



R2000 robustOS

Industrial Dual SIM Cellular VPN Router
2 Eth + 2 SIM



INTRODUCTION

The Robustel R2000 Industrial Dual SIM Cellular Router is a rugged, versatile 4G router with dual Ethernet ports, dual SIM capability and a range of advanced functions for mission critical IoT or M2M applications. 802.11n Wi-Fi client and AP capabilities.

The R2000 runs on Robustel's own Linux based Operating System, **RobustOS**. Developed entirely in-house, this gives way to a very high standard of technical support and high reliability. Many unique software innovations are built on top of RobustOS, these include:

RobustVPN – highly flexible hosted VPN service so customers can easily enjoy a “fixed IP router”

Data Guard – invaluable failsafe in case of a system failure and runaway data usage

Smart Reboot – SMS tool to push roaming SIMs from a non-working to working state

Smart Roaming - provides you with Device assisted intelligent network selection for roaming SIMs to improve performance and reduce risk.

RCMS is Robustel's free router cloud monitoring service that is fully compatible with the R2000. It allows customers to see a location overview of their routers quickly and simply on a map. Features such as data usage, signal strength, current network and much more can then be viewed on a per router basis. Over-the-air updates are supported for firmware, router configuration and Apps serving as essential ‘insurance’ if anything was not quite right during deployment.

You can try Robustel's free router management platform by signing up here:

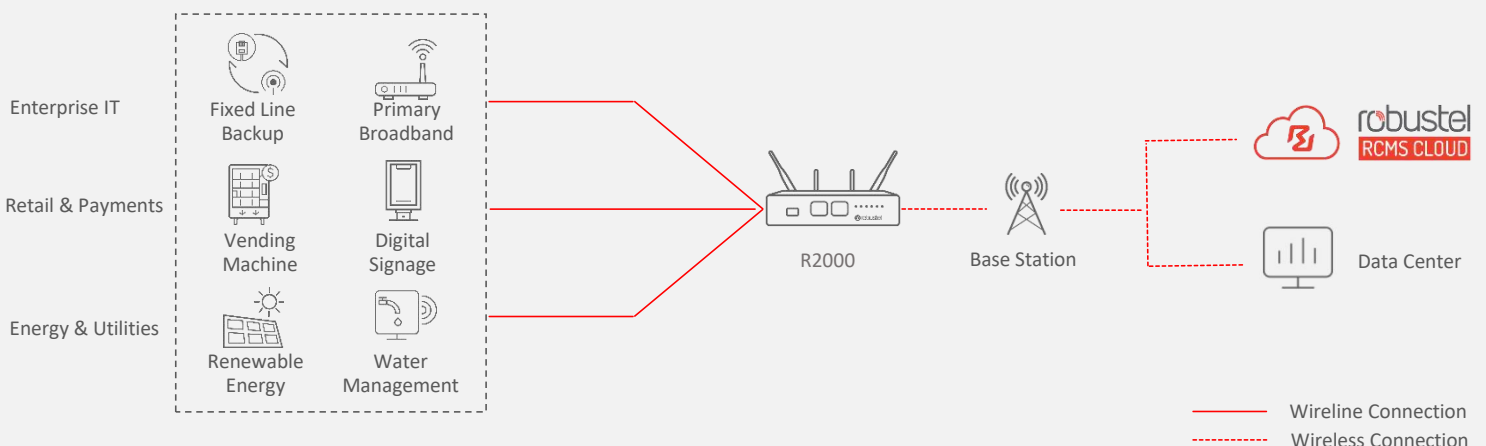
<https://rcms-cloud.robustel.net>



KEY FEATURES

- Available in 4G Cat 4 high speed and Cat-M1 low speed networks
- Industrial design (9 ~ 36 VDC, desktop or wall mounting or DIN rail mounting)
- Management and maintenance via Web/CLI/SMS/RCMS Cloud
- Supports IPv6
- WAN port supports 802.3at PoE-PD
- Wi-Fi/Ethernet/4G WAN interface options with failover
- IPsec/OpenVPN/GRE/L2TP/PPTP/DMV PN/Wireguard VPN capabilities
- RobustVPN – hosted VPN service providing a “fixed IP” router

APPLICATION EXAMPLE



SPECIFICATIONS

Cellular Interface

Number of antennas	2 (MAIN + AUX)
Connector	SMA/K
SIM	2 Mini SIM (2FF)

Ethernet Interface

Number of ports	2 x 10/100 Mbps, 2 x LAN or 1 x LAN + 1 x WAN
Magnet isolation protection	1.5 KV

Wi-Fi Interface (Optional)

Number of antennas	2 (Wi-Fi1 + Wi-Fi2)
Connector	RP/SMA/K
Standards	802.11 b/g/n, supporting AP and Client modes
Frequency bands	2.4 GHz
Security	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP
Data speed	2 x 2 MIMO, 300 Mbps

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, HTTPS, DNS, ARP, BGP, RIP, OSPF, NTP, SMTP, Telnet, VLAN, SSH2, DDNS, etc.
VPN tunnel	IPSec, OpenVPN, GRE
Firewall	DMZ, anti-DoS, Filtering (IP/Domain name/MAC address), Port Mapping, Access Control
Remote Management	Web, CLI, SMS
Serial port	Transparent, TCP Client/Server, UDP, Modbus RTU Gateway

App Center (Available Apps for RobustOS)

Apps*	L2TP, PPTP, DMVPN, VRRP, QoS, Captive Portal, WLAN Multi AP, SNMP, Language, RCMS
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*Request on demand. For more Apps please visit www.robustel.com.

SDK

Supported programming language	C, C++
Flash available for SDK	4 MB
RAM available for SDK	16 MB

Power Supply and Consumption

Connector	3-pin 3.5 mm female socket
Input voltage	9 ~ 36 VDC
Power consumption	Idle: 100 mA@12 V Data link: 500 mA (peak) @12 V

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 mounting
Operating temperature	-25 ~ +70 °C
Storage temperature	-40 ~ +85 °C
Relative humidity	5 ~ 95% RH

Regulatory and Type Approvals

Environmental	RoHS2.0, 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	PN	Category	Wi-Fi	Frequency Bands*	Country/Region	Certifications (*In progress)
R2000-4M	B014744	Cat M1	-	4G: LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28	EMEA, Oceania	CE, RCM
	B014748		✓	LTE TDD: B39 (for Cat.M1 only) 2G: EGPRS: 850/900/1800/1900 MHz	EMEA, Oceania	CE, RCM
R2000-4L	B014725	Cat 4	-	4G: LTE FDD: B1/B3/B5/B7/B8/B20 LTE TDD: B38/B40/B41	EMEA	CE, E-13
	B014726		✓	3G: WCDMA: B1/B5/B8 2G: GSM: B3/B8	Oceania, South America	RCM, ANATEL, CRC, SUBTEL, ENACOM, URSEC, ARCOTEL
	B014737		-	4G: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40		
	B014740		✓	3G: WCDMA: B1/B2/B5/B8 2G: GSM: B2/B3/B5/B8	North America EMEA	FCC, PTCRB, AT&T, IC, TELUS CE, E-13, TRA, ICASA
	B014747		✓	4G: LTE FDD: B2/B4/B12 3G: WCDMA: B2/B4/B5		
	B014751		✓	4G: LTE FDD: B1/B3/B7/B8/B20/B28A 3G: WCDMA: B1/B8 2G: GSM: B3/B8	North America	FCC, PTCRB, AT&T, IC, TELUS
	B014756		-	4G: LTE FDD: B1/B3/B8/B18/B19/B26 LTE TDD: B41	Japan	Telec, JATE
	B014754		-	3G: WCDMA: B1/B6/B19		
B014755	✓					

*For more information about frequency bands in different countries, please contact your Robustel sales representative.



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