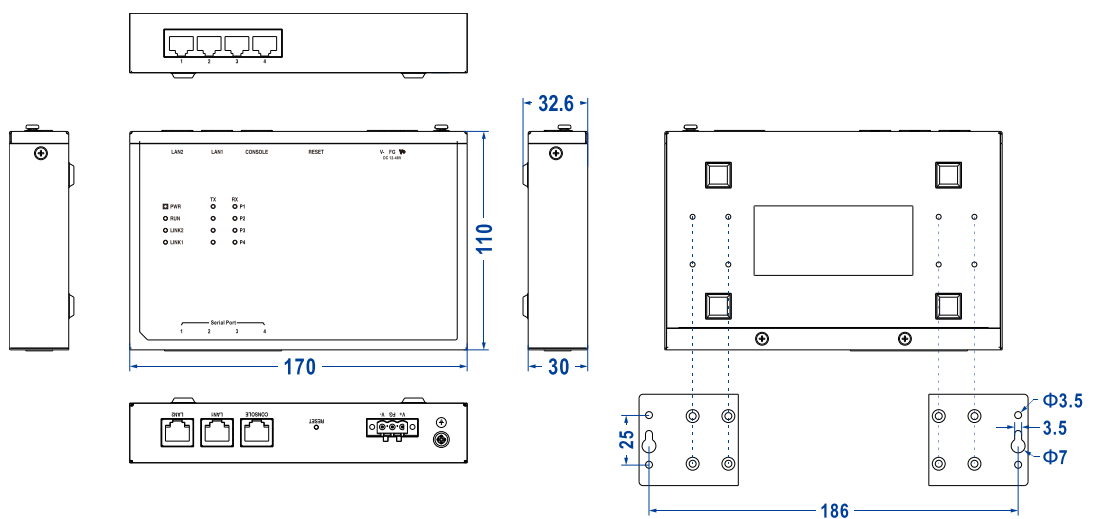
Features and Benefits

- Support 2 10/100Base-T(X) self-adaptive Ethernet interfaces and provide dual IP and dual MAC addresses to meet the requirements of multi-network management or network backups
- Support 110bps-115200bps (customizable 921600bps) line speed and non-blocking communication
- Support operating modes like RealCom, TCP Server, TCP Client, UDP Server, UDP Client, UDP Rang and UDP Multicast
- Support cross-gateway and cross-router communication
- Support multiple hosts polling mode, which allows multiple hosts to access the same serial port
- Support delimiter matching communication, achieving various demands for serial port packaging
- Support FIFO, compatible with various old type terminal devices
- Support IP address and MAC address filtering, which can achieve accurate access control easily
- Support graded user management to implement humanized authority management

- ⊙ Support serial port status, parameters and communication statistical monitoring, making the communication status easy to read
- ⊙ Support virtual serial port drive access mode and automatic connection recovery after network interruption
- ⊙ Flexible serial port data framing setting, which can satisfy user's various demands for data packets segmentation
- ⊙ Support standard TCP/IP SOCKET application access
- ⊙ TCP supports multi-connection, which allows maximum 4 users to monitor or manage the serial device simultaneously
- ⊙ UDP supports single machine or multi-machine communication, which allows multiple users to monitor or manage the serial device simultaneously
- ⊙ Support multiple configuration forms like Windows configuration tool, TELNET, SSHD and WEB
- ⊙ SSHD and HTTPS can guarantee the access security of data
- ⊙ Support multiple alarm methods, including e-mail alarm, log alarm and system alarm
- ⊙ Support multiple alarm events including warm start and cold start
- ⊙ Network diagnosis and troubleshooting could be conducted via Ping, Traceroute and packet capture diagnosis
- ⊙ Support ARP function, which can prevent the MAC address of the device being aged by the switch or router and unable to communicate
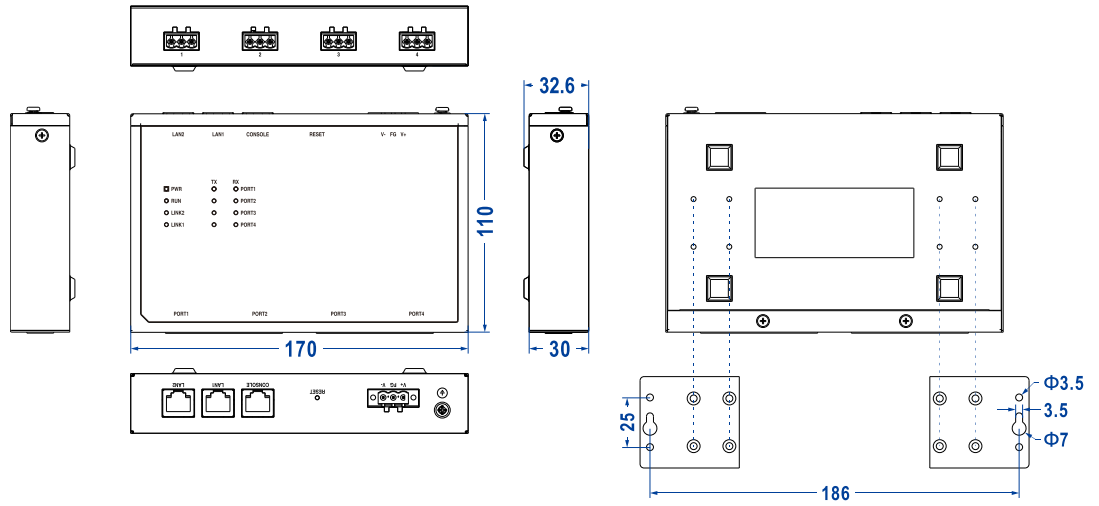- ⊙ Support static routing, routing table could be added manually
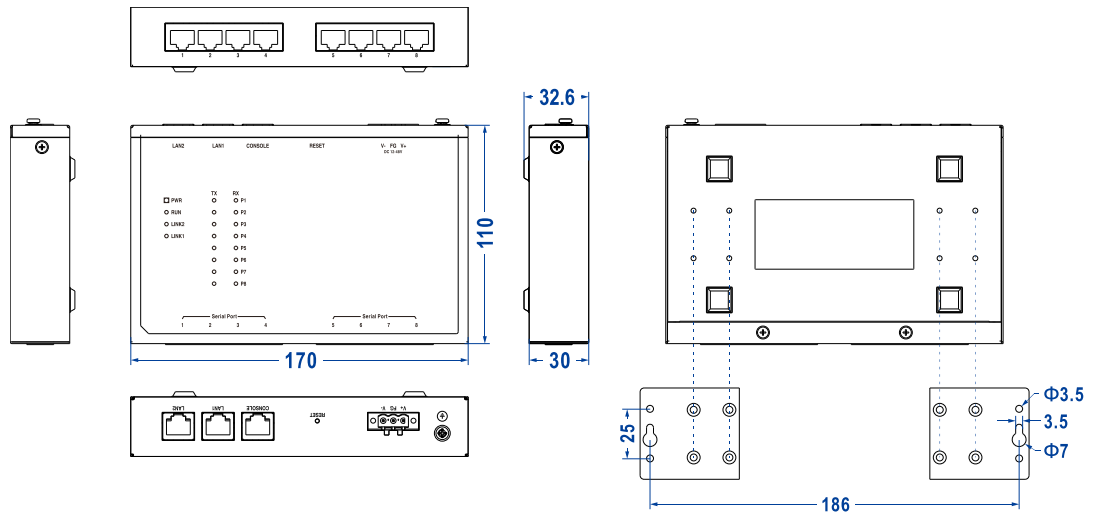
Dimension
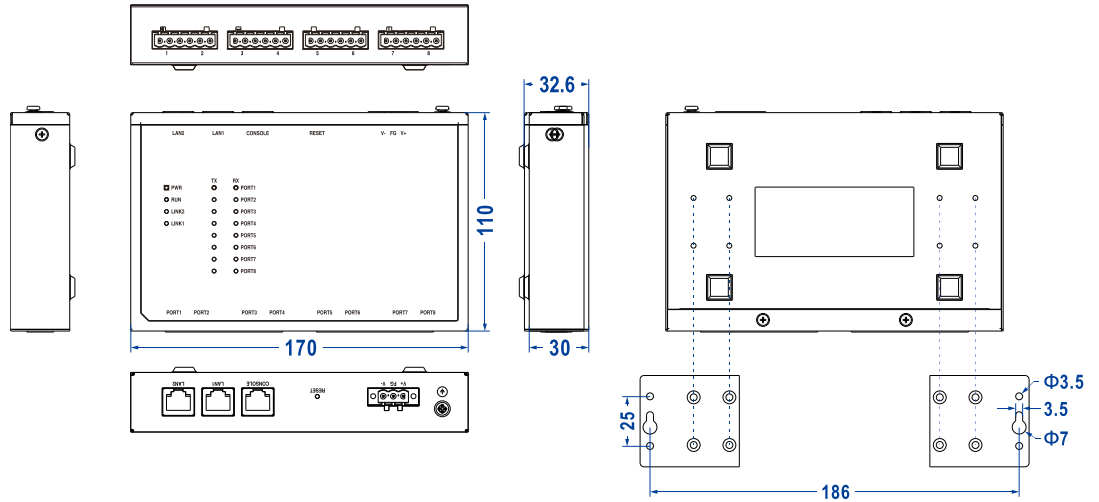
Unit: mm

- NP314T-4D(3IN1)-RJ-P(12-48VDC)

- NP314T-4DI(RS-485)-TB-P(12-48VDC)

● NP318T-8D(3IN1)-RJ-P(12-48VDC)

● NP318T-8DI(RS-485)-TB-P(12-48VDC)

Specification

Ethernet	Standard: 10Base-T, 100Base-TX Protocol: TCP, UDP, ARP, HTTP, HTTPS, TELNET, ICMP, SMTP, SNTP, DHCP, DNS Rate: 10/100M Automatic Flow Control, MDI/MDI-X Autotunning Interface form: RJ45 Interface quantity: 2 Duplex mode: Full/Half Duplex Mode Self-adaption Working mode: each serial port can establish up to 4 TCP/UDP session connections at the same time, and supports the working modes of RealCom, TCP Server, TCP Client, UDP Server, UDP Client, UDP Rang, UDP Multicast, etc.
Serial Port	Standard: EIA RS-232C, RS-485, RS-422 Quantity of serial port: 4/8 3IN1 or RS-485 3IN1 signal: DSR, RTS/T+, GND, TXD/T-, RXD/R+/D+, DCD/R-/D-, CTS, DTR RS-485 signal: D+, D-, GND Baud rate: 110bps~115200bps (customizable 110bps-921600bps) Data bit: 5bit, 6bit, 7bit, 8bit Parity bit: None, Even, Odd, Space, Mark Stop bit: 1bit, 1.5bit, 2bit Interface form: 3IN1 serial port adopt RJ45 interface; RS-485 serial port adopt 3 or 6-pin 5.08mm pitch terminal blocks Flow control: RTS/CTS, DTR/DSR, XON/XOFF Direction control: RS-485 direction adopts Automatic Data Direction Control (ADDC) Load capacity: RS-485 supports 32 points polling (customizable 256 points) Transmission distance: RS-232, 15m; RS-485/422, 1200m Pull up/down resistance for RS-485: 4.7kΩ Electromagnetic isolation strength: 2kVDC
Console port	CLI command line management port (RS-232), RJ45
Configuration Method	WEB configuration management, TELNET configuration, Windows configuration tool, SSHD configuration
Management	Free ARP, system log, SNMP, serial port status statistics, system network status
Routing/switching	Static routing, routing table, single IP mode (dual network port redundancy, switching mode), dual IP mode
Security	User right classification, IP address filtering, MAC address filtering,

	SNMP/ Mail /System Log alarm, HTTP/HTTPS/SSHD/TELNET access control
Troubleshooting	Ping, Traceroute, Packet Capture Diagnosis
Time Management	Time Zone, NTP Client
Indicator	Power indicator, running indicator, Ethernet port indicator, serial port transmission/receiving data indicator
Power Supply	12~48VDC power input, which is 3-pin 5.08mm pitch terminal block and supports non-polarity connection

Power Consumption

Available Models	No load @12V	Full load @12V
NP314T-4D(3IN1)-RJ-P(12-48VDC)	1.9W	2.3W
NP314T-4DI(RS-485)-TB-P(12-48VDC)	1.6W	2.1W
NP318T-8D(3IN1)-RJ-P(12-48VDC)	2.3W	3.2W
NP318T-8DI(RS-485)-TB-P(12-48VDC)	1.8W	2.2W

Working Environment	Operating temperature: -40~75℃ Storage temperature:-40~85℃ Relative humidity: 5%～95%(no condensation)
Physical Characteristic	Housing: IP40 protection, metal Installation: desktop and wall mounting Dimension (W x H x D): 170mm×30mm×110mm (lugs are not included) Weight: 0.54kg (4 3IN1), 0.53kg (4 RS-485), 0.6kg (8 3IN1), 0.57kg (8 RS-485)

Industrial Standard

IEC 61000-4-2 (ESD, electrostatic discharge), Level 3
- Air discharge:± 8kV
- Contact discharge: ±6kV

IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3
- Power supply: ±2kV
- Signal: ±1kV

IEC 61000-4-5 (Surge), Level 3
- Power supply: common mode±2kV, differential mode±1kV
- Signal: common mode±2kV, differential mode±1kV

Shock: IEC 60068-2-27
Free fall: IEC 60068-2-32
Vibration: IEC 60068-2-6

Authentication	CE, FCC, RoHS
Warranty	3 years

Ordering Information

Available Models	100M Copper Port	3IN1(RS-232/485/422)	RS-485	Power Supply
NP314T-4D(3IN1)-RJ-P(12-48VDC)	2	4	—	12~48VDC
NP314T-4DI(RS-485)-TB-P(12-48VDC)	2	—	4	
NP318T-8D(3IN1)-RJ-P(12-48VDC)	2	8	—	
NP318T-8DI(RS-485)-TB-P(12-48VDC)	2	—	8	

Honor・Quality・Service