NavigateWorx

NAVIGATEWORX NR500 STD

Industrial Cellular VPN Router for Energy, Retail, Transportation and Industrial Automation Applications

Navigateworx NR500 Std industrial cellular VPN router enables wireless data connectivity over public and private LTE cellular networks at 4G speeds.

NR500 Std router has dual SIM backup, 2 LAN ports, RS232 and RS485 interfaces are provided to support Serial to IP communication. NR500 Std router supports 9 to 48 VDC wide range power inputs, designed with reverse-voltage protection mechanism for greater reliability. It is an advanced choice for universal wireless M2M applications with reliable features for data transmission.

APPLICATION EXAMPLE

Management Platform

Central Application

2G/3G/4G LTE

NR500 Router

Kiosk

Transportation

Meter

Industrial Automation

Video Surveillance

ATM

BENEFITS

Navigateworx NR500 Std industrial cellular VPN router is ideal connecting to 2G/3G/4G LTE network in critical M2M applications and deployments around the world.

Industrial internet access
- Wireless Mobile Broadband 2G / 3G / 4G Connection
- 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 design for harsh environment
- Aluminum casing

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
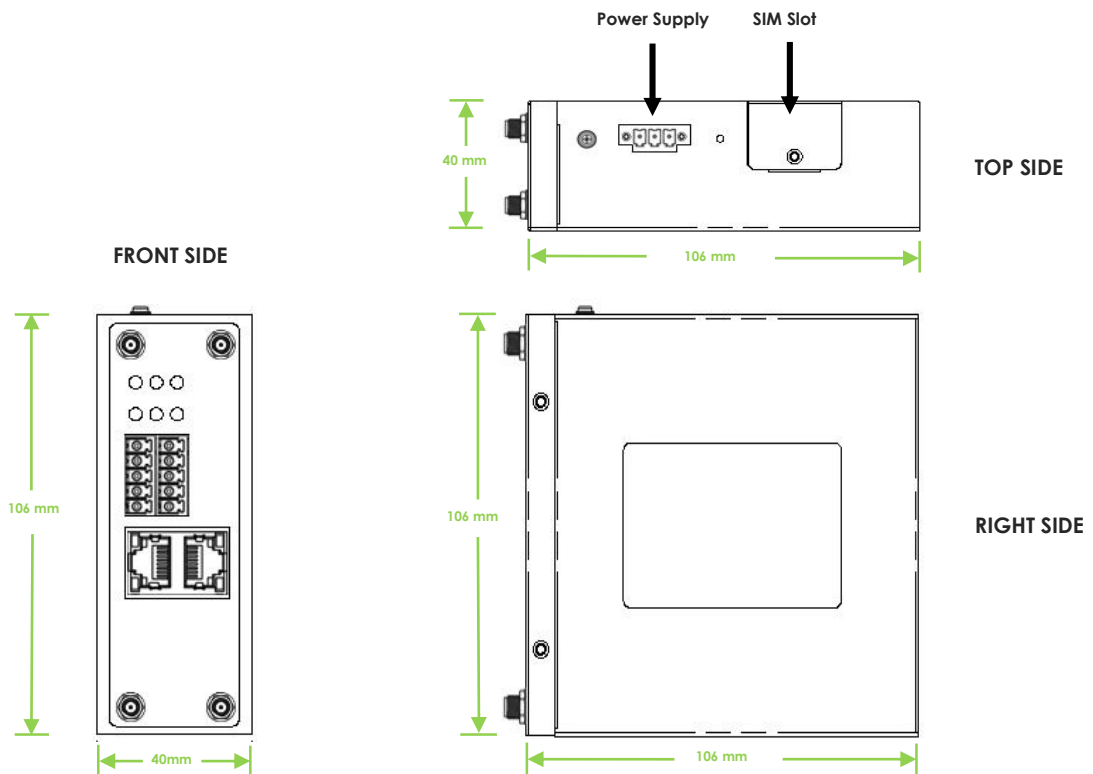- Support Central Management Platform

SPECIFICATIONS

CELLULAR

Frequency Bands	4G(LTE) AU&NZ: B1/B2/B3/B4/B5/B7/B28, B40 EMEA: B1/B3/B5/B7/B8/B20, B38/B40/B41 America: B2/B4/B12/B13 Japan: B1/B3/B8/B18/B19/B26, B41 China: B1/B3/B8, B34/B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B8/B19 TD-SCDMA: B34/B39 GSM/EDGE: B2/B3/B5/B8 **More Bands Demands please contact with us**
SIM	2 x SIM slots, 1.8V / 3V
SIM Failover	Auto-switch cases: data limited, no network, network denied, data connection fail
Auto APN List	Operator APN list
Mobile Quota Control	Set up customized data limits for both SIM cards
SMS	SMS Configuration, SMS Gateway, SMS Notification
Number of Antennas	2 (MAIN + AUX)
Connector	SMA female

ETHERNET

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

WIFI(Optional)

Wireless Mode	IEEE 802.11b/g/n, Access Point (AP), Client
Wireless Speed	2*2 MIMO, 300 Mbps
Wireless Security	WPA, WPA2, WEP, CCMP, 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
Baud 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

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

Watchdog	Built-in watchdog
LEDs	SYS, NET, USR, RSSI x 3
Reset Button	Reset/restore to factory default button
Ingress Protection	IP30
Housing & Weight	Metal, 300 g
Dimensions	106mm x 106mm x 40mm
Installations	DIN-rail mounting
Operating Temperature	-40 °C to 75 °C
Operating Humidity	5% to 95% non-condensing

NETWORK	
Routing	Static routing
Dynamic Routing (Optional)	RIPv1/v2, OSPF, BGP
Network Protocols	TCP, UDP, IPv4, ICMP, NTP, DNS, HTTP, HTTPS, ARP, PPP, PPPoE, DHCP, IP Passthrough, VRRP
Connection Manager	Ping Detection, Timer Reboot, ICMP for link detection
Firewall	Flexible access control of TCP, UDP, ICMP packets, MAC address filter
DDNS	Supported some service providers, others can be configured manually
Modbus Slave (Optional)	Read device status via Modbus protocol
SMS	SMS Configuration, SMS Gateway, SMS Notification
VPN	
OpenVPN	OpenVPN client, supports up to 5 x OpenVPN tunnels
GRE	Layer2 and Layer3, supports up to 5 x GRE VPN tunnels
IPsec	IKEv1, IKEv2, supports up to 5 x IPsec VPN tunnels
DMVPN (Optional)	Dynamic Multipoint Virtual Private Networking DMVPN
PPTP/L2TP (Optional)	PPTP or Point-to-Point Tunneling Protocol and L2TP or Layer 2 Tunneling Protocol (L2TP)
MONITORING & MANAGEMENT	
Web GUI	HTTP/HTTPS, firmware upgrade
Command Line Interface	SSHv2 and TELNET
Management Platform	Central Management Platform
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	

DIMENSIONS

Power Supply   SIM Slot

40 mm

106 mm

TOP SIDE

FRONT SIDE

106 mm

40mm

106 mm

106 mm

RIGHT SIDE

ORDERING INFORMATION

MODEL	PART NUMBER	DESCRIPTION
NR500-S4G	A502433	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A512433	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, 2.4GHz Wi-Fi
NR500-S3G	A502333	3G, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A512333	3G, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, 2.4GHz Wi-Fi

OPTIONAL ACCESSORIES

Power Supply   **Cellular Rubber Antenna**   **Cellular Magnet Antenna**   **Wi-Fi Rubber Antenna**   **Wi-Fi Magnet Antenna**   **Din-Rail**

FOR MORE INFORMATION

PLEASE VISIT WWW.NAVIGATEWORX.COM

Navigateworx is always available to serve you with expert technical support and we will continually concentrate on IIoT / M2M Industry and bring more and more reliable, trustable Solution for our clients. That is NavigateWorx.

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