

NT-RTU2022

Industrial Cellular VPN Router

2 Ethernet +2 Digital Input + 1 Sim + 1 RS232/RS485



INTRODUCTION

NT-RTU2022 router is a Dual Ethernet port (LAN + WAN) 2G/3G/4G/LTE router with advanced software functions at a very competitive price point. The NT-RTU2022 is a sister product of the other series offering a choice of (3-wire) RS232 or (2-wire) RS485. This means that RS232 and RS485 devices, including Modbus RTU equipment can connect to the internet directly. Ethernet port 0 can be independently configured as WAN, LAN1 or LAN2 and Ethernet port 1 as LAN1 or LAN2.

At the heart of all of Nimbus routers is the best OS. With 5 years of maturity and innovative features, ROS offers customers a very professional product with an easy to navigate Graphical User Interface and the connection stability required by critical IoT applications. The router occupies a very small footprint which is useful for space-constrained applications such as bus signs, ticketing machines, vending machines, covert surveillance & digital signage applications.

The NT-RTU2022 has many unique software innovations including, but not limited to:

VPN – innovative use of Open VPN tunneling to provide a fixed IP address on ANY SIM Card

Data Guard – critical ‘failsafe’ that stops unexpected data over usage within seconds of a threshold being breached.

Smart Reboot – essential backup solution for when your roaming SIM card doesn’t roam!

MQTT is advance & fast communication protocol with advance security features. This is generally use in all application.

KEY FEATURES

- Dual Ethernet and choice of RS232 or RS485 port.
- Modbus RTU to Modbus TCP Gateway built-in.
- Ethernet, Wi-Fi and 4G internet connection options with auto-failover.
- Free cloud management platform.
- Fully programmable Linux environment with excellent SDK Documentation.
- ‘Smart Reboot’ for enhanced roaming SIM management.
- Support MQTT Protocol
- Full SMS control for diagnosis and recovery from data network problems.
- Very small footprint for space-constrained applications.
- Wall-mount and DIN-rail mounting options available.

SPECIFICATIONS

Cellular Interface

Number of antennas	2 External antennas (MAIN + AUX)
Connector	SMA-K
SIM	1 Mini SIM (2 FF)

Ethernet Interface

Number of ports	2 x 10/100 Mbps, 2 x LAN or 1 x LAN + 1 x WAN
Magnet isolation protection	1.5 KV protection

Wi-Fi Interface

Number of antennas	2 (1 external antenna, 1 PCB antenna)
Connector	RP-SMA-K (External antenna)
Standards	802.11 b/g/n, supports AP and Client modes
Frequency bands	2.4 GHz
Security	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP
Data speed	2 x 2 MIMO, 300 Mbps

Serial Interface

Type	1 x RS232 or 1 x RS485 (Hardware configuration)
Connector	3-pin 3.5 mm female socket
Baud rate	300 bps ~ 115200 bps

Others

Reset button	1 x RST
LED indicators	1 x RUN, 1 x MDM, 1 x USB, 1 x RSSI, 1 x WLAN
Built-in	Watchdog, Timer

Software (Basic features of OS)

Network protocols	PPPoE, DHCP, NAT, DNS, NTP, SMTP, Telnet, VLAN, VLSAHN2,, DDNS, etc.
VPN tunnel	IPsec, OpenVPN, GRE
Firewall	DMZ, anti-DoS, Filtering (IP/Domain name/ MAC address), Port Mapping, Access Control
Remote management	Web, CLI, SMS

Digital Input

2 Dry & Wet Digital Input available in this modem as inbuilt IO.

Supported programming languages	C, C++
Flash available for SDK	4 MB
RAM available for SDK	64 MB

Power Supply and Consumption

Connector	2-pin 3.5 mm female socket
Input voltage	9 ~ 36 VDC
Power consumption	Idle: 150 mA@12 V Data link: 700 mA (peak) @12 V

Physical Characteristics

Ingress protection	IP30
Housing & Weight	Metal , 250 g
UL 94	V-0, 5 VB
Installations	35 mm DIN rail mounting
Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +75 °C
Relative humidity	5 ~ 90% RH

Regulatory and Type Approvals for Modem

Environmental	RoHS2.0
EMI	EN 55032: 2012/AC:2013(CE & RE)Class B
EMS	IEC 61000-4-2 (ESD) Contact Level 2 IEC 61000-4-3 (RS) Level 2 IEC 61000-4-4 (EFT) Level 2 IEC 61000-4-5 (Surge) Level 2 IEC 61000-4-6 (CS) Level 2

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