Dual Band Wi-Fi Device Server

USR-W630s

Introduction

USR-W630s is a dual band Wi-Fi 5 industrial wireless device with high speed, wide connection, low delay, and high stability. It supports standard 802.11a/b/g/n/ac protocols. In AP mode, it can carry more than 16+ 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 and high EMC protection. In software, it supports MODBUS, MQTT, TCP, UDP and other transmission protocols. 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: -25℃~+75℃.
- EMC protection: Surge protection, level 3; ESD protection, level 3; EFT protection, level 3; IEC61000
- Wide voltage input: DC 9-36V, 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, desktop placement.

Flexible Networking

- Support 802.11a/b/g/n/ac, 2.4G & 5.8G WiFi;
- Multiple network methods: AP/STA/AP+STA/Bridge
- Support 2 Ethernet ports: 1 x WAN/LAN configurable, 1 x LAN.
- Support RS232/RS485, serial port data acquisition is easier.
- Compatible with mainstream data transmission protocols: TCP/UDP/MODBUS/HTTP/MQTT, etc.
- WPA3 encryption and SSL protocol is supported, make it more security for user's data transmission.
- Supports connecting to mainstream cloud platforms such as Alibaba Cloud and AWS Cloud.

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 remote management via PUSR cloud, users can login the web page to check and set all the parameters.
- Support SNMP, NTP time calibration, MAC-IP binding, anti-access restriction and other special functions.
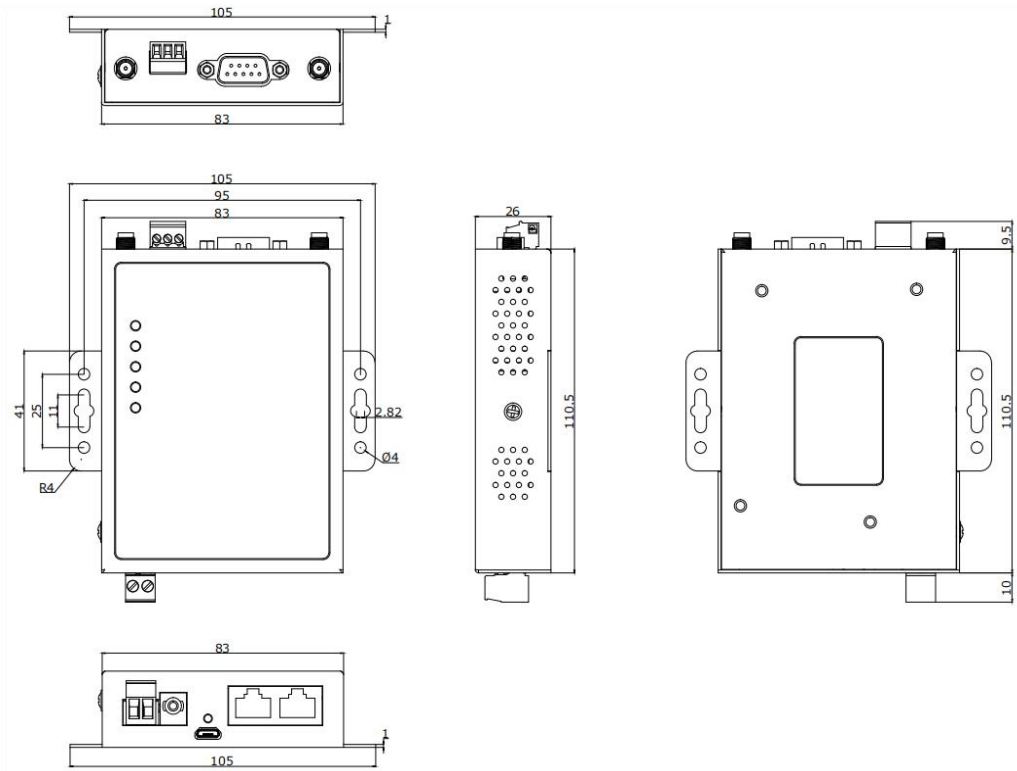
Dimensions

Unit: mm

Fig.1 Dimension

Specifications

Items	Description
Power Supply	DC: 9~36V, 2-pin terminal block connector, 5.08mm-2P, reverse polarity protection, surge protection 5.5*2.1 DC jack connector
Working Current	Average: 300mA@12V, max: 700mA @12V
Serial port	
No.	1 x RS485, 3-pin terminal block connector, 3.81mm-3P 1 x RS232, DB9 male
Baud rates	RS232: 1200/2400/4800/9600/19200/38400/57600/115200/230400 RS485: 1200/2400/4800/9600/19200/38400/57600/115200/230400
Data bits	7, 8
Stop bits	1, 2
Parity	NONE, ODD, EVEN
Flow Control	RS232: Hardware flow control RS485: 485 conflict prevention
Packaging Interval	Range: 0 ~ 1000ms, default: 0ms
Packaging Length	Range: 5 ~ 1460 bytes, default: 1000 bytes
Ethernet Ports	
No.	2 x Ethernet ports: 1 x WAN/LAN(configurable), 1 x LAN
Interface	RJ45, 10/100 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, 2.4GHz & 5.8G
Working Mode	AP/STA/AP+STA/Bridge

Data speed	867Mbps(5.8GHz) & 300Mbps(2.4GHz)
MU-MIMO	2 x 2
Modulation system	DSSS(DBPSK.DOPSK,CCK)
	OFDM(BPSK, QPSK, 16-QAM, 64-QAM, 125-QAM, 256-QAM)
Covering distance	2.4G: Coverage radius up to 400 meters
	5.8G: Coverage radius up to 200 meters
Wi-Fi Users	16
Antenna	2 x 5 dBi rod antenna
Antenna Connector	2 x SMA-female
Physical Property	
Casing material	Metal shell, IP30 protection
Dimensions	110.5*105*26mm(L*W*H,antenna pedestal,terminal block are not included)
Installation	Wall munting, desktop placement
EMC	Surge protection: level 3, IEC61000
	ESD protection: level 3, IEC61000
	EFT protection: level 3, IEC61000
Operating temperature	-25℃～+75℃
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
Registration packet	√
Heartbeat packet	√
IOT PLATFORMS	AWS IOT, Alibaba cloud, PUSR cloud
User Configuring	Web console(HTTP), AT command
Others	
Reload	Pinhole reset button, press and hold for 3~15 to reset to factory settings
Indicators	1 x RS485, 1 x RS232, 1x WLAN, 1 x RUN, 1 x PWR
Ground protection	Screw
APPROVALS	
Regulatory	CE/RED*, RoHS*, WEEE*, FCC*

Purchase & Support

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