Version	Class
V1.0.0	

F-NR100 Industrial Router Specifications

Instructions

F-NR100 is a wireless communication router for the Internet of Things. It uses public 3G / 4G/ 5G networks to provide users with wireless long-distance large data transmission functions.

This product uses a high-performance industrial-grade 32-bit communication processor and industrial-grade wireless module. It uses an embedded real-time operating system as the software support platform. It also provides 1 RS232 (or RS485), 4 Ethernet LAN, and 1 Ethernet WAN and 2 (4) WIFI interfaces, which can be connected to serial devices, Ethernet devices and WIFI devices at the same time.

This product has been widely used in the M2M industry in the IoT industry chain, such as smart grid, smart transportation, smart home, finance, mobile POS terminal, supply chain automation, industrial automation, smart building, fire protection, space exploration, agrculture, forestry, water affairs, coal mining, petrochemical and other fields.

Industrial-grade application design

◆ High-performance industrial-grade wireless module
◆ High-performance industrial-grade 32-bit communication processor
◆ Support low power consumption mode, timing online and offline mode
◆ Using metal case, protection grade IP30. Metal housing and system are safely isolated, especially suitable for industrial control field applications

Stable and reliable

◆ WDT watchdog design to ensure system stability
◆ Adopt a complete anti-drop mechanism to ensure that the data terminal is always online
◆ Ethernet interface with built-in 1.SKV electromagnetic isolation protection
◆ RS232/RS485 Interface with 15KV ESD protection

◆ SIM / UIM card interface with built-in lSKV ESD protection
◆ Power interface with built-in reverse protection and over-voltage protection
◆ Lightning protection of antenna interface (optional)

Easy to use standard

◆ Provide standard RS232, Ethernet and WIFI interfaces, which can directly connect serial/ Ethernet /WIFI devices
◆ Provide standard wired WAN port (support standard PPPOE protocol)
◆ Intelligent data terminal, you can enter data transmission state after power on
◆ Provide powerful central management software to facilitate equipment management (optional)
◆ Easy to use, flexible, multiple working mode selection

Functions

- ◆ Support multiple WAN connection methods, including static IP, DHCP, PPPOE, 3G/4G/5G
- ◆ Support LTE and wired WAN dual link intelligent switch backup function (optional)
- ◆ Support VPN client (PPTP, L2TP, IPSEC)
- ◆ Support VPN sever (PPTP, L2TP, IPSEC)
- ◆ Support remote management, SYSLOG, SNMP, TELNET, SSHD, HTTPS and other functions
- ◆ Support local and remote online upgrade, import and export configuration files.
- ◆ Support NTP, built-in RTC.
- ◆ Support a variety of DDNS

- ◆ WIFI supports 802.llb / g / n / ac, supports WIFI AP, AP Client, repeater, and other working modes (optional)
- ◆ Support a variety of online and offline trigger modes, including SMS, phone ringing,online and offline modes
- ◆ Support Private APN
- ◆ Support DHCP server and DHCP client, DHCP bundled MAC address, DDNS firewall, NAT, DMZ host, QOS, traffic statistics, real-time display data transmission rate and other functions
- ◆ Support TCP / IP, UDP, FTP (optional), HTTP and other network protocols
- ◆ Support SPI firewall, VPN traversal, access control, URL filtering, and other functions.
- ◆ Timed online and offline functions.

Specifications

Wireless

Project	Content
F-NR100 LTE NR WIFI Router	
Standard Band	5G NR: n1/n2/n3/n5/n7/n8/n20/n28/n41/n66/n71/n77/n78/n79 LTE:B1/82/83/84(66)/85(18/19/26)/87/88/812(17)/B13/814/820/825/826/828/829/830/ 838/839/840/841/842/843/ 846/ 848/871
Bandwidth	5G NR: DL 3.4Gbps/UL 350Mbps LTE Cat20: DL 2.OGbps/UL 150Mbps HSPA+: DL 42Mpbs/UL 5.76Mbps
Power	<23dBm
Sensitive	<-97dBm

GPS

Project	Content
GPS	GPS inside (optional)
Type	GPS/GLONASS/BEIDOU/Galileo
Up date interval	5 Hz
Location	2.5mCPE

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Văn phòng HCM: Số 31B, Đường 1, Phường An Phú, Quận 2 (Thủ Đức), TP HCM.

	SSAS: 2.0m CPE
Sensitive	Follow: -160dBm
	Re-capture: - 160dBm
	Cold start: -146dBm

WIFI

Project	Content
Standard Band	IEEE802.11b/g/n2.4G/AP mode/Station mode (optional)
	IEEE802,11ac/5.BG/AP mode/Station mode (optional)
Bandwidth	IEEE802.11b/g: Bandwidth 54Mbps
	IEEE802.11n: Bandwidth 150Mbps
	IEEE802.11ac: Bandwidth 390Mbps
Security	WEP/WPA/WPA2
Power	26dBm (11b) 21.5dBm (11g) 20dBm (11n) 16dBm (11ac)
Sensitive	<-72dBm@54Mpbs

Hardware

Project	Content
CPU	Industrial 32 bit processor
FLASH	16MB (64MB optional)
DDR3	512M
TF	8GB/32GB (optional)

Interface

Project	Content
WAN	1 x 10/100/1000M Ethernet port (RJ45) auto MDI/MDIX 1.5KV ESD
LAN	4 x 10/100/1000M Ethernet port (RJ45) auto MDI/MDIX 1.5KV ESD
Serial	1 x RS232(or RS485) with 15KV ESD Data bit: 5/6/7/8
	Stop bit: 1/2
	Parity: none, even, odd
	Baud rate: 2400 ~ 115200 bps
Indicator	"PWR", "SYS", "WIFI", "SIM", "Online","Signal Strength"
Antenna	3G/4G/5G: 6 x SMA ,50ohm
	WIFI: 2 (4) x SMA, 50ohm
	GPS: 1 x SMA , 50 ohm
SIM/UIM	Standard 3V/1.8V user card interface, 15KV ESD protection
Power	Standard 3-PIN power jack, reverse-voltage and over-voltage protection
RST	Restore the router to its original factory default settings
Note: There may be differences between different models of accessories and interfaces, the actual product shall prevail.	

Công ty TNHH Công nghệ Việt Thái Dương   3

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Power

Project	Content
Standard	DC 12V/1.5A
Range	DC 5~36V
Current	<700mA (12V)

Physical

Project	Content
Box	Metal box IP30
Size	140x200x40 mm
Weight	520g

Others

Project	Content
Working Temp	-35~+75°C (-31~+167°F)
Storage Temp	-40~+85°C < -40~+185°F)
Humidity	95%(unfreezing)

Order Info

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

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