

# SMT Serial Ethernet Module

## ■ ■ ■ USR-TCP232-S2

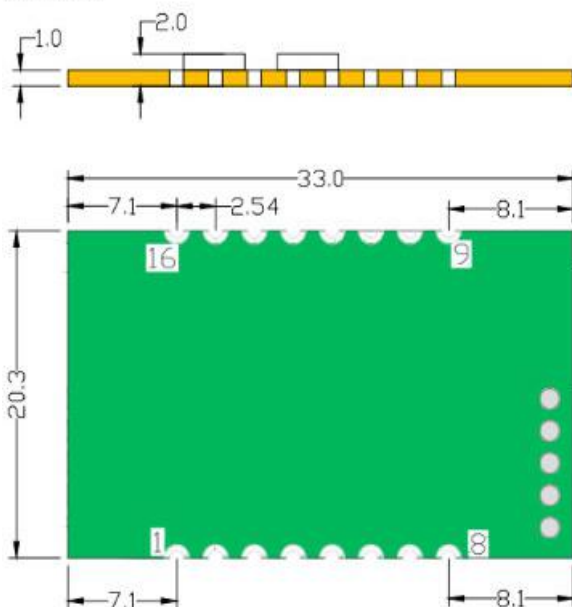
### Serial Ethernet data transmission

USR-TCP232-S2 is a tiny SMT serial TTL UART to Ethernet module which can realize data bidirectional transparent transmission between TTL and Ethernet port. It can also be applied in rs232/ rs485 by level shift circuit. USR-TCP232-S2 is based on Cortex-M0 core. It has characters of low power, fast speed and high efficiency.

## ■ ■ ■ TTL to Ethernet

- Support DNS function and custom setting of DNS server
- Support DHCP, automatically obtain an IP address
- Support customization
- Serial port baud rate from 600 bps to 460.8 Kbps, Check bit of None, Odd, Even, Mark and Space
- Upgrade firmware via network
- Work mode: TCP Server, TCP Client, UDP Client, UDP Server, HTTPD Client
- Auto-MDI/MDIX, RJ45 port with 10/100Mbps
- Restore factory default via software and hardware
- Self-defined heartbeat package mechanism to ensure connection is reliable, put an end to dead link
- Self-defined registration package mechanism, check connection status and use as custom packet header
- The global unique MAC address bought from IEEE, user can define MAC address
- Across the gateway, switches, routers
- Support virtual serial port and provide corresponding software USR-VCOM
- Under TCP Server mode, Client number ranges from 1 to 16; default number is 4
- Can work in LAN, also can work in the Internet
- Provide PC TCP/IP socket programming example such as VB, C++, Delphi, Android and IOS
- User can set parameters via webpage, AT command, serial protocol and network protocol; and setting protocol is provided, users can integrate it to their own software

unit: mm



## Specifications

### System Information

Processor	ARM
Flash	32K byte

### Serial

Port Number	1
Interface Standard	TTL
Data Bit	5, 6, 7, 8
Stop Bit	1, 2
Check Bit	None, Even, Odd, Space, Mark
Baud Rate	600 bps ~ 460.8 Kbps
Buffer	Receive: 800 bytes
RS485 Pull-up and Pull-Down Resistor	Null, reserved 485 send-receive control pin

### Ethernet

Rate	10/100 Mbps, MDI/MDIX, auto switch between cross and direct connection
Interface Standard	RJ45
Port Number	1
Network Protocol	IP, TCP, UDP, DHCP, DNS, HTTP, ARP, ICMP
Protection	2KV electromagnetism isolation
Buffer	Send: 6K bytes Receive: 4K bytes

### Basic Parameter

Size	33 x 20.3 mm
Operating Temp.	-25 ~ 75°C
Storage Temp.	-40 ~ 105°C, 5 ~ 95% RH
Input Voltage	DC 3.3V
Working Current	150mA (aver), 200mA (max)

### Software

Virtual Serial	Windows 2000 or higher (32 bit/64 bit) Computer set-up software
Configuration	Serial command Built-in webpage AT command

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