

# NR500 NC Series Industrial Grade VPN Router

## PRODUCT OVERVIEW

### Industrial internet access

- Wired Ethernet connection support DHCP, Static IP and PPPoE
- Remote access to SCADA System for Industrial Automation
- Reduce high costs for on-site maintenance

### Designed for industrial usage

- Power Input Range 9 to 48 VDC
- Industrial designed for harsh environment
- Compact metal casing for easy mounting

### Secure and reliable remote connection

- Connection manager ensure seamless communication
- Support Multiple VPN tunnels for data encryption
- Firewall prevents unsafe and unauthorized access

### Easy to use and easy maintenance

- User-friendly web interface for human interaction
- Easy configuration for deployment
- Support 3rd Party remote management cloud



## TYPICAL APPLICATION



# SPECIFICATION

ETHERNET	
Number of Ports	2 Port: 1 x WAN + 1 x LAN 4 Port: 1 x WAN + 3 x LAN
Port Type	Auto 10/100 Mbps, auto MDI/MDIX
Magnet Isolation Protection	1.5 KV

Wi-Fi (Optional)	
Wireless Mode	IEEE 802.11b/g/n, Access Point (AP), Client
Wireless Speed	2*2 MIMO, 300 Mbps
Wireless Security	WPA, WPA2, WEP, 64/128 AES, TKIP
Frequency Bands	2.412 - 2.484 GHz (2.4 GHz ISM band)
Antennas	2 x RP-SMA for Wi-Fi antenna connectors

SERIAL	
Number of Ports	1 x RS-232 (3 PIN) + 1 x RS-485
Connector	Terminal block
ESD Protection	± 15 KV
Band Rate	300bps to 115200bps

DIGITAL INPUT & OUTPUT	
Type	2 x DI + 2 x DO
Connector	Terminal block
Isolation	3KVDC or 2KVrms
Absolute maximum VDC	36VDC
Absolute maximum ADC	100 mA

NETWORK	
Routing	Static routing, Dynamic routing (Pending)
Network Protocols	TCP, UDP, IPv4, ICMP, NTP, DNS, HTTP, HTTPS, SMTP, ARP, VRRP, PPP, PPPoE, SSH, DHCP, Telnet
Connection Manager	Ping Detection, Timer Reboot, ICMP for link detection
DHCP	Static and dynamic IP allocation
DDNS	Supported some service providers, others can be configured manually
Network Backup	Wired and Wi-Fi WAN options, each of which can be used as backup
Firewall	Flexible access control of TCP, UDP, ICMP packets, MAC address filter

VPN	
OpenVPN	Multiple clients and server can be running simultaneously
IPsec	IKEv1, IKEv2, supports up to 3 x VPN IPsec tunnels
PPTP, L2TP (Pending)	Client mode
DMVPN (Pending)	Dynamic Multipoint Virtual Private Networking DMVPN

MONITORING & MANAGEMENT	
Web GUI	HTTP/HTTPS, firmware upgrade
Command Line Interface	SSHv2 and TELNET
3 <sup>rd</sup> party platform (Pending)	3 <sup>rd</sup> party platform monitoring, e.g. FreeACS, Friendly tech
SNMP (Pending)	SNMP (v1, v2, v3), SNMP trap

POWER	
Connector	3-pin 3.5 mm female socket with lock
Input Voltage Range	9 to 48 VDC
Power Consumption	Idle: 100 mA@12 V Data link: 400 mA (peak) @12 V

HARDWARE SPECIFICATION	
Watchdog	Built-in watchdog
LEDs	SYS,USR
Reset Button	Reset/restore to factory default button
Ingress Protection	IP30
Housing & Weight	Metal, 300 g
Dimensions	106mm x 106mm x 40 mm
Installations	DIN-rail mounting
Operating Temperature	-40 °C to 75 °C
Operating Humidity	5% to 95% non-condensing

APPROVAL		
EMI	EN 55032:2012 Class B	
EMS	IEC 61000-4-2 ESD:	Level 4
	IEC 61000-4-3 RS:	Level 3
	IEC 61000-4-4 EFT:	Level 3
	IEC 61000-4-5 Surge:	Level 3
	IEC 61000-4-6 CS:	Level 3
Vibration	EN50155	

## ORDERING INFORMATION

Model	Part Number	Description
NR500-SNC	A502033	No Cellular Module, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A512033	No Cellular Module, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, 2.4GHz Wi-Fi
NR500-PNC	A504033	No Cellular Module, 4 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A514033	No Cellular Module, 4 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, 2.4GHz Wi-Fi