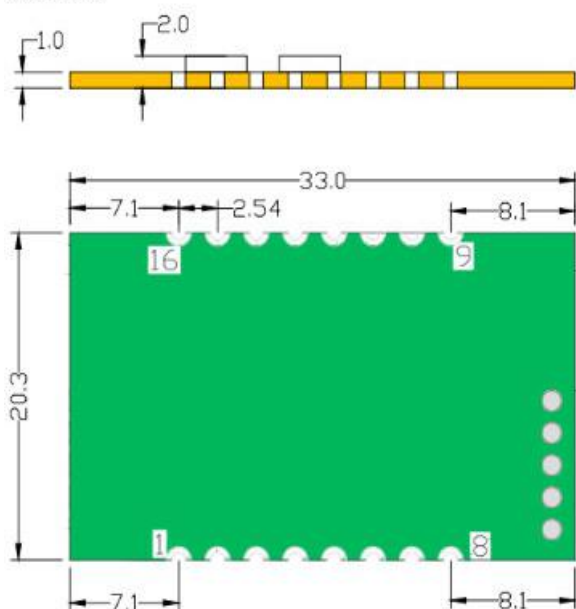# SMT Serial Ethernet Module

■ ■ ■ 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

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

unit: mm