

5G Industrial Router

F-NR100



Introduction

F-NR100 is a wireless communication router for the Internet of Things (IoT), it uses a high-performance industrial level 32-bit communication processor and wireless module, embedded with the real-time operating system as the software platform, and using 3G/4G/5G cellular network to provide users with wireless long-distance large data transmission function.



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 protocol), which can be directly connected to ADSL equipment
- ▶ 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, pole-mounted installation

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High Performance

- ▶ Multiple WAN connection methods, include static IP, DHCP, PPPOE, 3G/UMTS/4G/LTE, DHCP-4G/5G
- ▶ 3G/4G/5G and wired WAN dual link backup (optional)
- ▶ VPN client PPTP/L2TP/IPSEC (only available in VPN version)
- ▶ VPN sever PPTP/L2TP/IPSEC (only available in VPN version)
- ▶ Remote management SYSLOG/SNMP/TELNET/SSH/HTTPS
- ▶ Support local upgrade and remote upgrade, Import and export configuration files
- ▶ NTP / Built in RTC
- ▶ MAC address clone
- ▶ WIFI support 802.11b/g/n/ac, support WIFI AP /AP Client/bridge mode etc. (optional)
- ▶ WIFI support WEP/WPA/WPA2 encryption
- ▶ Support multiple online and offline trigger modes
- ▶ Support APN/VPDN
- ▶ Support DHCP server / DHCP client/DHCP binding MAC/DDNS/NAT/DMZ/QOS
- ▶ Support TCP/IP/UDP/FTP (Optional) /HTTP and other network protocols
- ▶ Support SPI firewall
- ▶ Support URL filter
- ▶ Support IPV6/IPV4
- ▶ Support MODBUS

Product Specification

Cellular Specification	
Items	Contents
Module	Industrial grade wireless module
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
Bandwidth	5G NR: DL 3.4Gbps, UL 350Mbps LTE Cat20: DL 2.0Gbps, UL 150Mbps HSPA+: DL 42Mbps, UL 5.76Mbps
Power	< 23dBm
Sensitivity	<-97dBm

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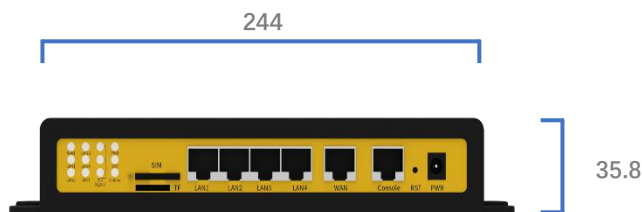
WIFI Specification	
Items	Contents
Frequency	IEEE802.11b/g/n, 2.4G, AP mode, Station mode (Option) IEEE802.11ac, 5.8G, AP mode, Station mode (Option)
Bandwidth	IEEE802.11b/g: 54Mbps IEEE802.11n: 300Mbps IEEE802.11ac: 866Mbps
Security	WEP, WPA, WPA2 encryption, WPS(optional)
Power	26dBm (11b), 21dBm (11ac/MCS7/HT40), 20dBm (11ac/MCS9/HT80)
Sensitive	<-72dBm@54Mbps
Hardware System	
Items	Contents
CPU	Industrial-grade 32-bit communication processor
FLASH	Nor flash 16MB NAND flash 128MB
DDR3	512MB
Interfaces	
Items	Contents
WAN	1 x 1000M ETH port, auto adapt MDI/MDIX, built in 1.5KV ESD
LAN	4 x 1000M ETH port, auto adapt MDI/MDIX, built in 1.5KV ESD 1 x RS232, Built in 15KV ESD: Data bit: 5, 6, 7, 8 Stop bit: 1, 1.5(optional), 2 check: NONE, ODD, EVEN, SPACE(optional) and MARK(optional) Baud rate: 2400~115200bits/s
Console	
Indicators	"PWR", "SYS", "2.4G", "5.8G", "Online", "Signal"
Antenna	Cellular: 4 x SMA female, characteristic impedance 50 ohms WIFI: 2 x SMA male, characteristic impedance 50 ohms
SIM/UIM	Standard drawer type(2 x SIM slot), 1.8V/3V SIM/UIM, 15KV ESD protection
Power	2.5mm DC interface built-in power reverse protection
TF card	Micro SD card interface
Reset Button	Through this button, the parameter configuration can be restored to the factory

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Power Supply	
Items	Contents
Standard	DC 12V/1.5A
Range	DC 9~36V
Consumption	<1.2A (12V)
Physical Properties	
Items	Contents
Shell	Metal shell, IP30
Size	244x135.5x35.8 mm (Does not include antenna and mounting parts)
Weight	980g
Others	
Items	Contents
Operating Temperature	-35~+75°C (-31~+167°F)
Storage Temperature	-40~+85°C (-40~+185°F)
Relative Humidity	95% (No condensation)

Dimension



Order Information

Models	Description
F-NR100	Cellular (5G NR), 2.4G/5G WIFI, SIM*1