Dual Band WiFi Device Server

USR-W660

Introduction

USR-W660 is a Wi-Fi 6 industrial wireless device with high speed, wide connection, low delay, and high stability. The measured rate of Wi-Fi 6 is up to 800Mbps. In AP hotspot mode, it can carry more than 8 Wi-Fi users. It integrates rich hardware interfaces: 1*RS232, 1*RS485, Ethernet ports (1LAN+1WAN/LAN). It supports AP/STA/AP+STA/bridge mode and can provide stable and reliable networking solutions for different scenarios and industries.

This device adopts industrial-grade standards: wide temperature and wide voltage, EMC protection. In software, it supports MODBUS, MQTT, TCP, UDP and other transmission protocols. The device supports single-link fast roaming. In a wireless local area network composed of multiple APs, roaming can be realized without AP switching operations. The built-in software and hardware dual watchdog, fault self-recovery can ensure the device operate stably and reliably in different harsh environments and industry scenarios like AGV automated transportation, robot, smart medical, smart storage, smart factories etc.

Product Features

Stable And Reliable

- Metal housing, IP30 protection
- Wide operating temperature: -35℃~+70℃
- EMC protection: Surge protection, level 3; ESD protection, level 3; EFT protection, level 3; IEC61000
- voltage input: DC 12V, with power reverse protection.
- Built-in hardware watchdog, fault self-detection, self-repair, firmware backup and restore functions to ensure system stability without crashing.
- Supports wall mounting, Din rail mounting, desktop placement.
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Flexible Networking

- Support WIFI6 technology (IEEE 802.11 ax), support dual-band WIFI (2.4 and 5G) AP/STA/AP+STA/bridge mode.
- Support fast Wi-Fi roaming, network switching as low as 100ms.
- Support Gigabit ports: 1 x WAN/LAN, 1 x LAN.
- Support RS232/RS485, serial port data acquisition is easier.
- Compatible with mainstream industrial protocols: TCP/UDP/MODBUS/HTTP/MQTT/SNMP, etc.
- Supports connecting to mainstream cloud platforms such as Alibaba Cloud and AWS Cloud, making it easy for devices to go to the cloud.
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Powerful features

- Support a complete anti-drop mechanism to ensure the stability of data transmission.
- Support wired/STA multi-network intelligent backup function, keep the link always unblocked.
- Support PUSR service, users can open the built-in webpage operation and maintenance of wireless client through PUSR platform, which facilitates centralized management of equipment

Support SNMP, NTP time calibration, MAC-IP binding, anti-access restriction and other special functions.

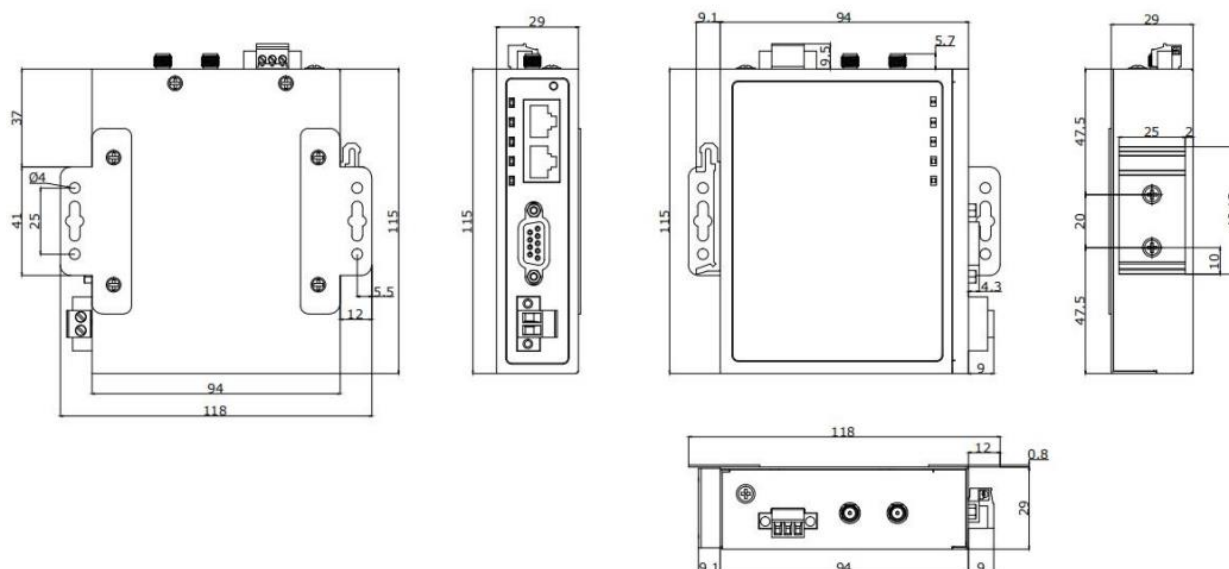## Dimensions

Unit: mm

With pleural spreading
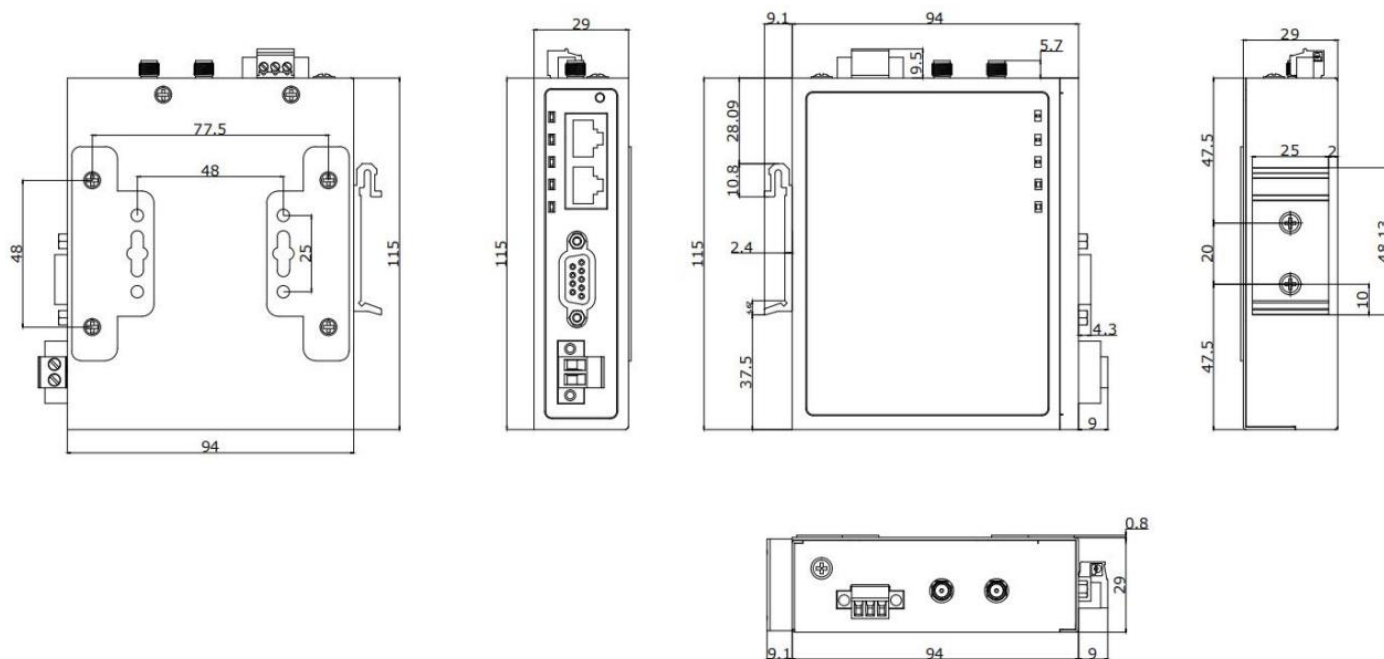
Fig.1 Dimension

With pleural holding

Fig.2 Dimension

Specifications

Items	Description
Power Supply	DC: 12V, 2-pin terminal blocks, reverse polarity protection, surge protection

Working Current	Average: 600mA@12V, max: 1.35A @12V
Serial port	
No.	1 x RS485, 1 x RS232, can't work simultaneously.
Baud rates	RS232: 1200 ~ 115200bps RS485: 1200 ~ 230400bps
Data bits	7, 8
Stop bits	1, 2
Parity	NONE, ODD, EVEN
Packaging Interval	Range: 1 ~ 3000ms, default: 50ms
Packaging Length	Range: 5 ~ 1500 bytes, default: 1000 bytes
Ethernet Ports	
No.	2 x Ethernet ports: 1 x WAN/LAN(configurable), 1 x LAN
Interface	RJ45, 10/100/1000 Mbps, compliance with IEEE 802.3, supports auto MDI/MDIX, 1.5KV network isolation transformer protection
Wi-Fi	
Standards & Frequency	IEEE 802.11b/g/n/ac/ax, 2.4GHz & 5.2G & 5.8G
Working Mode	AP/STA/AP+STA/Bridge
Data speed	1201Mbps(5.2GHz& 5.8G) & 573.5Mbps(2.4GHz)
MU-MIMO	2 x 2
OFDMA	DL-OFDMA 8(8 users); UL-OFDMA (4 users)
Covering distance	200 meters by line of sight.Actual transmission distance depends on environment of the site.
Wi-Fi Users	8 +
Antenna	2 x SMA-female
Wi-Fi Roaming	√
Physical Property	
Casing material	Metal shell, IP30 protection
Dimensions	115*94*29mm(L x W x H, antenna pedestal,terminal block and DIN Rail are not included)
Installation	Wall mounting, Din rail mounting, desktop placement
EMC	Surge protection: level 3, IEC61000 ESD protection: level 3, IEC61000 EFT protection: level 3, IEC61000
Operating temperature	-35℃～ +70℃
Storage temperature	-40℃～+125℃
Operating humidity	5% ~ 95% RH, non-condensing
Storage humidity	1% ~ 95% RH, non-condensing
Software Function	
Network protocols	TCP, UDP, HTTP, TLS, MQTT, ARP, DHCP, ICMP, PPPoE, IPv4, DNS, SNMP, NTP,
Modbus Gateway	Modbus RTU/TCP protocol conversion, Modbus multi-host polling
IP	DHCP/StaticIP
MQTT	standard MQTT protocol, 16 subscription topics and 16 publish topics
IOT PLATFORMS	AWS IOT, Alibaba cloud, PUSR cloud
User Configuring	Web console(HTTP)
Others	
Reload	Pinhole reset button
Indicators	1 x RS485, 1 x RS232, 1x WLAN, 1 x RUN, 1 x PWR

Ground protection	Screw
APPROVALS	
Regulatory	CCC, CE/RED*, RoHS*, WEEE*, FCC*

Purchase & Support

■ For more information, please visit our websites:

- Official website: **https://pusr.com**

- Official shop: **https://shop.usriot.com**

- Technical support: **http://h.usriot.com/**

FCC STATEMENT :
This device complies with Part15 of the FCC Rules. Operation is subject to the followingtwo conditions:
(1) This device may not causeharmful interference, and
(2) This device must accept any interference received, including interference that maycause undesired operation.
Warning:Changes or modifications not expressly approved by the party responsible forcompliance could void the user'sauthority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class Bdigital device, pursuant to Part 15 of the FCC Rules. These limits are designed to providereasonable protectionagainst harmful interference in a residential installation. Thisequipment generates uses and can radiate radio frequency energyand, if not installedand used in accordance with the instructions, may cause harmfulinterference to radiocommunications. However, there isno guarantee that interference will not occur in aparticular installation. If this equipment doescause harmful interference to radio ortelevision reception, which can be determined by turning the equipment off and on, theuser is encouraged to try to correct the interference by one ormore of the followingmeasures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which thereceiver is connected.
Consult the dealer or an experienced radio/TV technician for help.
FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits setforth for anuncontrolled environment.
This equipment should be installed and operatedwith minimum distance 20cm between the radiator & your body.

Your Trustworthy Smart IOT Partner