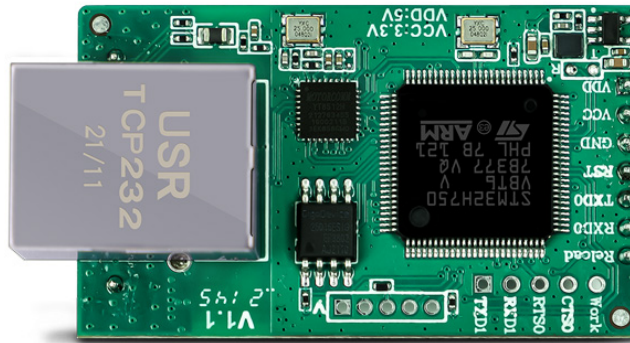


# USR-TCP232-E2 ( H 7 - Y ) Datasheet

File version: V1.4



# Ethernet Module

## ■ ■ ■ USR-TCP232-E2 (H7-Y)

### TTL-Ethernet module access to Network

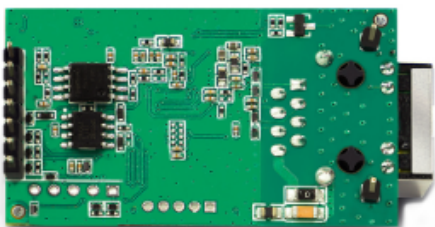
USR-TCP232-E2 is an embedded TCP/IP module provide solutions to build serial to ethernet connectivity while also controlling your serial device and make data transmission.

To realize two-way transparent transmission between COM and TCP/IP,manage COM on remote device over network.

To communicate to multiple serial devices at the same time across a LAN or WAN network.

### ■ ■ ■ UART to Ethernet

- The global unique MAC address bought from IEEE, defined MAC address is available
- Virtual COM ports connect PC/servers to remote serial devices over Ethernet
- Hardware flow control RTS/CTS
- Modbus TCP to Modbus RTU, work as slave
- HTTPD Client and Websocket function available
- Up to 1 6 clients when act as TCP Server
- Support DNS & DHCP, automatically access IP
- Two TTL interface can be worked at one time
- Reload button, a key restore default Settings
- With network transformer,connected to RJ45 directly
- Without RS-485 Pull-up and Pull-Down Resistor
- Supports UDP multicast
- Websocket: Serial port 1, LOG,closed
- Power supply: 4.75V~5.5V



## Specifications

### System Information

Processor	STM32H750VBT6(MCU)
Basic Frequency	400MHz
Flash	128K +4M byte

### Ethernet

Port Number	1
Interface Standard	8 pin RJ45
Rate	10/100 Mbps auto-detection, MDI/MDIX
Receive Buffer	Max 48k bytes buffer
Network Protocol	IP, TCP, UDP, DHCP, DNS, HTTP, ARP, ICMP, Web socket, HTTPD Client
Protection	1.5KV electromagnetism isolation shell insulation blocking
Auto MDI/MDIX	Yes

### Serial

Ports	Two
Interface	TTL (UART)
Baud Rate	UART: 600 bps ~ 1M bps
Data Bits	7, 8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Flow Control	Hardware: RTS/CTS
Buffer	Per-packet cache

### Software

Virtual Serial	Windows 2000 or higher (32 bit/64 bit)
Configuration	Webpage/ Set-up software/ Serial command

### Basic Parameter

Dimensions	50 x 30 x 23.2mm
Operating Temp.	-40 ~ 85°C
Storage Temp.	-40 ~ 85°C, 5 ~ 95% RH

### Power

Input	DC3.3V / VDD5V;
Working Current	115~125mA, arrange at 210mA @3.3V 115~125mA, arrange at 155mA @5V
Consumption	<1W

### More

Certificate	CE, FCC, ROHS
Warranty	2 years

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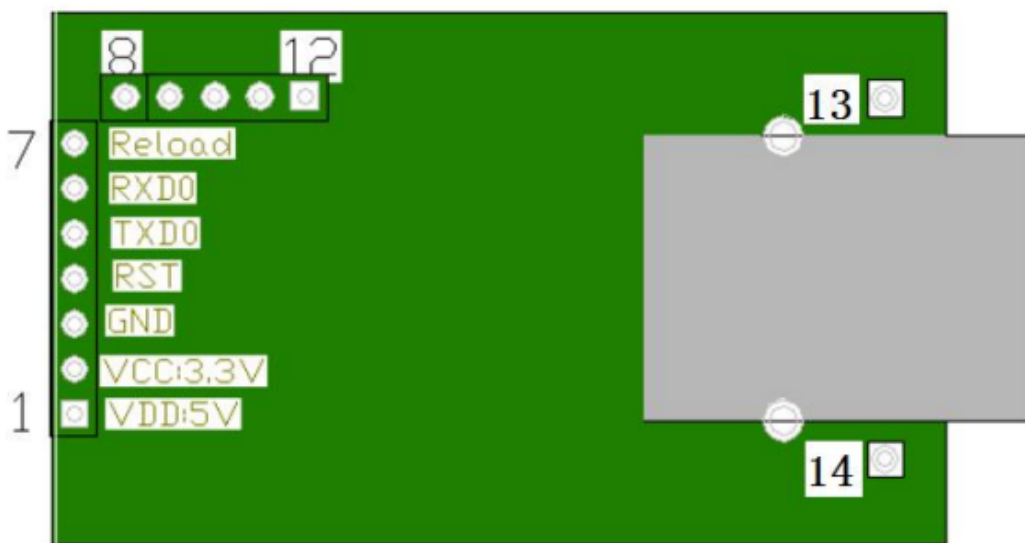
Email: sales@usriot.com



# 1. Product Overview

## 1.1. Dimension

Module dimension diagram as follow:



PIN	Name	I/O	Voltage Range	Definition
1	VDD	P	5V	5.0V power supply.
2	VCC	P	3.0~3.6V	3.3V power supply.
3	GND	P	-	Power ground
4	RST	I	3.0~3.6V	Resetting the module and taking effect in low level. Inputting low level for 200ms will reset the module. User can connect RST pin to MCU I/O to reset the module through MCU controlling when exceptions occur.
5	TXD0	O	3.0~3.6V	Serial port 1 TX pin.
6	RXD0	I	3.0~3.6V	Serial port 1 RX pin.
7	Reload	I	3.0~3.6V	When module are working normally, user should make Reload pin not available or connect to high level. Inputting low level will enable configuring the module by serial port. User should power the module firstly, then pull down Reload pin to enter serial port configuration mode. When user uses Reload pin to restore the default settings, serial port can't have data transmission.
8	LED_Work	O	3.0~3.6V	Module work LED.
9	CTS0	I	3.0~3.6V	Serial port 1 CTS pin. Flow control pin.
10	RTS0	O	3.0~3.6V	Serial port 1 RTS pin. Flow control pin.
11	RXD1	I	3.0~3.6V	Serial port 2 RX pin.
12	TXD1	O	3.0~3.6V	Serial port 2 TX pin.

**Figure 2 Pin definition**

**P:** The pin of power supply: Input pin

**O:** Output pin

The above 8-12 are backup pin (Closed use)

**Size: 50.5\*30.0mm**

单位: mm

