NP3116T Series

1U Rack Mounting
16 3IN1 or RS-485 Serial Server

- Support 16 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 redundant power input, the input range of power is 85~265VAC

- Support -40~75℃ wide operating temperature range

Industrial Grade

Introduction

NP3116T 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 has 2 products, and provides 100M copper ports and 3IN1and RS-485 serial ports. It adopts 1U rack-mounted installation to meet the requirements of different application sites.

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.

DIP switch can achieve restore factory defaults of the device. 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.
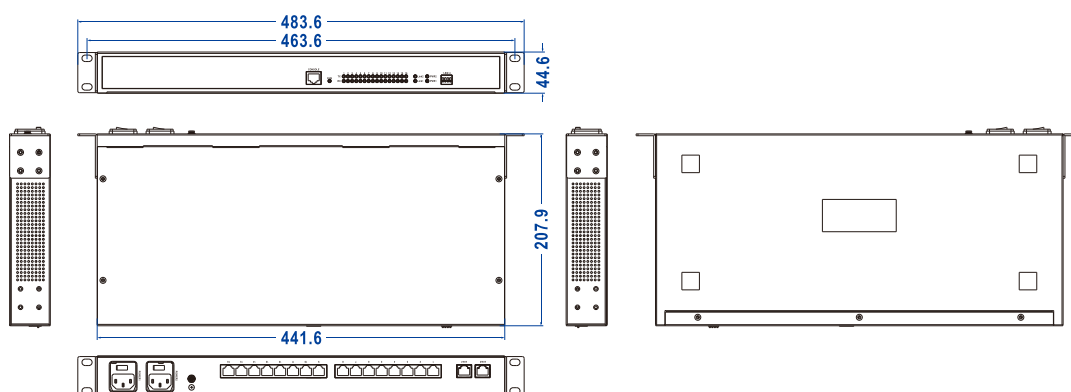
Features and Benefits

- Support 2 10/100Base-T(X) self-adaptive Ethernet interfaces and provide dual IP and MAC addresses to meet the requirements of multi-network management or network backup
- Support 110bps-115200bps (customizable 921600bps) line speed and non-blocking communication
- Support multiple 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
- ARP function is supported, which can prevent the MAC address of the device from being aged by the switch or router and unable to communicate
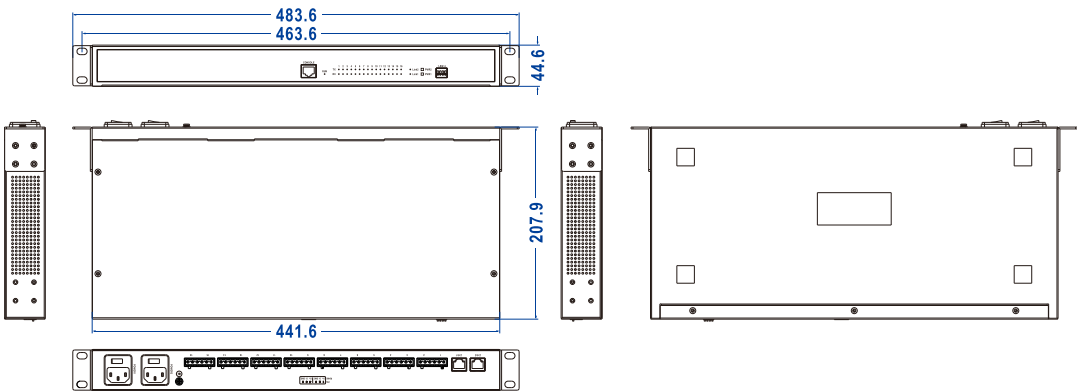- Support static routing, routing table could be added manually

Dimension

Unit: mm

- NP3116T-16D(3IN1)-RJ-2P(85-265VAC)

- NP3116T-16DI(RS-485)-TB-2P(85-265VAC)

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 Quantity of interfaces: double network port Duplex mode: full/half duplex mode self-adaption Working mode: Each serial port can simultaneously establish up to 4 TCP/UDP session connections. Support multiple operating modes like RealCom, TCP Server, TCP Client, UDP Server, UDP Client, UDP Rang and UDP Multicast
Serial Port	Standard: EIA RS-232C, RS-485, RS-422 Quantity of serial ports: 16 3IN1 or RS-485 3IN1 signal: DSR, RTS/R-, GND, TXD/R+, RXD, DCD/T-/D-, CTS, DTR/T+/D+ RS-485 signal: D+, D-, GND Baud rate: 110bps-15200bps (customizable110bps-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 adopts RJ45; RS-485 serial port adopts 6-pin 5.08mm pitch terminal blocks (each serial port occupies 3 pins) 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

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, single IP mode (dual 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 and receiving data indicator
Power Supply	85~265VAC redundant power input, AC power supply socket with switch

Power Consumption	Available Models	No-load	Full-load
	NP3116T-16D(3IN1)-RJ-2P(85-265VAC)	3.1W	5.7W
	NP3116T-16DI(RS-485)-TB-2P(85-265VAC)	3.2W	4.1W

Working Environment	Operating temperature: -40~75℃ Storage temperature:-40~85℃ Relative humidity: 5%～95%(no condensation)
Physical Characteristic	Housing: IP30 protection, metal Installation: 1U rack mounting Dimension (W x H x D): 441.6mm×44.6mm×207.9mm (lugs are not included) Weight: 2.6kg
Industrial Standard	IEC 61000-4-2 (ESD, electrostatic discharge), Level 4 ● Air discharge:± 15kV

	● Contact discharge: ±8kV IEC 61000-4-4 (EFT, electrical fast transient), Level 4 ● Power supply: ±4kV ● Signal: ±2kV IEC 61000-4-5 (Surge), Level 4 ● Power supply: common mode±4kV, differential mode±2kV ● Signal: common mode ±4kV, differential mode ±2kV 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	RS-485	3IN1	Power Supply
NP3116T-16D(3IN1)-RJ-2P(85-265VAC)	2	—	16	85~265VAC, redundant power supply
NP3116T-16DI(RS-485)-TB-2P(85-265VAC)	2	16	—	

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