

R1511

robustos

Industrial Cellular VPN Router

2 Ethernet + WiFi + 1 SIM + 1 RS232/RS485

MONTH SERVE MAN PRO

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.

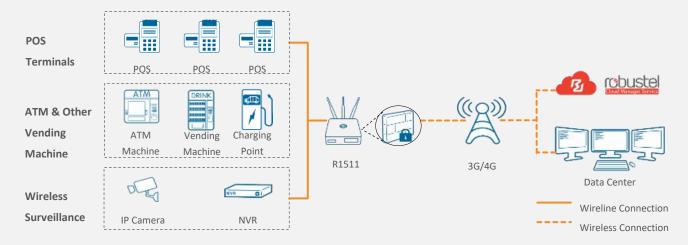
Data Guard – critical 'failsafe' that stops unexpected data overusage within seconds of a threshold being breached.

Smart Reboot – essential backup solution for when your roaming SIM card doesn't roam!

KEY FEATURES

- Dual Ethernet and choice of RS232 or RS485 port
- Modbus RTU to Modbus TCP Gateway built-in
- Ethernet, Wifi 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 spaceconstrained 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 x (3 V & 1.8 V) Standard SIM or eSIM

Ethernet Interface

Number of ports 2 x 10/100 Mbps, 2 x LAN or 1 x LAN + 1 x WAN

1.5 KV Magnet isolation

protection

(+/-1 dBm)

WiFi Interface

Number of antennas 2 (1 external antenna, 1 PCB antenna)

Connector RP-SMA-K (external antenna)

Standards 802.11b/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 RF output power 802.11b

> 802.11g 19 dBm 802.11n (20 MHz) 18 dBm 17 dBm

802.11n (40 MHz) Receiving sensitivity 802.11b -93 dBm (+/-1 dBm) 802.11g -90 dBm

> 802.11n (20 MHz) -88 dBm 802.11n (40 MHz) -85 dBm

19 dBm

Serial Interface

1 x RS232 or 1 x RS485 (Hardware configuration) Type

Connector 3-pin 3.5 mm female socket Baud rate 300bps to 115200bps

Others

1 x RST Reset button

LED indicators 1 x RUN, 1 x MDM, 1 x USR, 1 x RSSI, 1 x WLAN

Built-in Watchdog, Timer

SDK

Supported programming

C, C++, Linux Shell scripts

languages

Flash available for SDK 4MB RAM available for SDK 64MB Software (Basic features of RobustOS)

Network protocols PPPoE, TCP, UDP, DHCP, NAT, DNS, NTP, SMTP,

VLAN, SSH2, DDNS, etc.

VPN tunnel IPsec, OpenVPN, GRE

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

MAC address), Port Mapping, Access Control

Web, CLI, SMS Remote Management

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.

Power Supply and Consumption

Connector 2-pin 3.5 mm female socket

9 to 36V DC Input voltage Power consumption Idle: 100 mA@12 V

Data link: 500 mA (peak) @12 V

Physical Characteristics

Ingress protection IP30

Housing & Weight Plastic, 150g

Dimensions 91.5 x 91.5 x 31.5 mm

Installations Desktop, wall mounting and 35 mm DIN rail

mounting

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

Approvals

EN 55032: 2012/AC: 2013 (CE & RE) Class B EMI

IEC 61000-4-2 (ESD) Contact Level 2 **EMS**

> 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

*See ordering information for details about other certifications

ORDERING INFORMATION

Model	PN			Frequency Bands*				Certification
Model			Category	4G	3G	2G	Country	(* In progress)
R1511-4L-A02EU-A	B061701	RS232	CAT4	LTE FDD:	WCDMA: B1/B8	GSM: B3/B8	EMEA	CE
R1511-4L-A02EU-B	B061702	RS485		B1/B3/B7/B8/B20/B28A				
R1511-4L-A03AU-A	B061703	RS232	CAT4	LTE FDD:	WCDMA: B1/B2/B5/B8	GSM: B2/B3/B5/B8	Australia/ New Zealand	
R1511-4L-A03AU-B	B061704	RS485		B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40				RCM
R1511-4L-A07CN-A	B061705	RS232	CAT4	LTE FDD: B1/B3/B5/B8	WCDMA: B1/B8	GSM: B3/B8	China/India	
R1511-4L-A07CN-B	B061706	RS485		LTE TDD: B34/B38/B39/B40/B41				
R1511-4E-A10CN-A	B061707	RS232	CAT1	LTE FDD: B1/B3/B5/B8		GSM: B3/B8	China	
R1511-4E-A10CN-B	B061708	RS485	CATI	LTE TDD: B34/B38/B39/B40/B41		G3WI. B3/B6	Cillia	
R1511-4L-A05NA-A	B061709	RS232	CAT4	LTE FDD:	WCDMA: B2/B4/B5		North America	FCC*, Ic*, PTCRB*,
R1511-4L-A05NA-B	B061710	RS485		B2/B4/B5/B12/B13/B14/B66/B71				ATT*, Verizon*
R1511-4L-A04JP-A	B061711	RS232	CAT4	LTE FDD: B1/B3/B8/B18/B19/B26	WCDMA:		Japan	TELEC*, JATE*
R1511-4L-A04JP-B	B061712	RS485	CA14	LTE TDD: B41	B1/B6/B8/B19		Japan	ILLEC , JAIE

^{*} Please contact your sales representative for more detailed information on model numbers and for availability of "Global" routers.

