

# NAVIGATEWORX NR500 STD

Industrial Cellular VPN Router, Dual SIM Failover,  
Multiple Industrial Interfaces



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 Ethernet ports, RS232 and RS485 interfaces are provided to support Serial to IP communication. GPS is optional based on LTE module capability. Supports 9 to 48 VDC wide range power inputs, designed with reverse-voltage protection mechanism. It is an advanced choice for wireless M2M applications with reliable features for data transmission.

## TYPICAL APPLICATION



### Secure and reliable internet access

- Wireless Mobile Broadband 2G / 3G / 4G Connection
- Connection manager ensure seamless communication
- Support Multiple VPN tunnels for data encryption

### Designed for industrial usage

- Power Input Range 9 to 48 VDC
- Industrial design for harsh environment
- Metal casing and din-rail installation

### Easy to use and easy maintenance

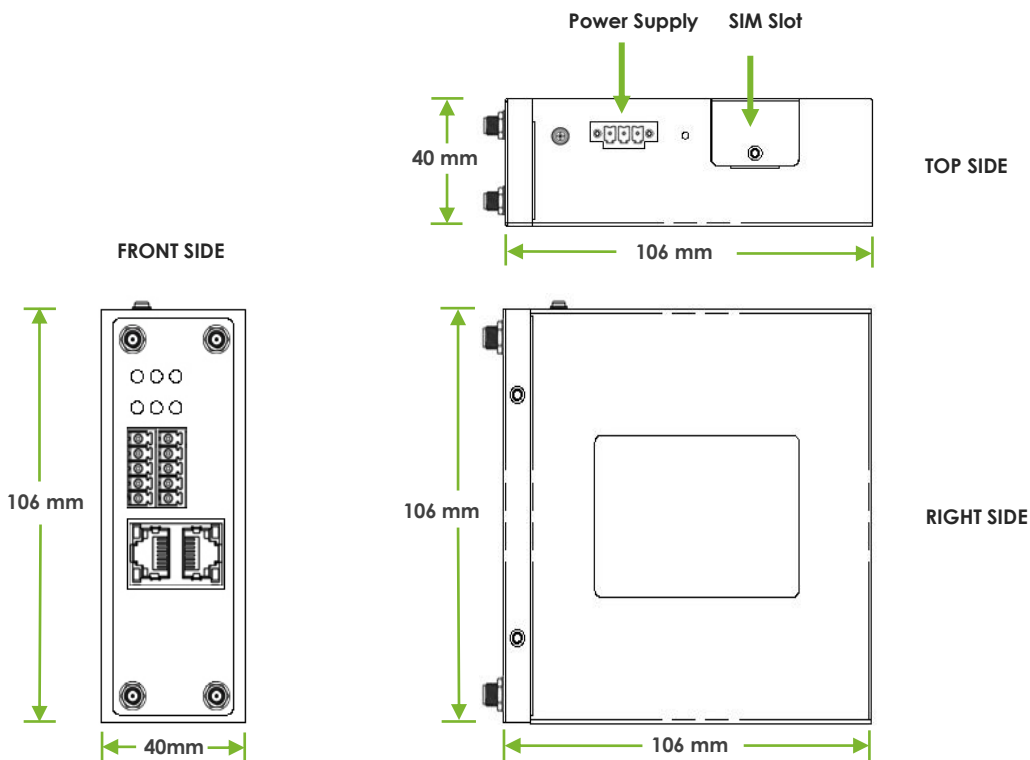
- User friendly web interface for user interaction
- Support Central Management Platform
- Reduce high costs for onsite maintenance

# 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 <b>More Bands Demands please contact with us</b>
SIM	2 x SIM slots, 1.8V / 3V
SIM Failover	Auto-switch cases: data limited, no network, network denied, data connection fail
SMS	SMS Configuration, SMS Gateway, SMS Notification
Antennas	2 (MAIN + AUX), SMA female
ETHERNET	
Number of Ports	1 x WAN + 1 x LAN or 2 x LAN, Auto 10/100 Mbps
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, CCMP, TKIP
Frequency Bands	2.412 - 2.484 GHz (2.4 GHz ISM band)
Antennas	2 x RP-SMA for Wi-Fi antenna connectors
GNSS/GPS (Optional)	
Features	Gen8C Lite of Qualcomm (GPS, GLONASS, BeiDou, Galileo, QZSS)
Protocol	NMEA-0183
Antennas	1 x SMA female with 50 ohms impedance
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	
Modbus Master (Optional)	Able to read specified channels value from external Modbus slave and generate alarm	
SMS	SMS Configuration, SMS Gateway, SMS Notification	
VPN		
OpenVPN	OpenVPN server/client mode, client mode 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



# ORDERING INFORMATION

MODEL	PART NUMBER	DESCRIPTION
 NR500-P4G	A502433	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A502733	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, aGPS
	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
	A512733	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, aGPS
 NR500-P3G	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
<b>OPTIONAL ACCESSORIES</b>		
 Power Supply	F001009	Power Supply Adapter, EU Plug, Input 100 to 240VAC, Output 12V DC 1.5A
	F001011	Power Supply Adapter, AU Plug, Input 100 to 240VAC, Output 12V DC 1.5A
	F001012	Power Supply Adapter, US Plug, Input 100 to 240VAC, Output 12V DC 1.5A
	F001013	Power Supply Adapter, UK Plug, Input 100 to 240VAC, Output 12V DC 1.5A
 Wi-Fi Rubber Antenna	F001004	Wi-Fi Rubber Antenna, 2.4G-2.483G, 5dbi, Φ 13×197mm, AC
 Wi-Fi Magnet Antenna	F001005	Wi-Fi Magnet Antenna, 3 Meters, 2.4G - 2.483G, 5dbi, Φ 29×220mm, AC
 LTE Rubber Antenna	F001006	4G / 3G / 2G Rubber Antenna, 698-960 / 1710-2170 / 2500-2700 MHz, 2.5dbi, Φ8×108mm, AC
 LTE Magnet Antenna	F001007	Wi-Fi Magnet Antenna, 3 Meters, 2.4G - 2.483G, 5dbi, Φ 29×220mm, AC
 GPS Antenna	F001015	GPS Active Magnetic Mount Antenna, 3 Meters Cable
 Din-Rail	F004001	Din Rail Kit, 35 mm, Aluminium with Black Spray Surface, 50 * 40 * 8.5 mm, 3 * M3.5 Screw Holes

## ABOUT NAVIGATEWORX

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