

# GoRugged R2000 Dual

## Dual Module Industrial Cellular VPN Router

### For GPRS/EDGE/UMTS/WCDMA/HSPA+/FDD LTE Networks

Robustel GoRugged R2000 Dual is a rugged cellular router offering state-of-the-art mobile connectivity for machine to machine (M2M) applications.

#### Key Features

- Two modules embedded, support two SIM cards online in the meantime
- Various interfaces: 1xWAN, 4xLAN, Wi-Fi, POE, Digital Input
- LAN: 4 LAN port support POE
- WAN: static, PPPOE and DHCP client
- Wi-Fi: support AP or client
- Support cellular, WAN and WLAN link backup; support cold backup mode, warm backup mode and Load balancing; support ICMP detection
- VPN tunnel: IPsec/OpenVPN/GRE/L2TP/PPTP/DMVPN
- Auto reboot via SMS/Timing
- Support RobustLink (Centralized M2M management platform, to remote monitor, configure and update firmware)
- Flexible management methods: Web/SMS/CLI/ RobustLink
- Firmware upgrade via Web/CLI/SMS/RobustLink
- Advanced firewall: filtering, port mapping, DMZ
- Support QoS, DDNS, VRRP, Captive Portal, SNMP, WLAN multi, multi-language
- Wide range input voltages from 9 to 48 VDC
- The metal enclosure can be mounted on a DIN-rail, on the wall or be put on desktop



#### Applications

- ATM/Vending Machine/Retail POS/Kiosks
- Branch Office
- Convenience Stores
- Quick Service Restaurant
- Digital Signage
- IP Video Surveillance

#### Selection and Ordering Data

Model No.	Frequency Band	Operating Environment
R2000 Dual-D3P1	Single module (PCIE) WCDMA/HSDPA/HSUPA/HSPA+: 850/1900/2100 MHz GSM/GPRS/EDGE: 850/900/1800/1900 MHz	-40 to +70°C/ 5 to 95% RH
R2000 Dual-D3P2	Dual module (PCIE) DC-HSPA+/HSPA+/HSPA/UMTS: 850/900/1900/2100 MHz GSM/GPRS/EDGE: 850/900/1800/1900 MHz	-40 to +70°C/ 5 to 95% RH
R2000 Dual-D4L1	Single module (PCIE) LTE FDD: B1, B2, B3, B4, B5, B7, B8, B20 DC-HSPA+/HSPA+/HSPA/UMTS: 850/900/1900/2100 MHz GSM/GPRS/EDGE: 850/900/1800/1900 MHz	-40 to +70°C/ 5 to 95% RH
R2000 Dual-D4L2	Dual module (PCIE) LTE FDD: B1, B2, B3, B4, B5, B7, B8, B20 DC-HSPA+/HSPA+/HSPA/UMTS: 850/900/1900/2100 MHz GSM/GPRS/EDGE: 850/900/1800/1900 MHz	-40 to +70°C/ 5 to 95% RH

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### Specifications

#### Cellular Interfaces

- Standards: GSM/GPRS/EDGE/UMTS/WCDMA/HSPA/HSDPA/HSUPA/HSPA+/DC-HSPA+/FDD LTE
- FDD LTE: max. 150 / 50 Mbps (DL/UL) @20M BW cat4
- DC-HSPA+: 42 / 5.76 Mbps (DL/UL)
- HSPA+: max. 21.6 / 5.76 Mbps (DL/UL)
- WCDMA: 384 / 384 kbps (DL/UL)
- EDGE: 236.8 kbps (DL/UL)
- GPRS: 85.6 kbps (DL/UL)
- Module: PCIE module, one module or dual module optional
- SIM: 2 (3V & 1.8V)
- Antenna Interface: SMA Female(2xMAIN and 2xAUX)

#### Ethernet Interfaces

- Number of Ports: 1xWAN and 4xLAN (10 / 100Mbps)
- Magnet Isolation Protection: 1.5KV

#### WLAN Interfaces

- Standards: 802.11b/g/n, support AP and Client mode
- Data speed: 150Mbps
- Frequency Band: 2.412 - 2.485 GHz
- Security: WEP, WPA, WPA2
- Encryption: 64 / 128 AES, TKIP
- Antenna Interface: RP-SMA Female x1

#### Other Interfaces

- POE (4xLAN)  
Four ports power supply output  
IEEE802.3 at/af standard compatibility  
Maximum power output up to 30W per port  
Power management function
- Digital Input (DI)  
When router is used in in-vehicle networks, DI function could make router enter a state of low power consumption which can avoid the battery excessive consumption of the vehicle.

#### System

- Reset button
- LED Indicators: 1\*RUN, 2\*PPP, 1\*USR, 2\*NET, 6\*RSSI

#### Software

- Network protocols: PPP, TCP, UDP, DHCP, ICMP, NAT, DMZ, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, SNTP, SSH, Telnet, SNMP, AAA etc.
- VPN tunnel: IPSec/OpenVPN/GRE/L2TP/PPTP/DMVPN
- Firewall: SPI, anti-DoS, Filter, Access Control
- Management: Web, SMS, CLI

#### Power Supply and Consumption

- Power Supply Interface: 3.5mm terminal block
- Input Voltage: 9 to 48 VDC
- Power Consumption: Idle: 100 mA @ 12 V  
Data Link: 800 mA (peak) @ 12 V
- With ground screw

#### Physical Characteristics

- Housing & Weight: Metal, 750g
- Dimension: 145mm x 130mm x 46mm
- Installation: 35mm Din-Rail or wall mounting or desktop

#### Regulatory and Type Approvals

- Approval & Certificate: CE, RCM  
EMC:  
EN55022: 2006/A1: 2007 (CE) Class B  
EN55022: 2006/A1: 2007 (RE) Class B  
EN 61000-4-2 (ESD) Level 4  
EN 61000-4-4 (EFT) Level 4  
EN 61000-4-5 (Surge) Level 3

#### Packing List

- Robustel R2000 Dual Router
- Terminal Block for Power
- Document and Software CD

#### Optional Accessories (can be purchased separately)

- AC/DC power supply adapter, POE power supply adapter
- 35mm Din-Rail mounting kit or wall mounting kit
- SMA cellular antenna (HSPA+/LTE)
- RP-SMA Wi-Fi antenna (stubby or magnet)

Contact:

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