![Four-Faith logo]

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.

Application Example

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.
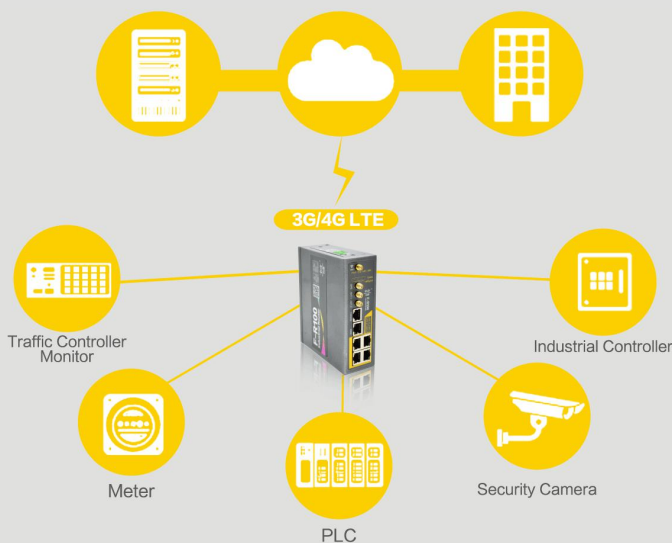
Packing List

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: 26dBm)
	• 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)