



# R1511 robustOS

Industrial Cellular VPN Router  
2 Ethernet + Wi-Fi + 1 SIM + 1 RS232/RS485



## INTRODUCTION

Robustel’s R1511 router is a Dual Ethernet port (LAN + WAN) 2G/3G/4G/LTE router with advanced software functions at a very competitive price point. The R1511 is a sister product of the R1510 series offering a choice of (3-wire) RS232 or (2-wire) RS485 INSTEAD of the Digital Input and Digital Output found on R1510 series. This means that RS232 and RS485 devices, including Modbus RTU equipment can connect to the internet directly through the R1511 router. Ethernet port 0 can be independently configured as WAN, LAN1 or LAN2 and Ethernet port 1 as LAN1 or LAN2.

At the heart of all of Robustel’s routers is the “**RobustOS**” operating System. With 5 years of maturity and innovative features, RobustOS offers customers a very professional product with an easy to navigate Graphical User Interface and the connection stability required by critical IoT applications. The router occupies a very small footprint which is useful for space-constrained applications such as bus signs, ticketing machines, vending machines, covert surveillance & digital signage applications.

The R1511 has many unique software innovations including, but not limited to:  
**RobustVPN** – innovative use of Open VPN tunneling to provide a fixed IP address on ANY SIM Card.  
**RCMS** – Robustel’s Cloud management platform – essential for managing an estate of routers – Basic version FREE.  
**Data Guard** – critical ‘failsafe’ that stops unexpected data overusage within seconds of a threshold being breached.  
**Smart Reboot** – essential backup solution for when your roaming SIM card doesn’t roam!

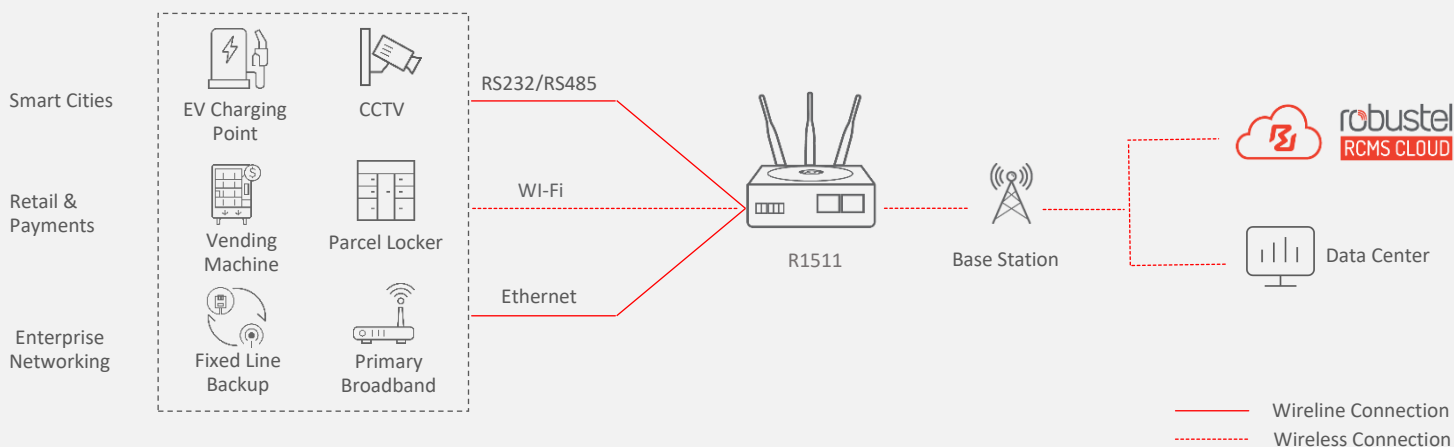
**RCMS** is Robustel’s free router monitoring service that is fully compatible with the R1511. You can try Robustel’s free router management platform by signing up here:  
<https://rcms-cloud.robustel.net>



## KEY FEATURES

- Dual Ethernet and choice of RS232 or RS485 port
- Modbus RTU to Modbus TCP Gateway built-in
- Ethernet, Wi-Fi and 4G internet connection options with auto-failover
- Free cloud management platform – RCMS
- Fully programmable Linux environment with excellent SDK Documentation
- ‘Smart Reboot’ for enhanced roaming SIM management
- RobustVPN provides fixed IP address on ANY SIM card
- Full SMS control for diagnosis and recovery from data network problems
- Very small footprint for space-constrained applications
- Wall-mount and DIN-rail mounting options available

## APPLICATION EXAMPLE



## SPECIFICATIONS

### Cellular Interface

Number of antennas	2 External antennas (MAIN + AUX)
Connector	SMA-K
SIM	1 Mini SIM (2 FF)

### 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

Number of antennas	2 (1 external antenna, 1 PCB antenna)
Connector	RP-SMA-K (External antenna)
Standards	802.11 b/g/n, supports 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

### Serial Interface

Type	1 x RS232 or 1 x RS485 (Hardware configuration)
Connector	3-pin 3.5 mm female socket
Baud rate	300 bps ~ 115200 bps

### Others

Reset button	1 x RST
LED indicators	1 x RUN, 1 x MDM, 1 x USB, 1 x RSSI, 1 x WLAN
Built-in	Watchdog, Timer

### Software (Basic features of RobustOS)

Network protocols	PPPoE, DHCP, NAT, DNS, 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

### 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](http://www.robustel.com)

### SDK

Supported programming languages	C, C++
Flash available for SDK	4 MB
RAM available for SDK	64 MB

### Power Supply and Consumption

Connector	2-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	Plastic, 150 g
UL 94	V-0, 5 VB
Dimensions	91.5 x 91.5 x 31.5 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
EMI	EN 55032: 2012/AC: 2013 (CE & RE) Class B
EMS	IEC 61000-4-2 (ESD) Contact Level 2 IEC 61000-4-3 (RS) Level 2 IEC 61000-4-4 (EFT) Level 2 IEC 61000-4-5 (Surge) Level 2 IEC 61000-4-6 (CS) Level 2

## ORDERING INFORMATION

Model	PN	Serial Port	LTE Category	Frequency Bands*	Country/Region	Certification (* In progress)
R1511-4L-A02EU-A	B061701	RS232	Cat 4	<b>4G:</b> LTE FDD: B1/B3/B7/B8/B20/B28A <b>3G:</b> WCDMA: B1/B8 <b>2G:</b> GSM: B3/B8	EMEA	CE, UKCA
R1511-4L-A02EU-B	B061702	RS485				
R1511-4L-A03AU-A	B061703	RS232	Cat 4	<b>4G:</b> LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40 <b>3G:</b> WCDMA: B1/B2/B5/B8 <b>2G:</b> GSM: B2/B3/B5/B8	Oceania	RCM
R1511-4L-A03AU-B	B061704	RS485				
R1511-4L-A04JP-A	B061711	RS232	Cat 4	<b>4G:</b> LTE FDD: B1/B3/B8/B18/B19/B26 LTE TDD: B41 <b>3G:</b> WCDMA: B1/B6/B8/B19	Japan	Telec, JATE
R1511-4L-A04JP-B	B061712	RS485				
R1511-4L-A05NA-A	B061709	RS232	Cat 4	<b>4G:</b> LTE FDD: B2/B4/B5/B12/B13/B14/B66/B71 <b>3G:</b> WCDMA: B2/B4/B5	North America	FCC, IC, PTCRB*, AT&T*, Verizon*
R1511-4L-A05NA-B	B061710	RS485				

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