

## Four-Faith Industrial Router

# F-R100

## M2M 3G/4G Industrial Router



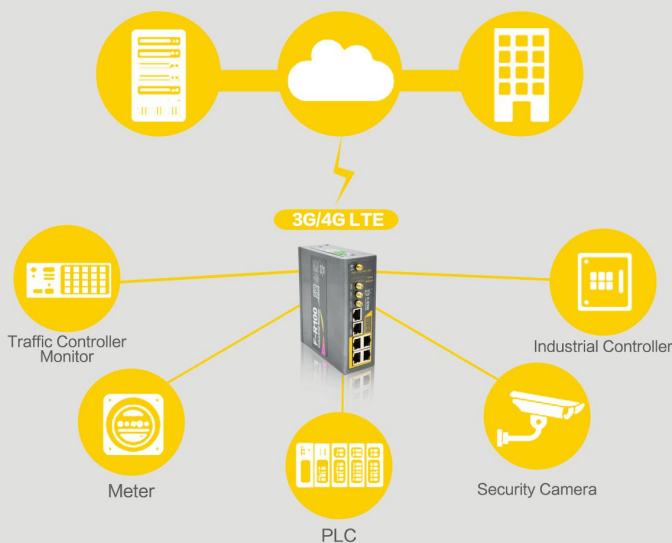
### Overview

Four-Faith F-R100 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 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, the F-R100 is a convenient yet reliable solution for any industrial wireless applications.

### Benefits

- **Advanced Failover:** Maximizes uptime by seamlessly switching between the multiple Internet interfaces (cellular, WAN, WIFI, dual-SIM).
- **Multiple Tunneling Schemes:** Secure your data using a variety of VPN tunneling schemes, including IPSec, L2TP, PPTP, OpenVPN and GRE.
- **Flexible WIFI:** 802.11 b/g/n, configurable WIFI as WAN or access point, WIFI Security (WEP / WPA / WPA2 Mixed Mode) and multiple SSID.
- **Ethernet, serial and I/O for connecting diverse field assets.**
- **Four-Faith Remote Management** provides mass configuration, device management, OTA update, and troubleshooting tools.

### Application Example



# Packing List



F-R100



Cellular Antenna



WIFI Antenna



Power



Terminal Block



Line

## Specifications

### CELLULAR WAN

- Supported Frequency Bands
  - LTE: B1, B2, B3, B4, B5, B7, B8, B20, B28
  - WCDMA: 2100(B1), 1900(B2), 850(B5)
  - EV-DO/CDMA: 800(BC0)
  - GSM/GPRS/EDGE: 850/900/1800/1900
- Automatic SIM based network operator switching

### HOST INTERFACES

- 10/100 Base-T RJ45 Ethernet port
- RS-232 or RS-485 Serial Console Port
- 3 SMA antenna connectors (WI-FI and Double-cellular)
- Active GPS antenna support (option)
- (6) pin 3.5mm terminal block

### INPUT/OUTPUT

- (6) pin 3.5mm terminal block.
- (2) DI, (1) DO, (1) Relay.
- Input ON Voltage: 5 to 30 VDC.
- Input OFF Voltage: 0 to 3 VDC.
- Output < 50mA @ 30VDC.
- Relay: 1A 250VAC/30VDC

### LAN

- DNS, DNS Proxy
- DHCP Server
- IP Passthrough (option)
- VLAN
- Host Interface Watchdog
- PPPoE

### SERIAL

- TCP/UDP PAD Mode
- Modbus (ASCII, DTU, Variable)
- PPP
- Reverse Telnet

### EVENTS ENGINE (Option)

- Custom event triggers and reports.
- Configurable interface, no programming.
- Event Types: Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature.
- Report Types: TCP, UDP, SMS, SNMP Trap, HTTP, JSON.
- Event Actions: Drive Relay Output.

### WIFI

- IEEE802.11 b/g/n, AP and client mode.
- Adjustable output power (Max: 20dBm)
- Access point for up to 30 clients
- Simultaneous access point/client mode
- WEP, WPA-PSK, WPA2-PSK etc. Security

### NETWORK AND ROUTING

- Network Address Translation (NAT)
- Port Forwarding
- Host Port Routing
- VRRP
- Reliable Static Route
- Dynamic DNS

### VPN

- IPSec, GRE, and OPENVPN Client
- Up to 10 concurrent tunnels
- Split Tunnel
- Dead Peer Detection (DPD)
- Multiple Subnets
- VPN Failover

### SECURITY

- Remote Authentication
- DMZ
- Inbound and Outbound Port filtering
- Inbound and Outbound Trusted IP
- MAC Address Filtering.

### GPS (Option)

- Antenna Interface: SMA Female, 50 ohms impedance
- Tracking Sensitivity: better than -144 dBm
- Horizontal position accuracy: 2.5 m
- Time-To-First-Fix: 29 s
- Protocol: NMEA-0183 V2.3

### OPERATION ENVIRONMENT

- Operating Temperature: -35°C to +75°C / -31°F to +167°F
- Storage Temperature: -40°C to 85°C / -40°F to 185°F
- Humidity: 90% RH @ 60°C

# Specifications

## MANAGEMENT SERVICE

- Secure cloud-based device management application
- Remote provisioning
- Gateway configuration and template management
- Configurable monitoring and alerting
- Software and radio module firmware updates
- Auto configuration

## MANAGEMENT INTERFACES

- Web-Based User Interface
- Device Configuration Templates
- Software and radio module firmware updates
- AT Command Line Interface (Telnet/SSH/Serial)
- SMS Commands (Option)
- SNMP

## DIMENSIONS

- Housing & Weight: Metal, 520g
- Dimension: (L x W x H): 133 x 115.7 x 45 mm
- Installation: 34.6 mm Din-Rail or wall mounting or desktop

## Selection and Ordering Data

Model No.	Description
F-R100-W	Cellular (WCDMA/HSDPA/HSUPA/HSPA+), WIFI, SIM*1(Expandable to 2), I/O(2*DI, 1*DO, 1*Relay.) , GPS(Option)
F-R100-FL	Cellular (LTE/WCDMA), WIFI, SIM*1(Expandable to 2), I/O(2*DI, 1*DO, 1*Relay.) , GPS(Option)
F-R100-L	Cellular (LTE), WIFI, SIM*1(Expandable to 2), I/O(2*DI, 1*DO, 1*Relay.) , GPS(Option)
F-R100-W/W	Cellular (WCDMA/HSDPA/HSUPA/HSPA+, Dual-Module), WIFI, SIM*2, I/O(2*DI, 1*DO, 1*Relay.) , GPS(Option)
F-R100-FL/FL	Cellular (LTE/WCDMA, Dual-Module), WIFI, SIM*2, I/O(2*DI, 1*DO, 1*Relay.) , GPS(Option)
F-R100-L/L	Cellular (LTE, Dual-Module), WIFI, SIM*2, I/O(2*DI, 1*DO, 1*Relay.) , GPS(Option)