robustel

R1510 robustOS

Industrial Cellular VPN Router

2 Ethernet + 1 DI + 1 DO

INTRODUCTION

Robustel's R1510 router is a Dual Ethernet port (LAN + WAN) 3G/4G router with advanced software functions at a very competitive price point. The R1510 has many unique software innovations including, but not limited to:
RobustVPN – innovative use of OpenVPN 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!

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.

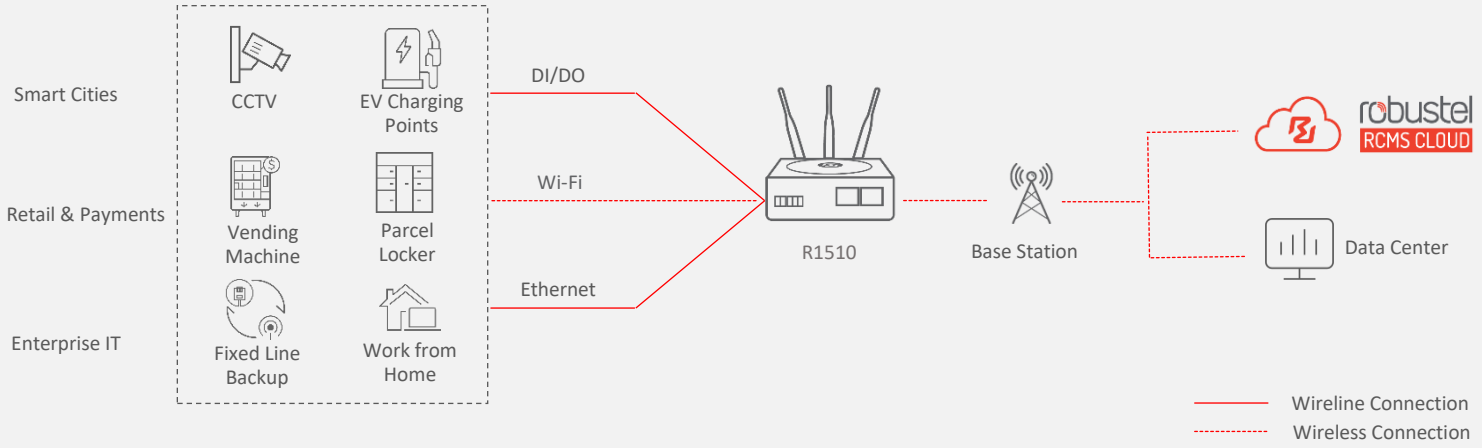
RCMS is Robustel's free router monitoring service that is fully compatible with the R1510. It allows customer to see a location overview of their routers quickly and simply on a map. Features such as data usage, signal strength, current network and much more can then be viewed on a per router basis. 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

- Highly stable 2G/3G/4G cellular connections
- 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 x External antenna, 1 x 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

DI/DO

Type	1 x DI (wet contact) + 1 x DO (wet contact)
Connector	3-pin 3.5 mm female socket
Absolute maximum VDC	30 VDC (DI/DO)
Absolute maximum ADC	20 mA

Others

Reset button	1 x RST
LED indicators	1 x RUN, 1 x MDM, 1 x USR, 1 x RSSI, 1 x Wi-Fi
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

**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	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 31.5mm
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 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	Category	Frequency Bands	Country/Region	Certifications (*In progress)
R1510-4L	B048701	Cat 4	**4G**: LTE FDD: B1/B3/B7/B8/B20/B28A **3G**: WCDMA: B1/B8 **2G:** GSM: B3/B8	EMEA	CE, ICASA, TRA, UKCA, CB
	B048703	Cat 4	**4G**: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40 **3G**: WCDMA: B1/B2/B5/B8 **2G**: GSM: B2/B3/B5/B8	South America Oceania	CRC, URSEC, RCM
	B048704	Cat 4	**4G**: LTE FDD: B1/B3/B8/B18/B19/B26 LTE TDD: B41 **3G**: WCDMA: B1/B6/B8/B19	Japan	Telec, JATE

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

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