

Product Name: 4G Industrial Router  
R9505 Series

# Datasheet

## Overview

The R9505 series is a dual-port industrial grade note wireless router, using wireless cellular network as the bearer network, supporting 4G/3G/2G note network, with compact size, low power consumption, flexible interface design and rich intelligent hardware and software functions, providing secure and high-speed wireless connection for networking between remote devices and data centers. It is widely used in smart power, smart agriculture, smart transportation, smart medical, smart factory, smart water conservancy, smart environmental protection, smart city, industrial control and other fields.

The R9505 series industrial grade wireless router, and supports multiple VPN protocols (OpenVPN, IPsec, L2TP/PPTP, N2N, GRE) to prevent data from being maliciously accessed or tampered with, to ensure the security of data transmission. Adopt hardware and software watchdog and multi-level link detection mechanism to ensure the stability and reliability of communication.

The R9505 series industrial wireless router is designed to fully meet the needs of unattended on-site communication, and supports remote configuration of Utek Device Management Cloud device management cloud platform and TCP/IP to achieve a variety of flexible and efficient on-site or remote configuration and management methods, reducing the difficulty of post-maintenance, significantly improving construction efficiency and reducing the system operation costs, to achieve customers real experience of the convenience of wireless communication.

## Features

### Industrial grade design to meet the needs of industrial users

- Adopt industrial grade chip design to the harsh operating environment of industrial sites
- IP30 protection level, Safe isolation of housing and system for applications in industrial control sites
- Low power consumption, support +6~35VDC wide voltage power supply, suitable for various field power supply methods
- Fanless design for long operating hours at temperatures range of -30 ~ 75°C

### Highly reliable design to ensure stable operation of the equipment

- Built-in watchdog technology, self-recovery from faults, ensuring stable operation of the equipment
- Support L2TP, IPsec, GRE, N2N and other VPN encryption modes to ensure data transmission security
- Multi-level link detection and anti-dropout mechanism to ensure the device is always online
- Small footprint, dual antenna design, wireless signal enhancement and improved

network performance

## Easy to use and manage

- Supports industrial serial interfaces, RS232 & RS485
- Supports WEB configuration interface, extremely easy to deploy
- Supports local and remote firmware upgrades, saving manpower and resources
- Support Utek Device Management Cloud platform, batch operation and centralized management

## Experience the convenience of wireless communication quickly and with full functionality

- Supports multiple VPN protocols to ensure secure data transmission
- Supports cellular, wired and wireless access
- Supports simultaneous 4G/3G/2G, Wi-Fi, Ethernet, WLAN wired multi-network access
- High performance processor for data optimization and real-time response

## Solution



R9505 series industrial router products, support mobile cellular, Wi-Fi, wired network and other access methods. Remote configuration and management through device management cloud platform, visualization and remote operation and maintenance management system solutions, widely used in smart power, smart agriculture, intelligent transportation, smart medical, smart factory, smart water conservancy, smart environmental protection, smart city, industrial control and other fields.

## Specification

### R9505 Series

	R9505-FS
Specification name	Hardware specification
CPU	Industrial grade 32-bit
DRAM capacity	64MB (expandable up to 128MB)
FLASH capacity	16MB (expandable up to 32MB)
Operating system	Deep customization based on Linux
4G	FDD-LTE:B1/B3/B5/B8 TDD-LTE:B34/B38/B39/B40/B41
3G	WCDMA:B1/B5/B8 TD-SCDMA:B34/B39 EVDO:800MHz CDMA2000
GSM	EDGE/GPRS/GSM:1800MHz/900MHz
SIM/UIM interface	Supports 1.8V/3V SIM/UIM Built-in 15KV ESD protection 1 Drawer cardholder
Industrial serial interface	1 RS232&RS485 (with option RS232 or RS485)
Antenna interface	2 external antenna connections, characteristic impedance 50 ohms, SMA negative (1 4G antenna, 1 4G antenna or Wi-Fi antenna optional)
Ethernet interface	1 WAN/LAN 10/100Mbit/s adaptive, built-in 1.5KV electromagnetic isolation protection, default WAN, configurable as LAN 1 LAN 10/100Mbit/s adaptive, built-in 1.5KV electromagnetic isolation protection
Indicator light	1 PWR Power Indicator 1 SYS system indicator 1 LAN Local Area Network indicator 1 NET IoT indicator 1 WAN Wide Area Network indicator 1 VPN Virtual Private Network indicator
Power interface	Terminal power supply with built-in anti-reverse connection protection to avoid damage to the equipment by wrong positive and negative connections
Real-time clock	Built-in RTC, battery powered
Standard power supply	DC12V/1A, supports overload protection, reverse connection protection
Reset button	The Reset button can be used to restore the device's parameter configuration to the factory default values
Scope of electricity supply	+6~35VDC (DC model)

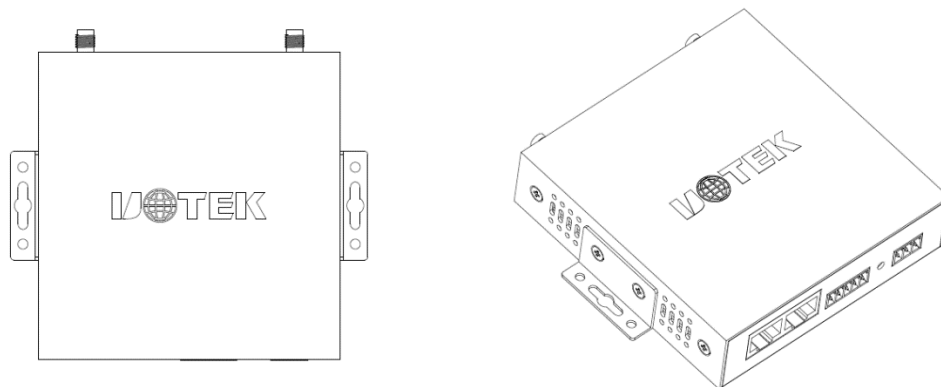
Product size	LxWxH=98x100x25mm (without antenna and mountings)
Idle current	130mA@12VDC
Average current	190mA@12VDC
Peak current	240mA@12VDC
Max. power consumption	2.88W
Ambient temperature and humidity	Storage temperature: -40~85°C Operating temperature: -30~75°C Relative humidity: 5 ~ 95% (no condensing)
Weight	315g
Housing	Metal housing design, protection level up to IP30
Mounting method	Wall-mounted or Rail-mounted (optional)

#### R9505 Series

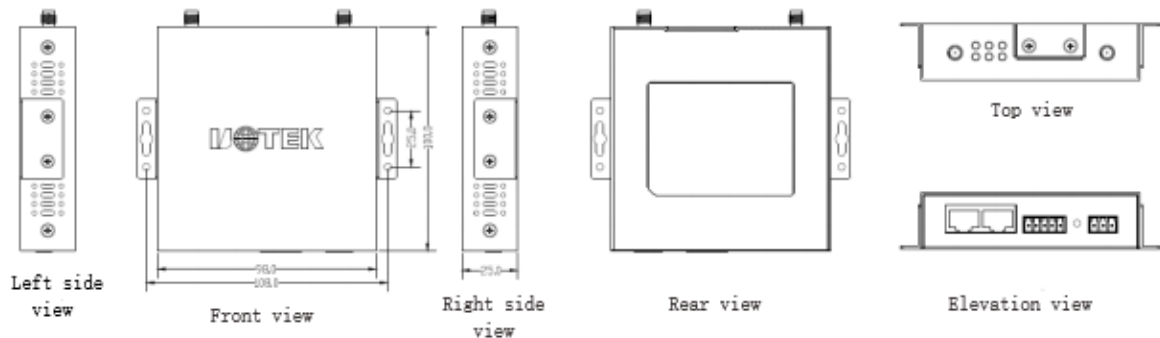
	R9505-FS
Specification name	Software specification
PPPoE certification	PAP/CHAP/MS-CHAP/MS-CHAPV2
Network Protocol	Support ARP,Ethernet LAN protocols support static IP, DHCP, PPPoE protocols
VLAN	Support VLAN management
Network access	APN, VPDN
IP Application	Ping,Traceroute,DHCP Server/Client,DNSRelay,DynamicDNS,Telnet,SSH,HTTP,HTTPS,TFTP,FTP,SFTP,NAT
IP Routing	Dynamic routing, static routing
Link detection	TCP/Ping heartbeat detection, VPN link detection, and support for automatic disconnection and reconnection to ensure that the device is "always on"
Link backup	Link switching for cellular networks, Wi-Fi and wired Ethernet
Built-in watchdog	Supports self-recovery of equipment failures to ensure stable equipment operation
Qos	Upstream and downstream bandwidth limits
VPN	OpenVPN, IPsec, L2TP/PPTP, N2N, GRE
DTU	Built-in software DTU function
Firewall	Support NAT, PAT, DMZ port mapping, IP, port and MAC filtering
Network Security	Support for administrative user hierarchy: administrator, maintainer
Alarm events	System and application logs

WLAN	Supports IEEE 802.11n b/g/n AP, Client working mode System open, shared key, WPA/WPA2 authentication WEP/TKIP/AES encryption Portal access authentication
Timed task management	Support for setting timed reboots
SNMP	SNMP v1/v2
Traffic statistics	Real-time traffic, monthly traffic statistics, traffic limit setting
Management and maintenance	Support Web management Telnet and SSH terminals System status monitoring NTP client with support for network synchronization of device system clocks Support for import and export of configuration files Support for local and remote firmware upgrades, saving manpower and resources Network tools: Ping, Tracert Support Utek Device Management Cloud device management cloud platform, batch operation, centralized management

## Appearance



## Dimension



Unit: mm  
Tolerance: ±1  
Projection view: third corner

LxWxH=98x100x25mm

## Ordering

### R9505 Series

Model	<F>Communication Types & Modules	<W>WLAN	<S> Serial port type
R9505-FS	FDD-LTE:B1/B3/B5/B8 TDD-LTE:B34/B38/B39/B40/B41 WCDMA:B1/B5/B8 TD-SCDMA:B34/B39 EVDO:800MHz CDMA2000 EDGE/GPRS/GSM:1800MHz/900MHz	Wi-Fi<optional>	1*RS232、 1*RS485