

Four-Faith

5G/4G Edge Gateway

FGI100 Lite



Introduction

The FGI100-Lite series is a wireless edge gateway launched by Four-Faith for the Industrial IoT. It provides users with secure, reliable, and uninterrupted internet access through 4G/5G wireless networks and broadband services. Supporting multiple mainstream industrial protocols, it connects to PLCs, smart meters, and other terminal devices via RS232/RS485 and Ethernet ports. Its main functions include uplink and downlink data processing, data acquisition, protocol conversion, edge computing, programmability, data processing, cloud integration, remote control, and device management.

Industrial-grade Design

- High-performance industrial-grade wireless module
- Adopts a high-performance industrial-grade ARM processor
- Metal casing, protection level is IP30
- Wide power input DC 9~36V

Stability & Reliability

- WDT Watchdog design to ensure system stability
- Adopt a complete anti-drop mechanism to ensure that the data terminal is always online
- Built-in 1.5KV electromagnetic isolation protection for Ethernet interface
- RS232/RS485 interface power and data isolation, with CSA, UL, and IEC standards
- SIM/UIM card interface built-in 15KV ESD protection
- Built-in reverse phase protection and over voltage protection for power interface

Standard & Convenience

- Provide standard RS232, RS485, Ethernet and WIFI interfaces
- Intelligent data terminal, can enter data transmission state after power on
- Convenient system configuration and maintenance interface
- Supports DIN rail and wall mounted installation

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High Performance

- Supports FRP intranet penetration
- Supports Ethernet link status detection, speed reporting, and latency reporting
- Supports intelligent dual-link backup switching between 4G/5G and wired WAN
- Supports VPN: PPTP/L2TP/GRE/IPSec/OpenVPN
- Supports remote management: SYSLOG, SNMP, TELNET, SSHD, HTTPS
- Supports SPI firewall, VPN passthrough, access control, and URL filtering
- Wi-Fi supports multiple encryption methods: WEP, WPA, WPA2, and MAC address filtering
- SIM/UIM card interface with built-in 15KV ESD protection
- Supports frequency locking, cell locking, EOIP, bridge mode, VXLAN, virtual IP, GRETAP
- Supports multiple DHCP servers, MAC address binding, DDNS, firewall, NAT, DMZ host
- Supports VLAN, MAC address cloning, PPPoE server
- Supports various online/offline triggering modes, including serial and network data
- Supports Four-Faith Cloud integration for easier O&M
- Supports IoT platform connectivity via MQTT+SSL/TLS, HTTPS, TCP/UDP
- Supports 100+ protocols including Modbus, Mitsubishi, OPC UA, ensuring broad device compatibility.

Product Specification

Cellular Specification			
Model	**FGI100-Lite-5R**	**FGI100-Lite-4G**	**FGI100-Lite-CAT1**
Items	**Contents**		
Standard and Frequency	**5G NR:** n1/n3/n5/n8/n28/n41/n78/n79 **LTE FDD:** B1/B3/B5/B8 **LTE TDD:** B34/B38/B39/B40/B41	Supports all networks: LTE-FDD, LTE-TDD, EVDO, WCDMA, TD-SCDMA, CDMA1X, GPRS/EDGE	**LTE-FDD:** B1/3/5/8 **LTE-TDD:** B34/38/39/40/41 (full bands)
	Note: Different modules can be selected based on customer requirements to support various network standards.		
Theoretical Bandwidth	**5G NR**：downlink 226Mbps, uplink 200Mbps **LTE**：downlink 200Mbps, uplink 100Mbps	**LTE-FDD**：downlink 150Mbps, uplink 50Mbps **LTE-TDD**：downlink 130Mbps, uplink 35Mbps	**LTE-FDD**：downlink 10.3Mbps, uplink 5.1Mbps **LTE-TDD**：downlink 9.1Mbps, uplink 3.1Mbps
Hardware System			
Items	**Contents**		
CPU	ARM Triple Cortex-A7@1.2GHz		
FLASH	128MB		
DDR3	128MB		

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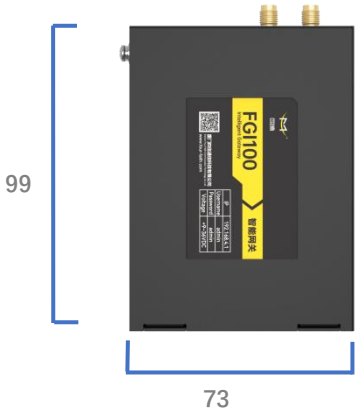


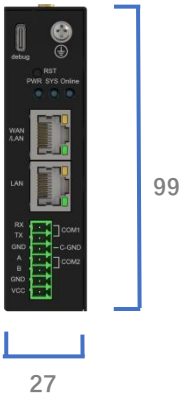
Indicators	
Model	FGI100-Lite
Items	Contents
LED	PWR, SYS, Online
Power Supply	
Items	Contents
Standard	DC 12V/1.5A
Range	DC 9~36V
Consumption	<3W (LTE)
Interfaces	
Items	Contents
WAN/LAN	1 x 10/100M Ethernet (RJ45)
LAN	1 x 10/100M Ethernet (RJ45)
Serial	Default: 1×RS232 + 1×RS485, industrial terminals Note: The 2 serial ports can be configured as RS232/RS485
SIM Card	2 x Nano SIM
Antenna	5G Redcap/4G: 2 standard SMA female antenna interfaces, characteristic impedance 50 ohms
Reset Button	1 × pinhole reset button
Physical Properties	
Items	Contents
Shell	Metal shell, protection level IP30
Size	99x73x27 mm (Excluding antennas and mounts)
Weight	247g
Operating Temperature	-35~+75℃ (-31~+167℉)
Storage Temperature	-40~+85℃ (-40~+185℉)
Relative Humidity	95% (No condensation)
Installation	Wall-mount, DIN-rail

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Dimension (mm)





Order Information

Models	Description
FGI100-4C	4G Cat.1, SIM*2(or eSIM)
FGI100-4G	4G LTE, SIM*2(or eSIM)
FGI100-5R	5G RedCap, SIM*2(or eSIM)