



#### INTRODUCTION

The Robustel Industrial Dual SIM Cellular VPN Router (R2000) is a rugged cellular router offering state-of-the-art mobile connectivity for machine to machine (M2M) applications.

R2000 is a powerful router developed from **RobustOS**, a Robustel self-developed and Linux-based operating system which is designed to be used in Robustel devices. The RobustOS includes basic networking features and protocols providing customers with a very good user experience. Meanwhile, Robustel offers a **Software Development Kit** (SDK) for partners and customers to allow additional customization by using C, Python or Java. It also provides rich **Apps** to meet fragmented IoT market demands.

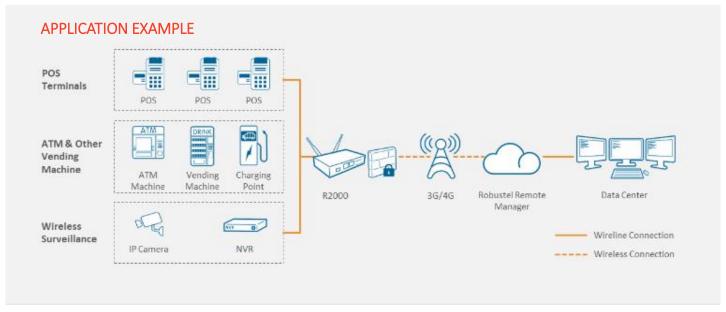
Robustel is a leading global industrial IoT/M2M hardware and solution provider. Since its establishment in 2010 in Guangzhou, China, Robustel has been focusing on designing and manufacturing industrial cellular routers, gateways, modems, cloud platforms and E2E solutions. In order to support global business in more than 100+ countries and regions, Robustel has set up local offices in Germany, Australia, the Netherlands, the UK, Japan and Hong Kong.

## **CERTIFICATIONS**

CE, EAC, RCM

### **KEY FEATURES**

- Dual-SIM redundancy for continuous 2G/3G/4G cellular network connections
- The feature Link Manager supporting Cellular WAN, Ethernet WAN, WLAN WAN link backup and ICMP detection
- WAN Static/PPPoE/DHCP Client
- WAN port supporting PD feature compatible with 802.3at. (optional)
- RobustOS + SDK + App
- IPsec/OpenVPN/GRE/L2TP/PPTP/ DMVPN
- Management and maintenance via Web/CLI/SMS/RobustLink Cloud
- Auto reboot via SMS/Timing
- Robust industrial design (9 to 36V DC, desktop or wall mounting or DIN rail mounting)





#### **SPECIFICATIONS**

**Cellular Interface** 

 Number of antennas
 2 (MAIN + AUX)

 Connector
 SMA female

 SIM
 2 (3 V & 1.8 V)

**Ethernet Interface** 

Number of ports 2 x 10/100 Mbps, 2 x LAN or 1 x LAN + 1 x WAN WAN port Supporting 802.3 at PD feature (optional)

Magnet isolation 1.5 KV

WiFi Interface (Optional)

Number of antennas 2 (WiFi1 + WiFi2) Connector RP-SMA male

Standards 802.11b/g/n, supporting AP and Client modes

Frequency bands 2.4 GHz

Security WEP, WPA, WPA2
Encryption 64/128 AES, TKIP
Data speed 2\*2 MIMO, 300 Mbps

RF output power 802.11b 19 dBm Receiving sensitivity 802.11b -93 dBm

Others

Reset button 1 x RST

LED indicators 1 x RUN, 1 x PPP, 1 x USR, 3 x RSSI

Built-in Watchdog, Timer

Software (Basic features of RobustOS)

Network protocols PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP,

VPN tunnel IPsec, OpenVPN, GRE

Firewall DMZ, anti-DoS, Filtering (IP/Domain name/

Management Web, CLI, SMS

Serial port Transparent, TCP Client/Server, UDP,

App Center (Available Apps for RobustOS)

Apps\* L2TP, PPTP, DMVPN, RobustVPN, VRRP, QoS, \*Request on demand. For more Apps please visit www.robustel.com.

**Power Supply and Consumption** 

Connector 3-pin 3.5 mm female socket

Input voltage 9 to 36V DC
Power consumption Idle: 100 mA@12 V
PD feature\* (optional) WAN port supported

\*It is not recommended to use DC power supply and PD power supply

**Physical Characteristics** 

Ingress protection IP30
Housing & Weight Metal, 305 g
Dimensions 127.5 x 82.5 x 29.5 mm

Installations Desktop, wall mounting and 35 mm DIN rail

**Regulatory and Type Approvals** 

Regulatory: RCM, CE, CCC, EAC,FCC,PTCRB

Application E-mark (Vehicle)
Environmental: RoHS, WEEE

EMI EN 55032: 2012/AC: 2013 (CE & RE) Class A
EMS IEC 61000-4-2 (ESD) Contact Level 2; Air Level 3

IEC 61000-4-4 (EFT) Level 2 IEC 61000-4-5 (Surge) Level 3

## **ORDERING INFORMATION**

Model	R2000-3P	R2000-4L	R2000-4M	R2000-NU
Router Type	HSPA+ Router	LTE Router	LTE-M Router	
Air Interface	GSM/GPRS/EDGE/HSDPA/H SUPA/HSPA+	GSM/GPRS/EDGE/WCDMA/HSDP A/HSUPA/HSPA+/DC-HSPA+/ TD-SCDMA/CDMA (CDMA 1X/EVDO)/FDD LTE/TDD LTE/	EGPRS/Cat.M1/Cat.NB1	
Frequency Bands  4G*		AU: B1/B3/B5/B7/B8/B28, B40 EU: B1/B3/B7/B8/B20/B28/B31, B38/B40 US: B2/B4/B5/B13/B17/B25, B41 JP: B1/B3/B8/B9/B18/B19/B21/B28, B41 CN: B1/B3, B38/B39/B40/B41	LTE Cat.M1/Cat.NB1:B1/B2/B3/B4/B5/ B8/B12/B13/B18/B19/B20/B26/B2 8/B39(for TDD)	
3G	B1/B2/B5/B8/B19	WCDMA/HSDPA/HSUPA/HSPA+/ DC-HSPA+: B1/B2/B5/B6/B8/B9/B19 TD-SCDMA: B34/B39 CDMA (CDMA 1X/EVDO): R0/A BC0/BC1/BC10		
2G	850/900/1800/1900 MHz	850/900/1800/1900 MHz	EGPRS:850/900/1800/1900MHz	
Operating Environment	-25 to +70 °C/5 to 95% RH	-25 to +70 °C/5 to 95% RH	-25 to +70 °C/5 to 95% RH	-25 to +70 °C/5 to 95% RH

<sup>\*</sup>For more information about 4G frequency bands in different countries, please contact your Robustel sales representative.



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# **Assured Systems**

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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