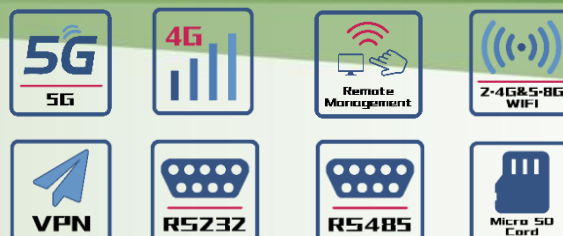


Industrial 5G Router

NR100



Introduction

NR100 is 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. With wide operating temperature range and IP30 metal housing, NR100 is a reliable solution for industrial wireless applications.



Industrial-grade Design

- ▶ High-performance industrial-grade CPU
- ▶ High-performance industrial-grade wireless communication module
- ▶ Support low-consumption mode, scheduled power-on/power-off mode (Optional)
- ▶ Metal casing, IP30 protection level, suitable for most industrial control applications.
- ▶ Wide range power input (DC 9~36V)



Stability & Reliability

- ▶ SIM/UIM card slot with built-in 15KV ESD
- ▶ Ethernet interface with built-in 15KV ESD
- ▶ RS232/RS485 with built-in 15KV ESD
- ▶ Multiple protection mechanism to ensure system stability, always keeping online
- ▶ Auto recovery mechanism, including online detect and auto redial
- ▶ WDT Watchdog design to ensure system stability



Standard & Convenience

- ▶ Standard RS232, RS485, ethernet, and WIFI Interface
- ▶ Provide standard wired WAN port (support standard PPPOE protocol)
- ▶ Intelligent data terminal, automatically enter transmission status after power-on
- ▶ Powerful central management software for easy device management (optional)
- ▶ Easy to use and flexible, has multiple working modes
- ▶ Convenient system configuration and maintenance interface (including local and remote WEB or CLI access)
- ▶ Support wall-mounted, pole-mounted installation

Industrial 5G Router NR100 Series



- ▶ Support 3G/4G/5G and wired WAN dual link backup (Optional) .
- ▶ Multiple WAN connection methods, include static IP, DHCP, PPPOE, 3G/UMTS/4G/LTE, DHCP-4G/5G
- ▶ Support APN/VPDN
- ▶ Support NTP, RTC embedded.
- ▶ Support multiple DDNS provider service
- ▶ Support multiple online trigger ways,including SMS, ring and data. Support link disconnection when timeout
- ▶ Support remote management, SYSLOG, SNMP, TELNET, SSHD, HTTPS, etc.
- ▶ Support upgrade software from the local and remote maintenance.
- ▶ Support SPI firewall, access control, URL filtering, etc.
- ▶ WIFI 802.11b/g/n/ac. Support AP/AP Client/Bridge mode (Optional).
- ▶ VPN Tunnel: PPTP/L2TP/OPENVPN/IPSEC/GRE
- ▶ Support TCP/IP, UDP, FTP (Optional), HTTP and other network protocols
- ▶ Support DHCP server and DHCP client, NAT, DMZ, QOS.
- ▶ Schedule Reboot, Schedule Online and Offline, etc.

Product Specification

Cellular Specification	
Items	Contents
Standard and Band	5G NR: n1/n3, n5, n7, n8, n20, n28, n38, n41, n77,n78, n79 LTE: B1, B2, B3, B5, B7, B8, B20, B28,B34, B38, B39, B40, B41, B42,B43 WCDMA: B1, B2, B5, B8
	Optional: 5G NR: n2, n5, n7, n12, n25,n41, n66, n71, n78 LTE: B2, B4, B5, B7, B12, B13, B14, B17, B25, B26, B29, B30, B66, B71, B41, B42, B48 WCDMA: B1, B2, B5, B8
	Optional: 5G NR: 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/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 LTE TDD: B34/B38/B39/B40/B41/B42/B43/B48
Bandwidth	5G NR : DL 3.4Gbps , UL 900Mbps LTE Cat20 : DL 2.0Gbps , UL 150Mbps HSPA+ : DL 42Mbps , UL 5.76Mbps
Transmit Power	< 23dBm
Sensitivity	< -97dBm

Industrial 5G Router NR100 Series



WIFI Specification

Items	Contents
Standard and Band	Support IEEE802.11b/g/n, 2.4G, Support IEEE802.11ac, 5.8G
Bandwidth	IEEE802.11b/g: Maximum speed rate up to 54Mbps IEEE802.11n: Maximum speed rate up to 300Mbps IEEE802.11ac: Maximum speed rate up to 866Mbps
Security	Support WEP, WPA, WPA2 encrypt methods, optional WPS function
Transmit Power	26dBm (11b) , 21dBm (11ac/MCS7/HT40) , 20dBm (11ac/MCS9/HT80)
Sensitivity	< -72dBm @ 54Mbps

Hardware System

Items	Contents
CPU	Industrial-grade Quad-core CPU
Flash	Nor flash 16MB NAND flash 128MB
DDR3	512MB

Interfaces

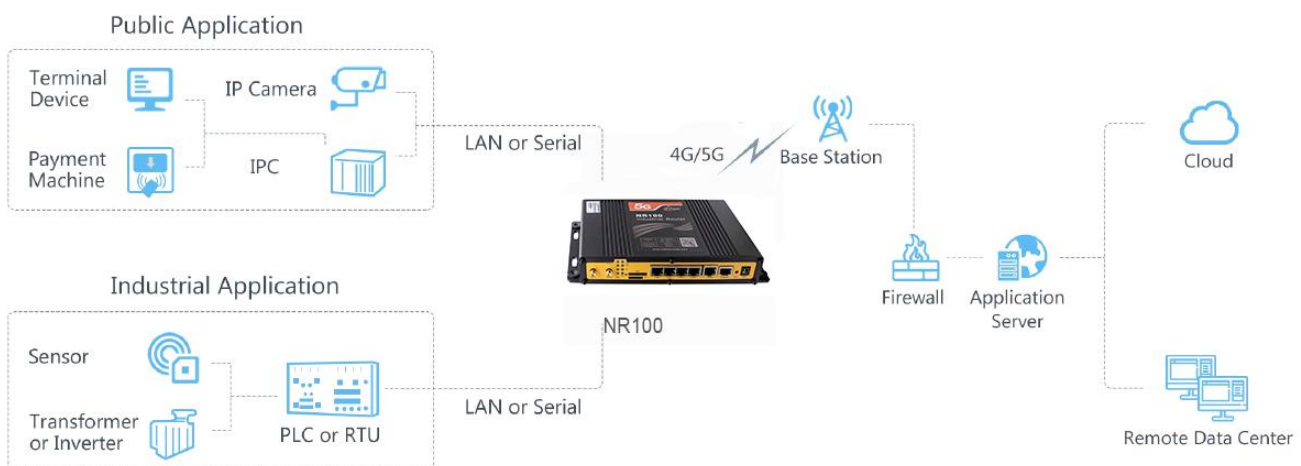
Items	Contents
WAN Interface	1 x Gigabit RJ45 ethernet port, adaptive MDI/MDIX, built-in 15KV ESD
LAN Interface	4 x Gigabit RJ45 ethernet port, adaptive MDI/MDIX, built-in 15KV ESD 1 x RS232/RS485 serial interface with built-in 15KV ESD
Serial	Data bits:5, 6, 7, 8 bits Stop bits:1, 1.5 (optional), 2 bits Error detection: none, even parity, odd parity, SPACE (optional) and MARK (optional) Serial Port Rate: 2400~115200bits/s
LED Indicators	"PWR", "SYS", "2.4G", "5.8G", "Online", "Signal"
TF Card	Micro SD card interface
Antenna Interface	Cellular: 4 * Standard SMA female antenna interface, characteristic impedance: 50 Ω WIFI: 2 * Standard SMA male antenna interface, characteristic impedance: 50 Ω
SIM/UIM Slot	Standard drawer type user card interface, support 1.8V/3V SIM/UIM card, built-in 15KV ESD, support dual-SIM card (optional)
Power Interface	2.5mm DC interface built-in power reverse protection
Reset Button	Can reset router's configuration to default factory setting by this button

Industrial 5G Router NR100 Series



Power	
Items	Contents
Input Voltage	DC 12V/1.5A
Accepted Range	DC 9~36V
Consumption	<1.2A (12V)
Physical Properties	
Items	Contents
Casing	Metal casing, IP30 protection level, suitable for most industrial control applications.
Dimensions	244x135.5x35.8 mm (excluding antennas and mountings parts)
Weight	520g
Others	
Items	Contents
Operating Temperature	-35~+75°C (-31~+167°F)
Storage Temperature	-40~+85°C (-40~+185°F)
Relative Humidity	95% (non-condensing)

Topology



Industrial 5G Router NR100 Series



Dimension



Order Information

Models	SIM/UIM	Description
NR100-L	1	Cellular (5G NR), 2.4G/5G WIFI, SIM*1
NR100-L-SIM2	2	Cellular (5G NR), 2.4G/5G WIFI, SIM*2