

Four-Faith

5G+5G Industrial Router

FNR500

5G | 4G | PLUG&PLAY | VPN | Dual-SIM | USB | WiFi 6 WIFI 6 | Micro SD Card

Introduction

The FNR500 is a dual SIM, dual-module 5G IoT wireless communication router, utilizing public 3G/4G/5G networks for long-distance data transmission. It features a high-performance industrial-grade 32-bit processor and wireless module, operating on an embedded real-time OS. With four Gigabit Ethernet LAN ports, one Gigabit Ethernet WAN/LAN port, USB, and console ports, it connects both Ethernet and Wi-Fi devices for transparent data transfer. Supporting features like WIFI6, VxLAN, and dual-card dual-mode (5G network), it enables smart dual-link switching and routing.

Industrial-grade Design

- High-performance industrial-grade wireless module
- High-performance industrial-grade 32-bit communication processor
- Metal shell, protection grade IP30. Metal housing and system safety isolation
- 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, 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
- Standard WAN port (support standard PPPOE), can directly connected to ADSL device
- Intelligent data terminal, can enter data transmission state after power on
- Easy to use, flexible, multiple working mode options
- Convenient system configuration and maintenance interface (WEB/CLI)
- Support wall-mounted installation

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High Performance

- Support 5G LAN
- Intelligent dual 5G switching
- Implements smart load balancing for efficient data traffic distribution
- Intelligent switching backup for 3G/4G/5G and wired WAN dual links
- Supports VPN, PPTP/L2TP/IPSEC/GRE/OPENVPN
- Enables remote management with SYSLOG, SNMP, TELNET, SSHD, HTTPS
- Includes SPI firewall, VPN passthrough, access control, and URL filtering
- Various encryption methods supported for WiFi, including WEP, WPA, WPA2, etc.
- SIM/UIM card interface with built-in 15KV ESD protection
- Supports frequency & cell locking, EOIP, bridge mode, VxLAN, virtual IP, etc.
- Multiple DHCP servers, DHCP binding by MAC address, DDNS, firewall, NAT, etc.
- VLAN support, MAC address cloning, and PPPoE server
- Offers various online/offline trigger modes, including SMS, phone ringing, etc.

Product Specification

Cellular Specification	
Model	FNR500
Items	Contents
Module	Industrial wireless module
Standard and Frequency	**5G NR NSA:** n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 **5G NR SA:** n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 **LTE-FDD:** B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 **LTE-TDD:** B34/B38/39/B40/B41/B42/B43/B48 **WCDMA:** B1/B2/B3/B4/B5/B6/B8/B19 **Note: Band support may vary based on the selected module region.**
Theoretical Bandwidth	**5G SA Sub-6:** DL 2.0 Gbps; UL 766 Mbps **5G NR ENDC:** DL 2.2 Gbps; UL 458 Mbps **LTE:** DL 487 Mbps; UL 150 Mbps **WCDMA:** DL 42 Mbps; UL 11 Mbps

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Hardware System	
Model	FNR500
Items	Contents
CPU	CPU@880MHz, dual core
TF	8GB EMMC
DDR3	512MB
Flash	32MB
WIFI	WIFI 6 Chip
Cellular Module	Dual cellular module
Basic Function	
Items	Contents
VxLAN	Support
Dual-SIM Dual-Module	Support
VPN	PPTP/L2TP/IPSEC/GRE/OPENVPN
Load Balancing	Support
Power Supply	
Items	Contents
Power Standard	DC 12V/1.5A
Range	DC 9~36V
Operate Current	< 1.1A (12V)
WIFI	
Items	Contents
Wi-Fi Protocol	IEEE802.11 a/b/g/n/ac/ax (WIFI 6)
Frequency Band	2.4GHz+5GHz
Theoretical Max	2.4GHz 2x2MIMO 11ax (WIFI 6), 0.573 Gbps
Bandwidth	5.8GHz 2x2MIMO 11ax (WIFI 6), 1.2 Gbps
Frequency Band	20MHz, 40MHz, 80MHz
Mesh Networking	Supports Mesh Networking with Four-Faith CPE/IDU devices
Interfaces	
Items	Contents
WAN	1 x 1G Ethernet (RJ45), Adaptive MDI/MDIX
LAN	4 x 1G Ethernet (RJ45), Adaptive MDI/MDIX
USB	1 x USB 2.0
Indicators	Signal, Online1, Online2, WIFI, SYS, PWR
SIM	Standard drawer-type SIM card interface, compatible with patch eSIM
Power	Three-core DC locomotive power socket with built-in power inversion protection
Reset	Restoring the parameter configuration to the factory default value

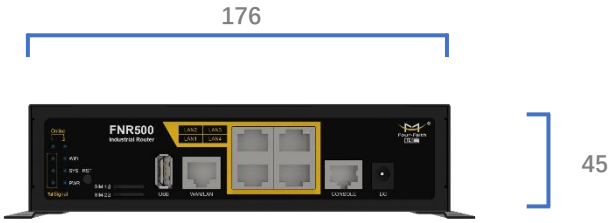
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Physical Characteristic	
Model	FNR500
Items	Contents
Casing	Metal casing IP30
Dimension	176x124.5x45mm
Weight	800g
Operate Temperature	-35~+75℃
Storage Temperature	-40~+85℃
Humidity	95% (No condensation)

Dimension (mm)





Order Information

Model	Description
FNR500	5G NR, 2.4G/5.8G WIFI, SIM*2(or eSIM)
FNR500-4G	4G, 2.4G/5.8G WIFI, SIM*2(or eSIM)