

Communication Expert of Industrial IOT

# Serial Device Server Specification USR-TCP232-302/304/306

## Introduction

USR-TCP232-302, USR-TCP232-304 and USR-TCP232-306 are cost-effective serial to Ethernet converter. They adopt Cortex-M0 solution, which has a main frequency up to 48MHz, providing fast transmission speed. Equipped with RS232/RS485/RS422 serial port and 10/100M Ethernet port, those products can connect to variety of serial devices to achieve transparent transmission via simple configuration to save manpower and shorten the development cycle. These products are widely used in smart traffic, unattended Weighing, manufacturing industry etc.

USR-TCP232-302, 304 and 306 are identical in software features, they both support transparent data transmission, Modbus gateway, user-defined webpage, heartbeat packet, registration packet, index function etc.

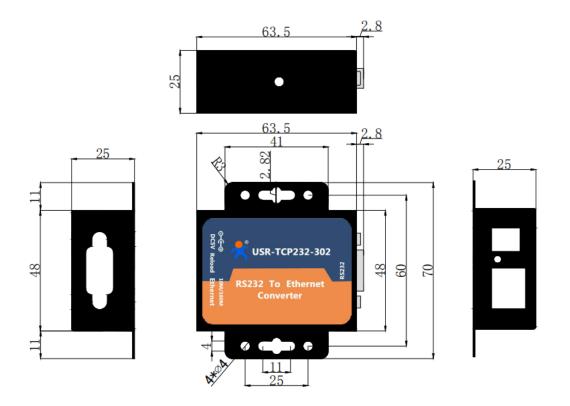
In hardware, TCP232-302 is RS232 to Ethernet converter, TCP232-304 is RS485 to Ethernet, TCP232-306 supports RS485/RS232/RS422, but RS485/RS232/RS422 can't work at the same time.

#### **Product Features**

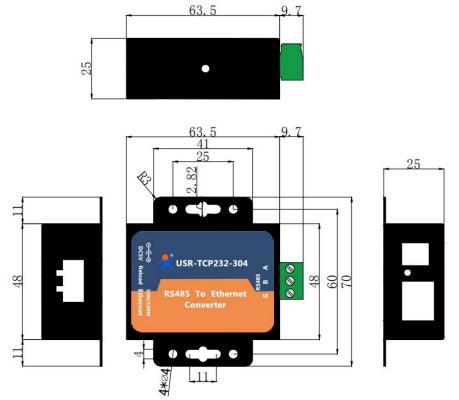
- ARM core, Cortex-M0 solution, equipped with deeply optimized TCP/IP protocol stack. It has low latency and strong scalability, stable and reliable.
- Supports custom webpage function to help users improve brand influence.
- 1.5KV built-in network Magnetic Isolation.
- Wide baud rate: 600~460.8 Kbps, multiple parity bit: NONE, Odd, Even, Space, Mark
- Supports Modbus RTU to Modbus TCP protocol conversion and multi-host polling.
- Supports keepalive mechanism to quickly detect the dead connections and reconnect.
- Supports hardware and software watchdog, automatically restarts when the device goes down.
- 10/100Mbps Ethernet port and support Auto MDI/MDIX.
- Supports a wide industrial operating temperature, -40°C~85°C.
- Versatile operation modes: TCP Server, TCP Client, UDP, HTTP client.
- Support virtual COM, COM Port Redirector USR-VCOM (windows).
- Easy to config: built-in webpage and AT command to set parameters.

### Dimensions

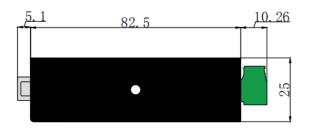
#### Unit: mm



#### **SPECIFICATION**



#### Fig.2 Dimension of TCP232-304



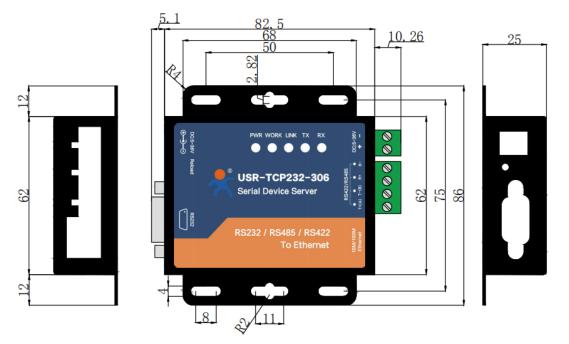


Fig.3 Dimension of TCP232-306

# **Specifications**

| Model                   | USR-TCP232-302   | USR-TCP232-304                                | USR-TCP232-306  |
|-------------------------|--|---|---|
| Processor               | ARM Cortex-M0, 48MHz   |   |   |
| Power Supply            |  |   |   |
| Power Input             | DC: 5.0~7.0 V,<br>Connector: DC 5.5*2.1 mm                                     | DC: 5.0~7.0 V,<br>Connector: DC 5.5*2.1<br>mm | DC: 5.0 $\sim$ 36.0 V,<br>Connector: 5.5*2.1 mm & 2 pin<br>terminal block |
| Consumption             | 150mA@5V   | 150mA@5V                                      | 116mA@5V, 53mA@12V  |
| Ethernet Port           | _  | _   | _   |
| Ethernet Port           | 1 x RJ45, 10/100Mbps, auto MDI/MDIX  |   |   |
| Serial Port             |  |   |   |
| Serial Port             | RS232  | RS485   | RS232/485/422(Not work at the same time)                                  |
| Baud Rate               | 600~230.4 Kbps   |   |   |
| Data Bits               | 5,6,7,8  |   |   |
| Stop Bit                | 1,2  |   |   |
| Parity Bit              | None, Odd, Even, Mark, Space   |   |   |
| Serial Packeting        | Packeting Time: Four-byte sending time<br>Packeting Length: 400 Bytes          |   |   |
| Serial Packet Cache     | Receive:2KBytes  |   |   |
| Reload Button           |  | ٧   |   |
| Physical Parameters     |  |   |   |
| Dimension(L*W*H)        | 66.3*70.0*25.0 mm  | 73.2*70.0*25.0 mm                             | 98.0×86.0×25.0 mm   |
| Installation            | Wall Mounting  |   |   |
| Operating Temp          | -25~75°C   |   |   |
| Storage Temp            | -40~105°C  |   |   |
| Operating Humility      | 5%~95% RH(non-condensing)  |   |   |
| Storage Humility        | 5%~95% RH(non-condensing)  |   |   |
| Indicators              | None   | None  | PWR, WORK,LINK,TX,RX  |
| Software                |  |   |   |
| Network Protocol        | IP, TCP/UDP, DHCP, RCMP, HTTP, IPv4, DNS                                       |   |   |
| IP Mode                 | DHCP, STATIC IP  |   |   |
| DNS Service             | ٧  |   |   |
| Config Method           | AT Command, Built-in webpage,<br>Config Software, Config Protocol              |   |   |
| Work Mode               | TCP Server/TCP Client/UDP Server<br>/UDP Client/Httpd Client                   |   |   |
| Modbus Gateway          | Modbus RTU to Modbus TCP, Multi-host Modbus Polling                            |   |   |
| User-Defined<br>Webpage | $\checkmark$   |   |   |
| TCP Server              | 16 clients   |   |   |
| Network Packet          | Send: 6K Bytes   |   |   |
| Cache                   | Receive: 4K Bytes  |   |   |
| Additional Features     | RFC2217 Similar, Heartbeat Packet, Registration Packet, Index, No Data Restart |   |   |
| Others                  |  |   |   |
| EMC Level               | IEC61000, Level 3(Surge, ESD, EFT)   |   |   |
| Certificate             | CE   |   |   |

# **Purchase & Support**

- For more information, please visit our websites:
- Official website: https://pusr.com
- Official shop: https://shop.usriot.com
- Technical support: <a href="http://h.usriot.com/">http://h.usriot.com/</a>





Official Website: www.pusr.com Official Shop: shop.usriot.com Technical Support: h.usriot.com Inquiry Email: inquiry@usriot.com Skype & WhatsApp: +86 13405313834 Click to view more: Product Catalog & Facebook & Youtube