R1510

robustOS

Industrial Cellular VPN Router

2 x Ethernet + 1 x SIM + 1 x DI + 1 x DO

INTRODUCTION

The Robustel R1510 router is a dual Ethernet port (LAN + WAN) 2G/3G/4G router that boasts advanced software functions at a highly competitive price point. It features several unique software innovations, including:

RobustVPN: An innovative use of OpenVPN tunneling that provides a fixed IP address on any SIM card.

RCMS: Robustel's cloud management platform, essential for managing a fleet of routers, with a basic version available for free.

At the core of all Robustel routers is the **RobustOS** operating system. With five years of development and innovative features, RobustOS delivers a professional product experience, complete with an easy-to-navigate graphical user interface and the connection stability required for critical IoT applications.The R1510 router's compact design makes it ideal for space-constrained applications, such as bus signs, ticketing machines, vending machines, covert surveillance, and digital signage.

The **Robustel Cloud Manager Service (RCMS)** is a unified cloud-based platform designed for real-time monitoring and centralized management of industrial IoT devices. Fully compatible with Robustel routers and gateways, RCMS delivers an interactive geospatial dashboard that enables users to visualize device locations and track critical metrics such as data usage, signal strength, and network status. To ensure seamless operations, the platform facilitates over-the-air (OTA) updates for firmware, configurations, and applications, minimizing downtime while optimizing system performance. Experience robust, cloud-native device management by registering at:
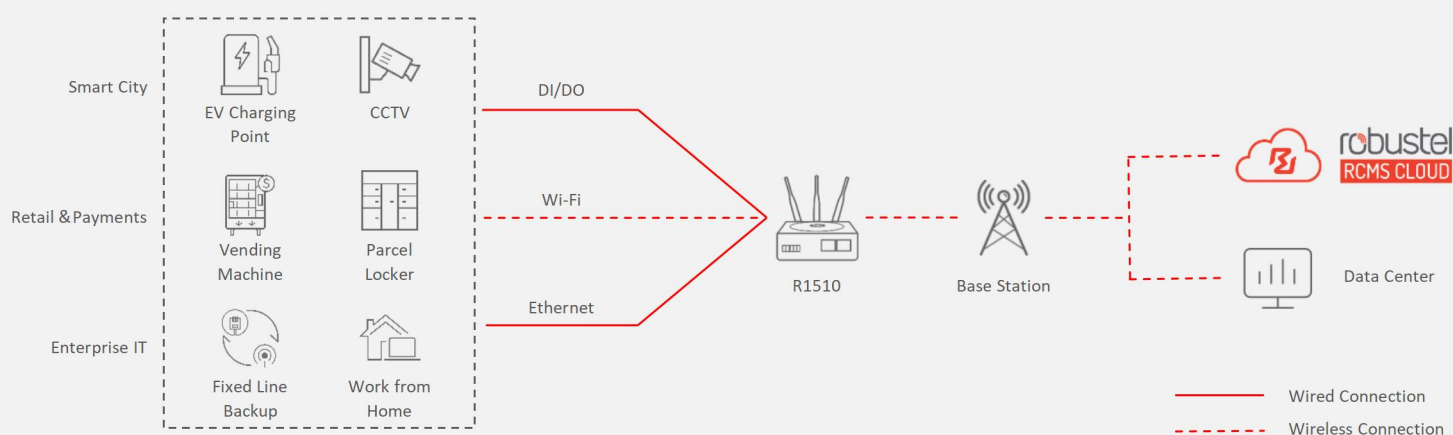https://rcms-cloud.robustel.net

robustel RCMS CLOUD

KEY FEATURES

➢ Highly stable 2G/3G/4G cellular connections

➢ Ethernet, Wi-Fi, and 4G internet connection options with auto-failover capability

➢ Free cloud management platform - RCMS

➢ Fully programmable Linux environment with comprehensive SDK documentation

➢ RobustVPN feature provides a fixed IP address on any SIM card

➢ Full SMS control for diagnostics and recovery from data network issues

➢ Compact design ideal for space-constrained applications

➢ Wall-mount and DIN-rail mounting options available

APPLICATION EXAMPLE

SPECIFICATIONS

Hardware System

CPU	MIPS, 650 MHz
RAM	128 MB
Flash	16 MB

Cellular Interface

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

Ethernet Port

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

Digital Input/Output Port

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

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, supporting AP and Client modes
Frequency bands	2.4 GHz
Security	WEP, WPA, WPA2, WPA3
Encryption	64/128 AES, TKIP

Others

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

Power Supply and Consumption

Connector	2-pin 3.5 mm female socket
Input voltage	12/24 V DC, 9 ~ 36 V DC
	Reverse polarity protection, surge protection
Power consumption	Idle: 1.5 W@12 V
	Max: 6.0 W@12 V
Recommended power supply	12 V DC/1.0 A power adapter

Physical Characteristics

Ingress protection	IP30
UL 94	V-0, 5 VB
Housing & Weight	Plastic, 150 g
Dimensions	31.5 x 91.5 x 91.5 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 (non-condensing)

Software (Basic features of RobustOS)

Network protocols	PPPoE, TCP, UDP, DHCP, NAT, DNS, NTP, SMTP, Telnet, VLAN, SSH2, DDNS, etc.
VPN tunnels	IPsec, OpenVPN, GRE, WireGuard
Firewalls	DMZ, anti-DoS, Filtering (IP/Domain name/MAC address), Port Mapping, Access Control
Remote management	Web, CLI, SMS
Routing	Static routing, Dynamic routing (BGP, OSPF v2, RIP v1/v2)

SDK

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

App Center (Available Apps for RobustOS)

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

Request on demand. For more Apps please visit www.robustel.com.

Cloud Platform

Robustel Cloud Manager Service (RCMS)	RobustLink, RobustVPN, Operation Console

Regulatory and Type Approvals

Environmental	RoHS2.0, WEEE
EMI	EN 55032 Conducted Emission Class B
	EN 55032 Radiated Emission Class B
EMS	EN 61000-4-2 (ESD) Contact Level 2, Air Level 3
	EN 61000-4-3 (RS) Level 2
	EN 61000-4-4 (EFT) Level 2
	EN 61000-4-5 (Surge) Level 3
	EN 61000-4-6 (CS) Level 2

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ORDERING INFORMATION

Model	Order Code	Frequency Bands**	Country /Region	Certification (*In Progress)	Package Contains
R1510-4L	A004800711	4G: LTE FDD: B1/3/7/8/20/28A 3G: WCDMA: B1/8 2G: GSM: B3/8	EMEA+SEA	CE ICASA TDRA UKCA CB E-Mark SIRIM NTC*	1 x R1510 Router (B Code: B048701)
	A004800712				1 x R1510 Router (B Code: B048701) 1 x DIN Rail Mounting Kit 1 x Cellular Antenna 1 x Wi-Fi Antenna 1 x Power Adapter
	A004800707				1 x R1510 Router (B Code: B048701)
	A004800713	4G: LTE FDD: B1/2/3/4/5/7/8/28 LTE TDD: B40 3G: WCDMA: B1/2/5/8 2G: GSM: B2/3/5/8	ANZ+LATAM	CRC URSEC RCM NOM SUBTEL MTC ENACOM ARCOTEL	1 x R1510 Router (B Code: B048703)
	A004800714				1 x R1510 Router (B Code: B048703) 1 x DIN Rail Mounting Kit 1 x Cellular Antenna 1 x Wi-Fi Antenna 1 x Power Adapter
	A004800723	4G: LTE FDD: B1/3/8/18/19/26 LTE TDD: B41 3G: WCDMA: B1/6/8/19	Japan	Telec JATE NTT Docomo	1 x R1510 Router (B Code: B004800718)
	A004800724				1 x R1510 Router (B Code: B004800718) 1 x DIN Rail Mounting Kit 1 x Cellular Antenna 1 x Wi-Fi Antenna 1 x Power Adapter
	A004800717	4G: LTE FDD: B1/3/5/7/8/20/28 LTE TDD: B38/40/41 3G: WCDMA: B1/5/8 2G: GSM:B3/8	EMEA+SEA	CE UKCA	1 x R1510 Router (B Code: B048709)
	A004800718				1 x R1510 Router (B Code: B048709) 1 x DIN Rail Mounting Kit 1 x Cellular Antenna 1 x Wi-Fi Antenna 1 x Power Adapter
R1510P-4L	A004800710	4G: LTE FDD: B1/3/7/8/20/28A 3G: WCDMA: B1/8 2G: GSM: B3/8	EMEA+SEA	CE UKCA	1 x R1510 Router (B Code: B004800717)

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