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,which has a main frequency up to 400MHz, powerful performance, fast transmission speed, and high reliability. Equipped with a deeply optimized TCP/IP stack, built in hardware and software watchdog and a variety of keepalive mechanisms,USR-TCP232-ED2 keeps online all the time. It supports TCP Client, TCP Server, UDP Client, UDP Server and HTTPD Client working modes, achieves data transparent 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 mutual conversion, multi-host polling function.
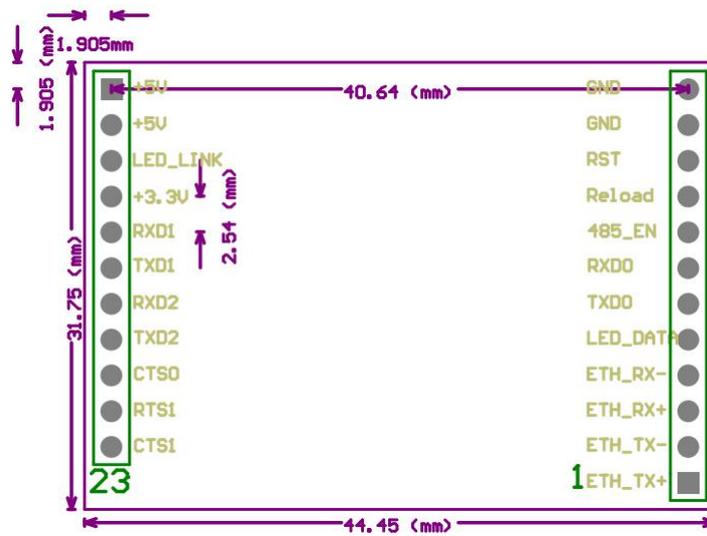
✧   Dual Sockets

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

Features

- ARM Core, industrial grade temperature range, optimized TCP/IP protocol stack, stable and reliable.

- Supports TCP Client, TCP Server, UDP Client, UDP Server and HTTPD Client mode.

- Supports configuring parameters via built-in webpage,supports custom webpage

- Supports upgrading firmware via built-in webpage and configuration software, more convenient.

- Supports triple UART interfaces, which can work independently.

- Supports RTS/CTS hardware flow control and Xon/Xoff software flow control.

- Supports Virtual COM Port Driver (USR-VCOM).

- Supports hardware reset via the "Reload" button.

- Supports static IP and DHCP, supports scan the 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 for bidirectional data transmission between a maximum of 16 websocket clients and any serial port.

- Supports serial and network AT commands.

Dimensions

Specifications

Item	Parameter	Description
Hardware Parameters	Input Voltage	VCC:3.0～3.6V, (3.3V recommended)
		VDD:4.75～5.5V, (5.0V recommended)
	Input Current	210mA@3.3V/175mA@5.0V
	Dimensions	44.5x31.8x15.4mm(L*W*H)
	Encapsulation	DIP encapsulation
	Operating Temperature	-40~85℃
	Storage Temperature	-40~105℃
	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.	UART TTL 3.3V
	Serial Port No.	3
	Serial Baud Rate	600-1M(bps)
	Data Bit	7, 8
	Parity	None, Even, Odd
	Flow Control	None, 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
	Modbus TCP	Support
	Websocket	Support
	HTTP Client	Support
	UDP Broadcast	Support
	User Configuring	Setup utility, webpage, AT commands
	Serial Packets 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 Packets Cache	48Kbyte

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