NP3016T Series

Rack Mounting

16 RS-232/485/422/3IN1 Serial Device Server

- Support 16 RS-232/485/422/3IN1 serial port to 1 10/100Base-T(X) self-adaptive Ethernet interface

- Support single or dual Ethernet port

- Support RealCom, TCP Server, TCP Client, UDP Server, UDP Client, Pair Master, Pair Slave, UDP Rang, UDP Multicast and other operating modes

- Support 85~265VAC wide voltage input range

- Support wide operating temperature range

Introduction

NP3016T series are the serial device server that can make serial device be equipped with networking capability instantly and centrally manage the scattered serial devices and hosts via network. This series include 4 types of products; provide 16 RS-232/485/422/3IN1 serial port to 1 100M Ethernet copper port and support single or dual Ethernet port. It adopts rack mounting to meet the requirements of different application scenes.

Serial device server supports multiple network protocols, such as TCP, UDP, SNMP, TELNET, ARP, ICMP, HTTP, DNS 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, Pair Master, Pair Slave, UDP Rang, UDP Multicast operating modes and TELNET, WEB 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. It can provide users with good experience with friendly design of network management system interface, simple 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 suit for the industrial scene environment with harsh requirements for EMC. It can be widely used in PLC control and management, Building Automation System, Health Care Automation System, measuring instrument and environmental forces monitoring system.

Features and Benefits

⊙ Support 10/100Base-T(X) self-adaptive Ethernet interfaces
⊙ Support 300bps-115200bps line speed and non-blocking communication
⊙ Support RealCom, TCP Server, TCP Client, UDP Server, UDP Client, Pair Master, Pair Slave, UDP Rang, UDP Multicast and other operating modes
⊙ Support across gateway and routing 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 easily achieve accurate access control
⊙ Support classification of user management to realize humanized permission management
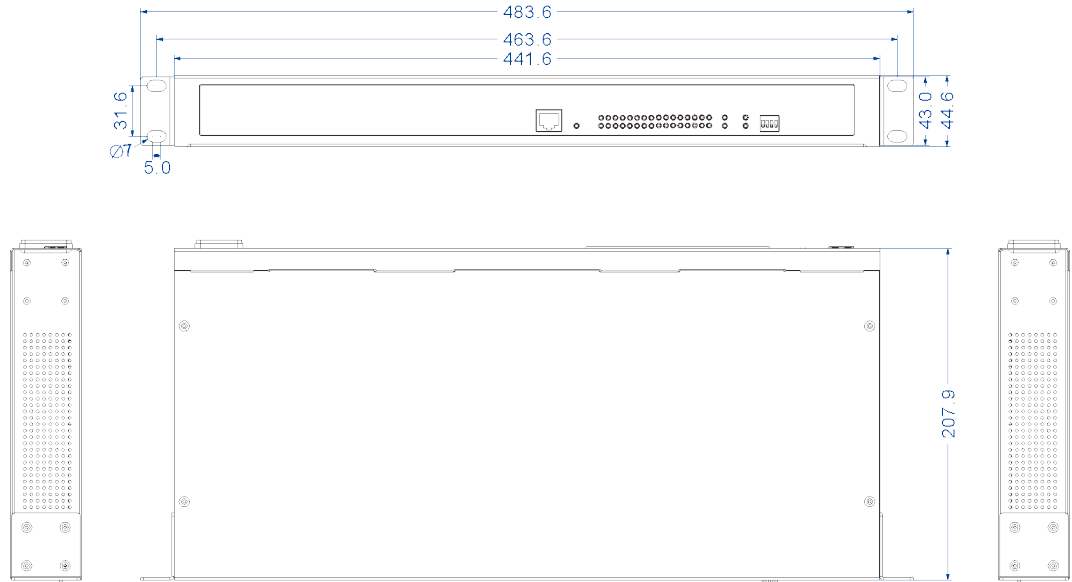⊙ Support serial port status and parameters monitoring, ensuring the communication

status be clear at a glance

⊙ Support RTS/CTS, DTR/DSR and XON/XOFF flow control

⊙ Support SNMP network management

⊙ Compatible with various virtual serial port management software

⊙ 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

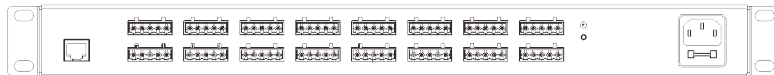⊙ Support Windows configuration tool, TELNET, WEB and other configuration forms

Dimension

Unit:mm

NP3016T-16D(232) & NP3016T-16D(3IN1)

NP3016T-16DI(RS-485)

NP3116T-16D(3IN1)

Specification

Ethernet	Standard: 10Base-T, 100Base-TX
	Protocol: TCP, UDP, ARP, HTTP, TELNET, SNMP, ICMP, DHCP, DNS
	Rate: 10/100M automatic flow control, MDI/MDI-X autotunning
	Interface form: RJ45
	Interface quantity: 1 or 2
	Duplex mode: full/half duplex mode self-adaption

	Operating mode: 4 sessions, support RealCom, TCP Server, TCP Client, UDP Server, UDP Client, Pair Master, Pair Slave, UDP Rang and UDP Multicast operating modes
Serial Port	Standard: EIA RS-232C, RS-485, RS-422 Quantity of serial port: 16 RS-485/422 or 3IN1 serial port RS-232 signal: RXD, TXD, DTR, GND, DSR, RTS, CTS, DCD RS-485 signal: D+, D-, GND RS-422 signal: T+, T-, GND, R+, R- Baud rate: 300-115200bps Data bit: 5bit, 6bit, 7bit, 8bit Parity bit: None, Even, Odd, Space, Mark Stop bit: 1bit, 2bit Interface form: RS-485/422 serial port with isolation, adopt 5 pins 5.08mm pitch terminal blocks 3IN1 serial port, adopt RJ45 Flow control: RTS/CTS, DTR/DSR, XON/XOFF Direction control: RS-485 direction adopts Automatic Data Direction Control (ADDC) Load capacity: RS-485/422 end supports 32 points polling (customizable 128 points) Transmission distance: RS-232, 15m; RS-485/422, 1200m Pull high/low resistor for RS-485: 4.7kΩ Electromagnetic isolation strength: RS-485/422 serial port (terminal block), 1.2kVAC
Configuration	WEB configuration management, TELNET configuration, Windows configuration tool
Security	Classification of User Permissions, IP address filtering, MAC address filtering, WEB console, TELNET console
Indicator	Power supply indicator, Ethernet port indicator, serial port indicator, running indicator
Power Requirement	Power supply: 85~265VAC Single power supply: NP3016T-16D(RS-232), NP3016T-16D(3IN1), NP3016T-16DI(RS-485) Dual power supply: NP3116T-16D(3IN1)

	Model	No-load (@220VAC)	Full-load (@220VAC)
Power Consumption	NP3016T-16D(RS-232)	6.7W	7.3W
	NP3016T-16DI(RS-485)	7.1W	7.9W
	NP3016T-16D(3IN1)	6.7W	7.3W
	NP3116T-16D(3IN1)	5.4W	5.7W

Environmental Limit	NP3016T-16DI(RS-485) ● Operating temperature: -25~55℃ ● Storage temperature: -30~85℃ ● Relative humidity: 5%～95%（no condensation） NP3016T-16D(RS-232), NP3016T-16D(3IN1), NP3116T-16D(3IN1) ● Operating temperature: -25~55℃ ● Storage temperature: -40~85℃ ● Relative humidity: 5%～95%（no condensation）
Physical Characteristic	Housing: IP30 protection, metal Installation: rack mounting Dimension (W x H x D): 441.6mm×44.6mm×207.9mm Weight: ≤2500g
Industrial Standard	IEC 61000-4-2 (ESD, Electro-static Discharge)，Level 3 ● Air discharge: ±8kV ● Contact discharge: ±6kV IEC 61000-4-4 (EFT/B, Electrical Fast Transient/Burst), Level 3 ● Power supply: ±2kV ● Signal: ±2kV IEC 61000-4-5 (Surge), Level 2 ● Power supply: common mode ±1kV, differential mode ±1kV ● Signal: common mode ±1kV, differential mode ±1kV Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6
Certification	CE, FCC, RoHS
Warranty	3 years

Ordering Information

Available Models	100M Copper Port	RS-232	RS-485/422	3IN1 (RS-232/485/422)	Power Supply Range
NP3016T-16 D(RS-232)	1	16	—	—	
NP3016T-16 DI(RS-485)	1	—	16	—	85~265VAC
NP3016T-16 D(3IN1)	1	—	—	16	
NP3116T-16 D(3IN1)	2	—	—	16	