R1510

Industrial Cellular VPN Router
2 Eth + 1 SIM+1DI+1DO

INTRODUCTION

The Robustel Industrial Cellular VPN Router (R1510) is a rugged cellular router offering state-of-the-art mobile connectivity for machine to machine (M2M) applications.

R1510 is a powerful router developed from **RobustOS**, a Robustel self-developed and Linux-based operating system which is designed to be used in Robustel devices. The RobustOS includes basic networking features and protocols providing customers with a very good user experience. Meanwhile, Robustel offers a **Software Development Kit** (SDK) for partners and customers to allow additional customization by using C, Python or Java. It also provides rich **Apps** to meet fragmented IoT market demands.

Robustel is a leading global industrial IoT/M2M hardware and solution provider. Since its establishment in 2010 in Guangzhou, China, Robustel has been focusing on designing and manufacturing industrial cellular routers, gateways, modems, cloud platforms and E2E solutions. In order to support global business in more than 100+ countries and regions, Robustel has set up local offices in Germany, Australia, the Netherlands, the UK, Japan and Hong Kong.

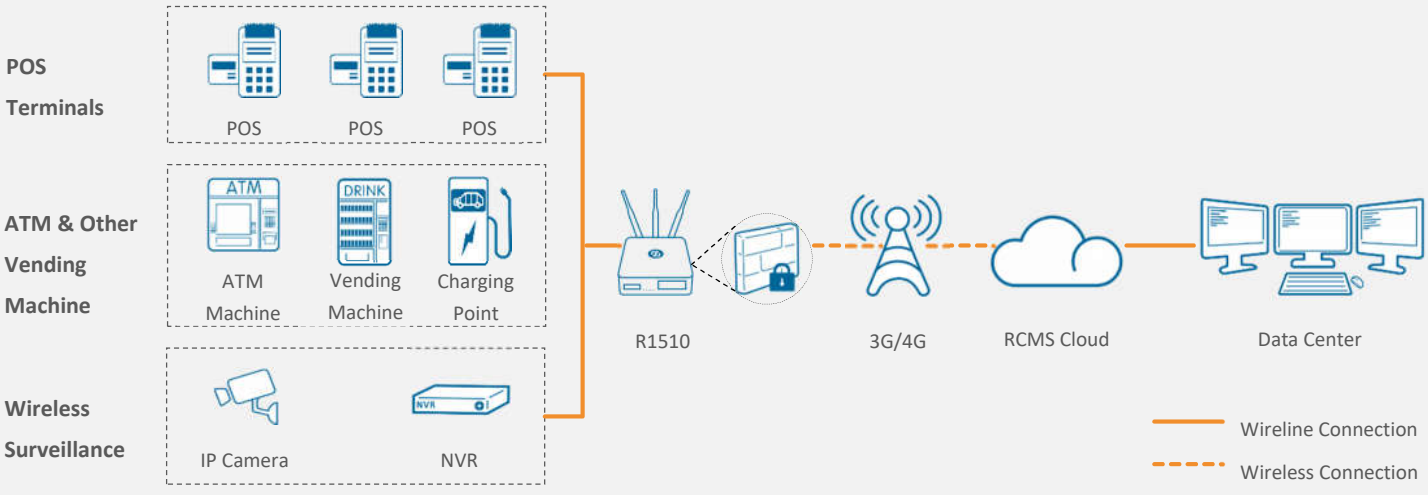
KEY FEATURES

- Support continuous 2G/3G/4G cellular network connections
- The feature *Link Manager* supports Cellular WAN, Ethernet WAN, WLAN WAN link backup and ICMP detection
- WAN – Static/PPPoE/DHCP Client
- RobustOS + SDK + App
- IPsec/OpenVPN/GRE/L2TP/PPTP/ DMVPN
- Management and maintenance via Web/CLI/SMS/RCMS Cloud
- Auto reboot via SMS/Timing
- Robust industrial design (9 to 26V DC, desktop or wall mounting or DIN rail mounting)

CERTIFICATIONS

CE,RCM, CCC(in plan)

APPLICATION EXAMPLE



SPECIFICATIONS

Cellular Interface

Number of antennas	2 external antenna(MAIN + AUX)
Connector	SMA-K
SIM	1 (3 V & 1.8 V) Standard SIM, eSIM optional

Ethernet Interface

Number of ports	2 x 10/100 Mbps, 2 x LAN or 1 x LAN + 1 x WAN
Magnet isolation	0.5 KV

WiFi Interface

Number of antennas	1 external antenna+ 1 internal 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*2 MIMO, 300 Mbps	
RF output power	802.11b	19 dBm
(+/-1 dBm)	802.11g	19 dBm
	802.11n (20 MHz)	18 dBm
	802.11n (40 MHz)	17 dBm
Receiving sensitivity	802.11b	-93 dBm
(+/-1 dBm)	802.11g	-90 dBm
	802.11n (20 MHz)	-88 dBm
	802.11n (40 MHz)	-85 dBm

DI/DO

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

Others

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

Software (Basic features of RobustOS)

Network protocols	PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP, HTTPs, DNS, ARP, 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
Management	Web, CLI, SMS

App Center (Available Apps for RobustOS)

Apps*	L2TP, PPTP, DMVPN, RobustVPN, VRRP, QoS, Captive Protal, WLAN Multi AP, SNMP, Language, RobustLink

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

Power Supply and Consumption

Connector	2-pin 3.5 mm female socket
Input voltage	9 to 26V DC
Power consumption	Idle: 100 mA@12 V
	Data link: 500 mA (peak) @12 V

Physical Characteristics

Ingress protection	IP30
Housing & Weight	Plastic, 200 g
Dimensions	91.5 x 91.5 x 30.8mm
Installations	Desktop, wall mounting and 35 mm DIN rail mounting

Regulatory and Type Approvals

Regulatory:	CE, RCM,CCC(in plan)
Environmental:	RoHS, 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	R1510-4L
Router Type	LTE Router
Air Interface	GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA/HSPA+/DC-HSPA+/ TD-SCDMA/CDMA (CDMA 1X/EVDO)/FDD LTE/TDD LTE/
Frequency Bands	EU: B1/B3/B7/B8/B20/B28 AU+LATAM: B1/B3/B5/B7/B8/B28, B40
4G*	CN+IN: B1/B3/B5/B8, B34/B38/B39/B40/B41
3G	WCDMA/HSDPA/HSUPA/HSPA+/DC-HSPA+: B1/B2/B5/B8 TD-SCDMA: B34/B39 CDMA (CDMA 1X/EVDO):BC0
2G	B3/B8
Operating Environment	-25 to +70 °C/5 to 95% RH

**For more information about 4G frequency bands in different countries, please contact your Robustel sales representative.*

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