NPM301Z

5V TTL Level Input

1 Serial Port to 1 100M Ethernet Port Serial Device Server Module

- Support 1 serial port to 1 10/100 Base-T(X) self-adaptive Ethernet port

- Support TCP Server, TCP Client, TCP Auto, UDP and Real COM driver operating mode

- Input power supply 5VDC

- Support -40～85℃ wide operating temperature range

Introduction

NPM301Z is a high performance embedded serial port to Ethernet module, it supports 1 RS-232, RS-422 or RS-485 to 1 100M Ethernet port.

The module is embedded with network transformer, and it can form a 10Base-T/100Base-TX self-adaptive Ethernet port via adding a RJ45 port. Baud rate of serial port is 300-115200bps. It supports TCP Server, TCP Client, TCP Auto, UDP and Real COM operating mode. It supports maximum 4 TCP connections and domain name access.
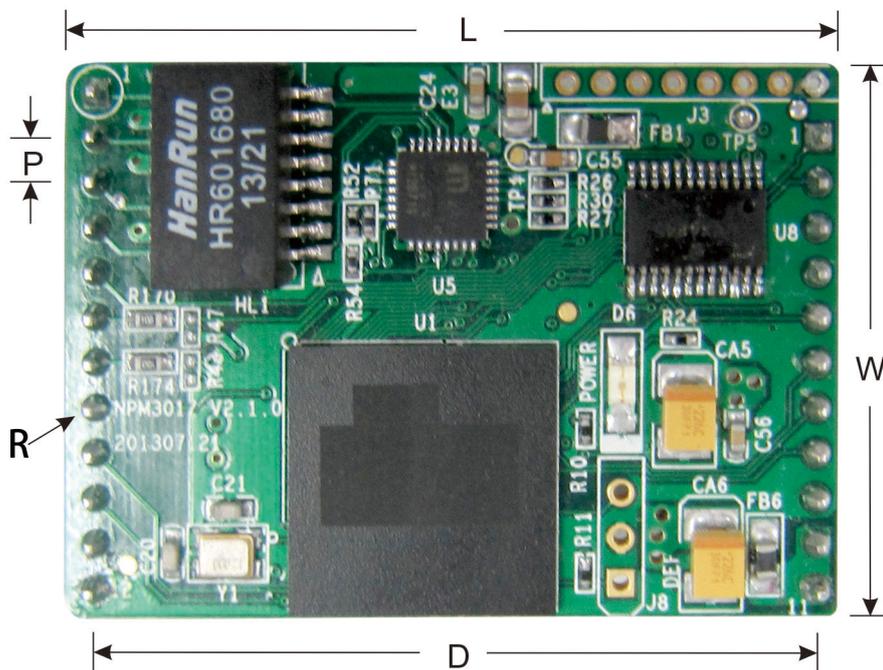
All settings of NPM301Z are achieved via serial port or network. It can be used as communication processor between serial device and PC or used for remote communication among multiple serial devices. It can be widely used in PLC control and management, building automation and control, healthcare automation system, measuring instrument and environment dynamic monitoring system.

Features and Benefits

- ⊙ Adopt 32 bits ARM processor
- ⊙ Support 10/100 Base-T(X) self-adaptive Ethernet port
- ⊙ Support AUTO MDI/MDIX, connectable to crossover cable or straight through cable
- ⊙ Support 300bps-115200bps line speed non-blocking communication
- ⊙ Support low power consumption mode and high performance mode
- ⊙ Support TCP Server, TCP Client, TCP Auto, UDP and Real COM driver operating mode
- ⊙ Operating port, destination IP address and port can be configured
- ⊙ Built-in WEB server, which is convenient for user to conduct webpage configuration
- ⊙ Support AT command, which is convenient for the user secondary development
- ⊙ Support DNS to meet the requirements of achieving communication via domain name
- ⊙ Support virtual serial port drive access mode and automatic connection recovery after network interruption
- ⊙ Support flexible serial port data frame segmentation to meet user's demand for message segmentation
- ⊙ Support SOCKET operating mode (TCP Server, TCP Client, UDP)
- ⊙ TCP supports multiple connections, so maximum four users can manage an embedded module device at the same time
- ⊙ Support single or multiple machine communication under UDP mode, so multiple users can simultaneously manage an embedded module device
- ⊙ Support SOCKET, serial port and WEB configuration
- ⊙ Support local and remote system software upgrading

Dimension

Unit: mm

Dimension of external view as follows:

Mark	Size	Description
L	44.2mm	Length
W	31.6mm	Width
H	7mm	Height (not including pin length, 9mm)
D	40.8mm	Width between two rows of pins
p	2.54mm	Pin spacing
R	1mm	Pin diameter

Specification

System Information	32 bits ARM inner core

	Standard: 10/100Base-X Protocol: support TCP, UDP, ARP, HTTP, DHCP and DNS protocol Speed: 10/100M Operating mode: full duplex or half duplex
Configuration	WEB configuration management, WINDOWS hyper terminal, BlueEyes_II management software
Security	User permission classification
Serial device server	1 serial device server, support 4 TCP or UDP session connections; Multiple operating modes: TCP Server, TCP Client, UDP, TCP auto, Realcom, advanced TCP Server and advanced UDP
Ethernet port	1 100M Ethernet port
Serial port	TTL: TXD, RXD, CTS, RTS, GND Parity bit: None, Even, Odd, Space, Mark Data bit: 5bit, 6bit, 7bit, 8bit Stop bit: 1bit, 1.5bit, 2bit Baud rate: 300-115200bps
Indicator	Interface indicator, power supply indicator
Power supply	5VDC (±5%)

Consumption	No-load@5VDC	Full-load@5VDC
Low consumption mode	0.62W	0.59W
High consumption mode	0.93W	0.91W

Environmental Limits	Operating temperature: -40～85℃ Storage temperature: -40～85℃ Relative humidity: 5%~95% (no condensation)
Mechanical structure	Type: pin type independent module Size (W×H×D): 44.2mm×16mm×31.6mm (with pins) Pin header: 12 pins on the left row, 11 pins on the right row, pin header spacing is 2.54mm Weight: 9g
Certification	CE, FCC, RoHS
Warranty	3 years

Ordering Information

Available Models	100M Ethernet port	RS-232/RS-422/RS-485	Power Supply
NPM301Z	1	1	5VDC