GoRugged R3000 Wireline

Industrial Wireline VPN Router

for Rugged Secure Connectivity

Robustel GoRugged R3000 Wireline is a rugged VPN router offering state-of-the-art secure connectivity for machine to machine (M2M) applications.

Key Features

- WAN link management: Ethernet WAN/WLAN WAN backup.
- VPN tunnel: IPSec/OpenVPN/PPTP/L2TP/GRE.
- Supports Modbus gateway (Modbus RTU/ASCII to Modbus TCP).
- Supports GPS&GLONASS (optional), provides real time location and tracking.
- Supports 802.11 b/g/n Wi-Fi (optional), AP and client mode.
- Supports SDK, provides user programmatic interface.
- Supports 802.1Q VLAN Trunk.
- Auto reboot via Timing.
- Supports RobustLink (Centralized M2M management platform, to remote monitor, configure and update firmware).
- Supports RobustVPN (Cloud VPN Portal, to provide easy and secure remote access for PLCs and machines).
- Flexible Management methods: Web/CLI/SNMP/RobustLink.
- Firmware upgrade via Web/CLI/USB/RobustLink.
- Various interfaces: RS232/RS485/Console/DI/DO/USB/Ethernet.
- Wide range input voltages from 9 to 60 VDC and extreme operating temperature.
- The metal enclosure can be mounted on a DIN-rail or on the wall, also with extra ground screw.

Applications

- ATM/Vending Machine Connectivity
- Solar/Wind Energy Monitor
- Distribution Automation
- Automatic Meter Reading
- Industrial Automation
- IP Video Surveillance
- Remote Devices

Packing List

- Robustel R3000 Wireline Router
- Terminal Block for Power, I/O and Serial Port
- Document and Software CD
- Ethernet cable

Optional Accessories (can be purchased separately)

- AC/DC Power Supply Adapter
- Rubber SMA Antenna for WLAN
- Rubber SMA Antenna for GPS
- 35mm Din-Rail mounting kit or Wall mounting kit

Selection and Ordering Data

Model No.	Description	Operating Environment
R3000-NU	2 Ethernet ports, 1 RS232, 1 RS485, 2 DI, 2 DO	-40 to 85°C/5 to 95% RH
R3000-QLA	4 Ethernet ports, 1 RS232	-40 to 85°C/5 to 95% RH
R3000-QLB	4 Ethernet ports, 1 RS485	-40 to 85°C/5 to 95% RH

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Specifications

Ethernet Interface
- Number of Ports:
    2 x 10/100 Mbps, 1 LAN+1 WAN (2 Ethernet ports model)
    4 x 10/100 Mbps, 3 LAN+1 WAN (4 Ethernet ports model)
- Magnet Isolation Protection: 1.5KV

WLAN Interface (Optional)
- Standards: 802.11b/g/n up to 65 Mbps, AP and Client mode
- Frequency Band: 2.400 - 2.500 GHz (2.4 GHz ISM band)
- Security: Open, WPA, WPA2, WEP
- Encryption: AES, TKIP, WEP64, WEP128
- Antenna Interface: RP-SMA Female
- Transmission Power: 802.11b: 17dBm, 802.11g/n: 15dBm
- Reception Sensibility: 1M: -97dBm, 2M: -93dBm, 6M: -91dBm, 11M: -89dBm, 54M: -75dBm, 65M: -72dBm

Serial Interface
- Number of Ports:
    1 x RS-232+1 x RS-485 (2 Ethernet ports model)
    1 x RS-232 or 1 x RS-485 (4 Ethernet ports model)
- ESD Protection: ±15KV
- Parameters: 8E1, 8O1, 8N1, 8N2, 7E2, 7O2, 7N2, 7E1
- Baud Rate: 300bps to 230400bps
- RS-232: TxD, RxD, RTS, CTS, GND
- RS-485: Data+ (A), Data- (B)
- Interface: 3.5mm terminal block with lock

Digital Input (2 Ethernet port model only)
- Type: 2 x DI, Dry Contact
- Dry Contact: On: open, Off: short to GND
- Isolation: 3K VDC or 2K Vrms
- Absolute Maximum VDC: 5V
- Digital Filtering Time Interval: Software selectable
- Interface: 3.5mm terminal block with lock

Digital Output (2 Ethernet port model only)
- Type: 2 x DO, Sink
- Isolation: 3K VDC or 2K Vrms
- Absolute Maximum VDC: 30V
- Absolute Maximum ADC: 300mA
- Interface: 3.5mm terminal block with lock

GPS&GLONASS Interface (Optional)
- Antenna Interface: SMA Female, 50 ohms impedance
- Tracking Sensitivity: GPS: better than -148 dBm
                        GLONASS: better than -140 dBm
- Horizontal position accuracy: GPS: 2.5 m
                        GLONASS: 4.0 m
- Time-To-First-Fix: GPS: 26 s
                        GLONASS: 30 s
- Protocol: NMEA-0183 V2.3

System
- LED Indicators: RUN, WLAN, USR
- Built-in RTC, Watchdog, Timer
- Expansion: 1 x USB 2.0 host up to 480 Mbps
- Storage: 1 x MicroSD

Software
- Network protocols: PPPoE, TCP, UDP, DHCP, ICMP, NAT, DMZ, RIP v1/v2, OSPF, DDNS, VRRP, HTTP, HTTPs, DNS, ARP, QoS, SNTP, Telnet, VLAN, SSH2, etc
- VPN tunnel: IPSec/OpenVPN/PPTP/L2TP/GRE
- Firewall: SPI, anti-DoS, Filter, Access Control
- Management: Web, CLI, SNMP v1/v2/v3, RobustLink
- Serial Port: TCP client/server, UDP, Modbus RTU/ASCII to Modbus TCP, Virtual COM (COM port redirector)
- RobustLink: Centralized M2M management platform
- RobustVPN: Cloud VPN Portal

Power Supply and Consumption
- Power Supply Interface: 5mm terminal block with lock
- Input Voltage: 9 to 60 VDC
- Power Consumption: Idle: 100 mA @ 12 V
                        Data Link: 400 mA (peak) @ 12 V

Physical Characteristics
- Housing & Weight: Metal, 500g
- Dimension: (L x W x H): 125 x 108 x 45 mm
- Installation: 35mm Din-Rail or wall mounting or desktop

Regulatory and Type Approvals
- Approval & Certification: CE, R&TTE, FCC, RCM, RoHS, WEEE
- EMI: EN 55022 (2006/A1: 2007) Class B
- EMC: EN 61000-4-2 (ESD) Level 3, EN 61000-4-3 (RS) Level 4
    EN 61000-4-4 (EFT) Level 4, EN 61000-4-5 (Surge) Level 3
    EN 61000-4-6 (CS) Level 4, EN 61000-4-8, Level 4

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