Four-Faith

5G Industrial Router

FNR410-00W6



5G | 5G Redcap | Dual-SIM | VPN | IP66 | RS485 | WiFi 6 | 5G LAN

Introduction

The FNR410-00W6 is a 5G NR IoT wireless communication router that leverages public 4G/5G/5G Redcap networks to provide users with wireless long-distance, large-data transmission capabilities. This product features a high-performance industrial-grade 32-bit communication processor and industrial-grade wireless module, with an embedded real-time operating system as its software support platform. It offers 1 RS232 port, 1 RS485 port, and 3 Gigabit Ethernet ports, enabling simultaneous connections to serial devices, Ethernet devices, and Wi-Fi devices. It supports transparent data transmission, Wi-Fi 6, and routing functionality.

Industrial-grade Design

- High-performance industrial-grade wireless module
- High-performance industrial-grade 32-bit communication processor
- Metal shell, protection grade IP66. Metal housing and system safety isolation
- Wide power input DC 9~36V
- Waterproof aviation connectors enable simple wiring

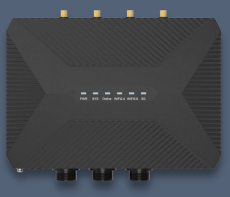
Stability & Reliability

- 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, in line 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

- Standard RS232, RS485, Ethernet and WIFI Interface
- Intelligent data terminal, can enter data transmission state after power on
- Convenient system configuration and maintenance interface (WEB/CLI)
- Supports wall-mounted and pole-mounted installation

5G Industrial Router FNR410



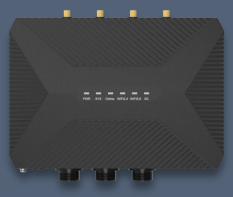
High Performance

- Support 5G LAN
- Input power failure alarm supported
- Device temperature anomaly alarm supported
- FRP intranet penetration supported
- POE+ power reception supported
- Network port status detection, rate reporting, and latency reporting supported
- 4G/5G and wired WAN dual-link intelligent failover supported
- SIM/UIM card interface with built-in 15KV ESD protection
- Supports VPN protocols: PPTP/L2TP/GRE/IPSEC/OPENVPN
- Remote management via SYSLOG, SNMP, TELNET, SSHD, HTTPS
- Supports SPI firewall, VPN passthrough, access control, URL filtering
- Wi-Fi encryption options: WEP, WPA, WPA2; MAC address filtering supported
- SIM/UIM card interface with 15KV ESD protection
- Frequency locking, cell locking, EOIP, bridge mode, VxLAN, virtual IP, GRETAP supported
- Multiple DHCP servers, DHCP-MAC binding, DDNS, firewall, NAT, DMZ host supported
- Supports VLAN, MAC address cloning, PPPoE server
- Multiple online/offline trigger modes: serial/network data triggers
- Integrated with Four-Faith Cloud for simplified operation and maintenance

Product Specification

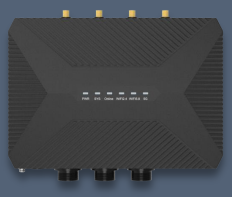
Cellular Specification		
Product	**5G**	**5G Redcap**
Items	**Contents**	
Standard and Frequency	**5G NR:** n1/n2/n3/n5/n7/n8/n20/n28/n41/n66/n71/n77/n78/n79 **LTE:** B1/B2/B3/B4(66)/B5(18/19/26)/B7/B8/B12(17)/B13/B14/B20/B25/B26/B28/B29/B30/B38/B39/B40/B41/B42/B43/ B46/ B48/B71	**5G NR:** n1/n3/n5/n8/n28/n41/n78/n79 **LTE-FDD:** B1/B3/B5/B8 **LTE-TDD:** B34/B38/B39/B40/B41
	Note: Band support may vary based on the selected module region.	
Theoretical Bandwidth	**5G NR:** DL 3.4 Gbps; UL 350 Mbps **LTE CAT20:** DL 2.0 Gbps; UL 150 Mbps **HSPA+:** DL 42 Mbps; UL 5.76 Mbps	**5G NR:** DL 226 Mbps; UL 120 Mbps **LTE:** DL 200 Mbps; UL 100 Mbps

5G Industrial Router FNR410



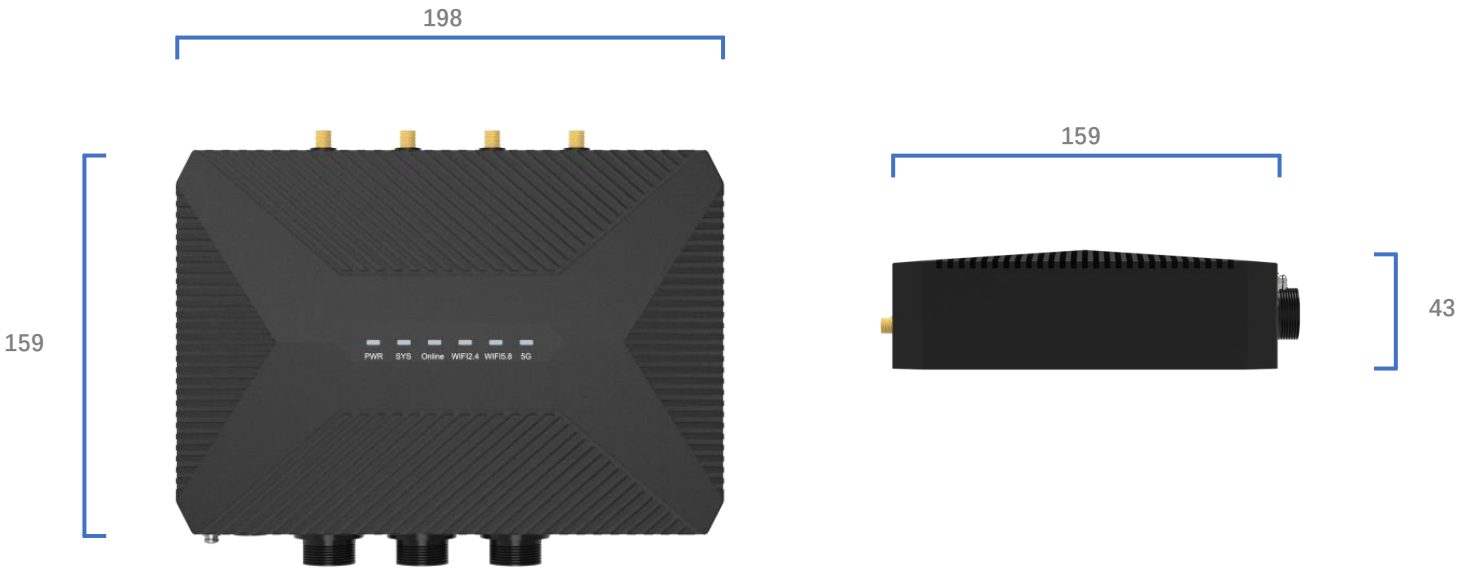
Hardware System		
Product	5G	5G Redcap
Items	Contents	
CPU	CPU@880MHz, Dual Core	
Flash	128MB	
DDR3	512MB	
WIFI		
Items	Contents	
Wi-Fi Protocol	IEEE802.11 a/b/g/n/ac/ax (WIFI 6)	
Frequency Band	2.4GHz+5.8GHz	
Theoretical Max Bandwidth	2.4GHz 2x2MIMO 11ax (WIFI 6), 0.573 Gbps 5.8GHz 2x2MIMO 11ax (WIFI 6), 1.2 Gbps	
Frequency Band	20MHz, 40MHz, 80MHz	
Mesh Networking	Supports Mesh Networking with Four-Faith CPE/Router devices	
Power Supply		
Items	Contents	
Power Standard	DC 12V/1.5A	
Range	DC 9~36V	
Operate Current	< 1.1A (12V)	
Interfaces		
Items	Contents	
Waterproof Ethernet Ports	**Port 1:** 1 x 1G Ethernet interface (RJ45), supports auto MDI/MDIX, default LAN (configurable as WAN), and POE+ power reception. **Ports 2/3:** 2 x 1G Ethernet interfaces (RJ45), support auto MDI/MDIX, for LAN use only.	
Aviation Connector	**SF13/P7 Aviation Female Connector:** Includes serial port and power connections, compatible with SP13/P7 male connector for 1-to-3 power/serial cable.	
	Serial Port: Terminal interface with 1 RS232 (optional RS485) and 1 RS485, equipped with 15KV ESD protection.	
	Power: DC power connector with built-in reverse polarity protection	
Indicators	PWR, SYS, Online, WiFi 2.4G, WiFi 5.8G, 5G (tri-color LED)	
SIM Card	2 x standard pluggable SIM card slots (compatible with eSIM)	
WIFI Antenna	2 standard SMA male antenna connectors with 50Ω impedance.	
Cellular Antenna	4 standard SMA female antenna connectors with 50Ω impedance	2 standard SMA female antenna connectors with 50Ω impedance
Reset	Restores configuration to factory settings	

5G Industrial Router FNR410



Physical Characteristic		
Product	5G	5G Redcap
Items	Contents	
Casing	Metal casing IP66	
Dimension	198x159x43mm (Excludes antennas and accessories)	
Weight	1195g	
Operate Temperature	-35~+75ºC	
Storage Temperature	-40~+85ºC	
Humidity	100% (No condensation)	

Dimension (mm)



Order Information

Model	Description
FNR410-00W6-NR	5G NR, 2.4G/5.8G WIFI, SIM*2(or eSIM)
FNR410-00W6-RedCap	4G, 2.4G/5.8G WIFI, SIM*2(or eSIM)