

USR-TCP232-ED2 Datasheet

Triple UART to Ethernet Module

Build a Smarter IOT world, Your Trustworthy Partner

USR-TCP232-ED2 is a triple serial UART to Ethernet TCP/IP module. It adopts Cortex-M7 solution, has a main frequency of 400MHz, which has higher performance, faster transmission speed, and higher reliability. USR-TCP232-ED2 supports a deeply optimized TCP/IP stack, dual watchdog and a variety of keepalive mechanisms to ensure the stable operation. It supports triple UART ports working independently at the same time, supports TCP Client, TCP Server, UDP Client, UDP Server and HTTPD Client mode, achieves transparent data transmission via simple configuration.

✧ New Solution

New ARM core, Cortex-M7 solution, equipped with deeply optimized TCP/IP protocol stack. It has low latency and strong scalability, stable and reliable.

✧ Modbus Gateway

It supports Modbus TCP and Modbus RTU protocol conversion, Modbus poll function.

✧ Dual Sockets

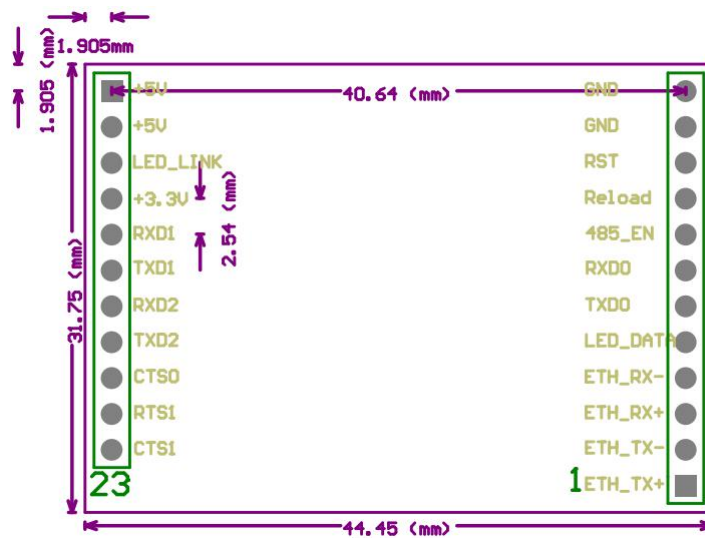
Each serial port supports connecting to two different servers at the same time. Two sockets are mutually backed up, providing higher reliability and flexibility.

Features

- ARM Core, industrial grade temperature range, optimized TCP/IP protocol stack, stable and reliable.
- 10/100Mbps Ethernet port, auto-MDI/MDIX.
- Supports TCP Client, TCP Server, UDP Client, UDP Server and HTTPD Client mode.
- Supports configuring via built-in webpage, supports firmware customization and custom webpage port(Defaults to 80).
- Supports triple UART interfaces, which can work independent with each other.
- Supports RTS/CTS hardware flow control and Xon/Xoff software flow control.
- Supports virtual serial port software (USR-VCOM).
- Serial baud rate supports from 600bps to 1Mbps, supports parity of None, Odd and Even.

- Supports Modbus gateway function, more convenient to use in industrial field.
- Supports hardware reset via the “Reload” button.
- Supports upgrading firmware via network.
- Supports static IP and DHCP, supports query the network devices via UDP broadcast protocol.
- Supports keepalive mechanism to quickly detect the dead connections and reconnect.
- Supports username and password for web login, more secure.
- Supports websocket function for bidirectional data transmission between a maximum of 16 websocket clients and any serial port.

Dimensions



Specifications

	Parameters	Value
Hardware Parameters	Input Voltage	VCC:3.0~3.6V, (3.3V recommended) VDD:4.75~5.5V, (5.0V recommended)
	Working Power	210mA@3.3V/175mA@5.0V
	Dimensions	44.5x31.8x15.4mm(L*W*H)
	Encapsulation	Pin encapsulation
	Operating Temperature	-40~85°C
	Storage Temperature	-40~105°C
	Operating Humidity	5%~95% RH(non-condensing)
	Storage Humidity	5%~95% RH(non-condensing)
	Certifications	CE/FCC/ROSH
Interface Parameters	Ethernet Port Spec.	RJ45, 10/100Mbps, auto MDI/MDIX
	Ethernet Port No.	1
	Serial Port Spec.	TTL
	Serial Port No.	3
	Serial Baud Rate	600-1M(bps)
	Data Bit	7, 8
	Parity	None, Even, Odd
	Flow Control	RTS/CTS, XON/XOFF
	RS-485 Pull-up and Pull-down Resistor	2.2KΩ
Software Parameters	Network Protocol	IP/TCP/UDP/DHCP/DNS/HTTP/ARP/ICMP
	IP Mode	Static IP, DHCP
	DNS	Support
	Modbus TCP	Support
	Websocket	Support
	HTTP Client	Support
	UDP Broadcast	Support
	User Configuring	Setup utility, webpage, AT commands
	Serial Cache	Dynamic packet cache. For example: When the packet length is 10 byte, the serial port can cache 450 packets(4.5KB). When the packet length is 1460 bytes, the serial port can cache 10 packets(14.6KB).
	Ethernet Cache	48Kbyte

Purchase & Support

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