R2000 Dual

robustOS

Industrial Dual Module Cellular VPN Router
with Power over Ethernet

INTRODUCTION

Robustel's R2000 Dual Industrial Dual Module Cellular VPN Router with Power over Ethernet provides fast and reliable communication for monitoring and controlling remote equipment. The added new feature, Power over Ethernet, makes installing or expanding much simpler and cheaper for both power and data transmission.

The R2000 Dual router adds the Power over Ethernet (POE) function, which can provide DC power to such devices while transmitting data signals to some IP-based terminal devices. Not only save network construction costs, reduce manpower and material resources, but also facilitate installation and management.

RCMS is Robustel's free router monitoring service that is fully compatible with the R2000 Dual. It allows customer 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.
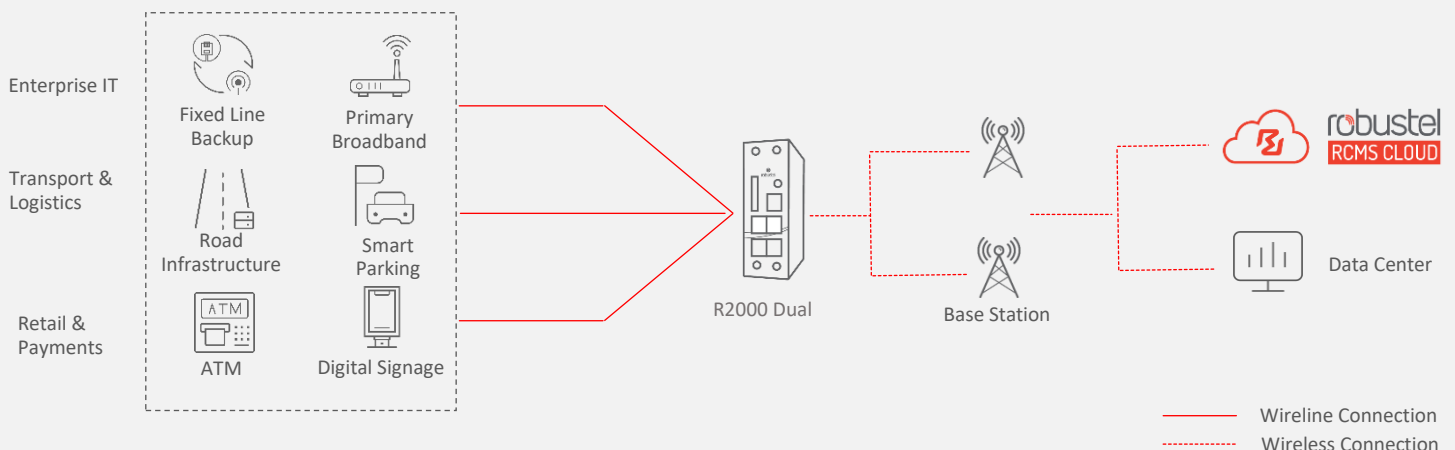
You can try Robustel's free router management platform by signing up here: https://rcms-cloud.robustel.net

robustel RCMS CLOUD

KEY FEATURES

➢ Embedded dual module supports two SIM cards online simultaneously

➢ Four fast Ethernet LAN port supporting Power over Ethernet (12.95 W of POE / 30 W of POE+ shared across the four LAN ports)

➢ The feature *Link Manager* supports Cellular WAN, WLAN link backup and ICMP detection

➢ WAN – Static/PPPoE/DHCP Client

➢ Wi-Fi supports AP mode and Client mode

➢ VPN tunnel - IPSec/OpenVPN/GRE/L2TP/ PPTP/DMVPN

➢ Auto reboot via SMS/Timing

➢ Supports RobustLink (a centralized M2M management platform for remote monitoring, configuration and firmware upgrade)

➢ Management and maintenance via Web user interface/CLI/SMS/RobustLink Cloud

➢ Supports various APP like QoS, DDNS, VRRP, Captive Portal, SNMP, WLAN multi, multi-language

➢ Robust industrial design (desktop or wall mounting or DIN rail mounting)

APPLICATION EXAMPLE

Enterprise IT

Fixed Line Backup

Primary Broadband

Transport & Logistics

Road Infrastructure

Smart Parking

Retail & Payments

ATM

Digital Signage

R2000 Dual

Base Station

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Data Center

—— Wireline Connection
------ Wireless Connection

SPECIFICATIONS

Cellular Interface

Standards	GSM/GPRS/EDGE/UMTS/WCDMA/HSPA/HSDPA/HSUPA/HSPA+/DC-HSPA+/LTE
LTE-FDD	Max. 150/50 Mbps (DL/UL) @20M BW Cat 4
LTE-TDD	Max. 100/50 Mbps (DL/UL)
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)
SIM	2 x Mini SIM (2FF)
Connector	SMA-K (2 x MAIN + 2 x AUX)

Ethernet Interface

Number of ports	1 x WAN and 4 x LAN (10/100 Mbps)
Magnet isolation protection	1.5 KV

Wi-Fi Interface

Standards	802.11b/g/n, supports AP and Client modes
Data speed	150 Mbps
Frequency bands	2.4 GHz
Security	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP
Connector	RP-SMA-K

Other Interfaces

POE (4 x LAN)	Four ports power supply output
	IEEE802.3 at/af standard compatibility
	Maximum power output up to 30W per port
	Power management function
	Voltage Range: 48 ~ 57 VDC
Digital Input (DI)	Level: 5 ~ 30V DC = HIGH, 0 ~ 1V DC = LOW
	Absolute maximum V DC: 30V

Others

Reset button	1 x RST
LED indicators	1 x RUN, 2 x PPP, 1 x USR, 2 x NET, 6 x RSSI

Software (Basic features of RobustOS)

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
Remote management	Web, CLI, SMS

App Center (Available Apps for RobustOS)

Apps*	L2TP, PPTP, DMVPN, VRRP, QoS, Captive Portal, WLAN Multi AP, SNMP, Language, RCMS

*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	3.5 mm terminal socket
Input voltage	9 ~ 57V DC
Power consumption	Idle: 100 mA@12V
	Data link: 800 mA (peak) @12V
	With ground screw

Physical Characteristics

Housing & Weight	Metal, 750 g
Dimensions	145 x 130 x 46 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: 2015/AC: 2016 (CE & RE) Class B
EMS	IEC 61000-4-2 (ESD) Contact Level 2; Air Level 3
	IEC 61000-4-3 (RS) Level 2
	IEC 61000-4-4 (EFT) Level 2
	IEC 61000-4-5 (Surge) Level 3
	IEC 61000-4-6 (Cs) Level 2

ORDERING INFORMATION

Model	PN	Number of Modules	Frequency Bands*	Country/Region	Certifications
R2000-D4L1	B015721	Single Module	**4G**: LTE FDD: B1/B3/B5/B7/B8/B20 LTE TDD: B38/B40/B41	EMEA	CE, UKCA
R2000-D4L2	B015723	Dual Module	**3G**: WCDMA: B1/B5/B8 **2G**: GSM: B3/B8	EMEA	CE, ICASA, UKCA
R2000-D4L1	B015722	Single Module	**4G**: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40	Oceania South America	RCM, CRC, SUBTEL
R2000-D4L2	B015724	Dual Module	**3G**: WCDMA: B1/B2/B5/B8 **2G**: GSM: B2/B3/B5/B8		

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

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