Four-Faith

4G Industrial Router

F-R200



GPS | Dual-SIM | VPN | 4G | RS232 | RS485 | 2.4G&5.8G WIFI | Din-Rail

Introduction

F-R200 is an intelligent cellular router designed for industrial applications requiring faultless connectivity. It provides a secure, reliable, real-time, remote connectivity for SCADA, distribution management systems, metering etc. Software-defined, multi-carrier networking, dual SIM models, 802.11n/802.11ac and global 2.5G/3G/HSPA+/LTE options make it easy to get connected. With DIN-rail mounting, wide operating temperature range, and IP30 metal housing, F-R200 is a convenient yet reliable solution for any industrial wireless applications.

Industrial-grade Design

- High-performance industrial-grade wireless module
- High-performance industrial-grade 32-bit communication processor
- Using metal shell, protection grade IP30
- Wide power input range 5~36V

Stability & Reliability

- WDT Watchdog design
- Complete anti-dropping mechanism to ensure that the data terminal is always online
- Built-in 1.5KV electromagnetic isolation protection for Ethernet interface
- RS232/RS485/RS422 (Optional) interface power and data isolation
- SIM/UIM card interface built-in 15KV ESD protection
- Lightning protection of antenna interface (Optional)

Standard & Convenience

- Standard RS232/RS485/RS422 (Optional), Ethernet and WIFI Interface
- Provide standard wired WAN port (support standard PPPOE protocol)
- Can be directly connected to ADSL devices
- Provide central management software to facilitate devices management (Optional)
- Multiple working mode options
- Configuration and maintenance interface
- Support local and remote WEB mode or CLI mode

4G Industrial Router F-R200



High Performance

- Multiple WAN connection methods, include Static IP/DHCP/PPPOE/DHCP-4G
- Support LTE/EVDO and wired WAN dual link backup（Optional）
- Support VPN client: PPTP/L2TP/IPSEC (Only VPN version can support)
- Support VPN server: PPTP/L2TP/IPSEC (Only VPN version can support)
- Remote management SYSLOG/SNMP/TELNET/SSH/HTTPS
- Support local upgrade and remote upgrade
- Import and export configuration files
- NTP / Build-in RTC
- Support DDNS
- Support VLAN，MAC address clone
- WIFI Support 802.11b/g/n/ac. Support AP/AP Client/Bridge mode (Optional)
- Support Private APN/VPDN
- Support APN/VPDN
- Support DHCP server and DHCP client, DDNS, firewall, NAT, DMZ, QOS
- Support TCP/IP, UDP, FTP (Optional), HTTP and other network protocols
- Support SPI firewall，VPN pass through, ACL, URL filter
- Traffic statistics, real-time display of data transmission rate and, etc.

Product Specification

Cellular Specification	
Items	**Contents**
Frequency	Support LTE FDD 2600/2100/1800/900/800MHz，700/1700/2100MHz (Optional) Support DC-HSPA+/HSPA+/HSDPA/HSUPA/UMTS 850/900/2100MHz, 800/850/1900/2100MHz (Optional) Support EDGE/GPRS/GSM 850/900/1800/1900MHz Support GPRS CLASS 10 Support EDGE CLASS 12
Bandwidth	LTE FDD：Downlink 100 Mbps, Uplink 50 Mbps DC-HSPA+：Downlink 42 Mbps, Uplink 5.76 Mbps HSPA+：Downlink 21 Mbps, Uplink 5.76 Mbps HSDPA：Downlink 7.2 Mbps, HSUPA：Uplink 5.76 Mbps UMTS：384Kbps
Power	< 23 dBm
Sensitivity	<-97 dBm

4G Industrial Router F-R200



WIFI	
Items	**Contents**
Frequency	Support IEEE802.11b/g/n, 2.4G, support AP mode, Station mode (Optional) Support IEEE802.11ac, 5.8G, support AP mode, Station mode (Optional)
Bandwidth	IEEE802.11b/g：Maximum speed rate up to 54 Mbps IEEE802.11n：Maximum speed rate up to 150 Mbps IEEE802.11ac：Maximum speed rate up to 390 Mbps
Security Encryption	Support WEP, WPA, WPA2 and other encryption methods, WPS (Optional)
Power	26dBm (11b), 21.5dBm (11g), 20dBm (11n), 16dBm (11ac)
Sensitivity	<-72dBm@54Mbps
Hardware	
Items	**Contents**
CPU	Industrial-grade 32-bit communication processor
FLASH	32MB, Extensible to 64MB
DDR3	512MB
TF	8GB/32GB (Optional)
Interfaces	
Items	**Contents**
WAN	1 x 10/100/1000M Ethernet (RJ45) Auto MDI/MDIX, Built-in 1.5KV electromagnetic isolation protection
LAN	4 x 10/100/1000M Ethernet (RJ45) Auto MDI/MDIX, Built-in 1.5KV electromagnetic isolation protection
Serial	1 x RS232(RS422/RS485), Built-in 1.5KV electromagnetic isolation protection Data bit：5, 6, 7, 8 Stop bit：1, 1.5 (Optional), 2 Calibration: null, even, odd, SPACE (Optional) and MARK (Optional) Baud rate：2400~115200bits/s
Indicators	"PWR", "SYS", "WIFI", "SIM", "Online", "Signal Strength"
I/O Port	6-pin 3.5mm wiring terminal, 2 inputs, 1 output, 1 relay; Controlled by Modbus protocol Input high level: 5 to 30 VDC Input low level: 0 to 3 VDC Load current: 50mA @ 30VDC Relay load 1A 250V AC/ 30V DC
Antenna	Cellular：2 standard SMA female antenna interfaces, characteristic impedance 50 ohms WIFI：1 standard SMA male antenna interfaces, characteristic impedance 50 ohms GPS: 1 calibrated SMA male antenna interface, characteristic impedance 50 ohms

4G Industrial Router F-R200

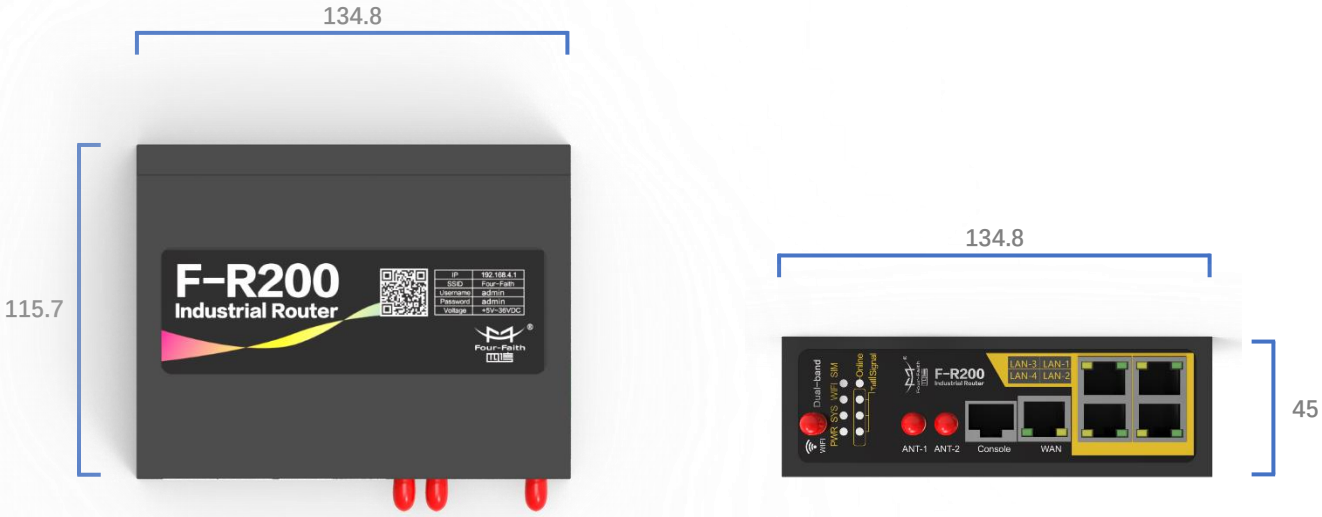


Items	Contents
SIM/UIM	Standard drawer type user card interface Support 1.8V/3V SIM/UIM card, built-in 15KV ESD protection
Power	2 PINS terminal power socket, built-in power reverse protection
Reset button	Restore the router's parameter configuration to factory values
Power Supply	
Items	**Contents**
Standard	DC 12V/1.5A
Range	DC 5 ~36V
Consumption	<700mA (12V)
Physical Properties	
Items	**Contents**
Shell	Metal shell, protection grade IP30
Size	134.8 x 115.7 x 45mm (Does not include antenna and mounting parts)
Weight	520 g
GPS	
Items	**Contents**
GPS Module	Industrial GPS module (Optional Beidou module)
Receiver Type	50 channels GPSL1 (1575.42MHz) C/A code Support WAAS and EGNOS, MSAS, GAGAN
Maximum Update Rate	5Hz
Positioning Accuracy	Positioning：2.5m CPE SBAS：2.0m CPE
Sensitivity	Tracking: -160 dBm Re-capture: -160 dBm Cold start: -146 dBm
Others	
Items	**Contents**
Operating Temperature	-35~+75ºC（-31~+167℉）
Storage Temperature	-40~+85ºC（-40~+185℉）
Relative Humidity	95% (No condensation)

4G Industrial Router F-R200



Dimension (mm)



Order Information

Models	Description
F-R200-FL	F-R200-FL Cellular (LTE/WCDMA), WIFI, SIM*1 (Expandable to 2), I/O (2*DI, 1*DO, 1*Relay), GPS(Optional)
F-R200-FL-SIM2	Cellular (LTE/WCDMA, Single-Module), WIFI, SIM*2, I/O (2*DI, 1*DO, 1*Relay), GPS(Optional)
F-R200-FL/FL-SIM2	Cellular (LTE/WCDMA, Dual-Module), WIFI, SIM*2, I/O (2*DI, 1*DO, 1*Relay), GPS(Optional)