



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.

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 R1510 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.

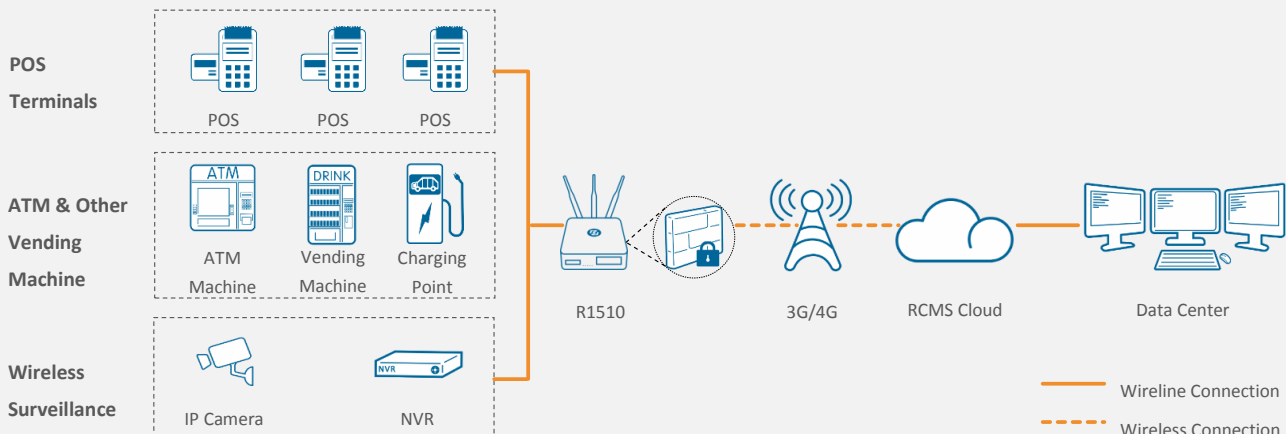
Smart Reboot – essential backup solution for when your roaming SIM card doesn't roam!

Robustel is a leading global industrial IoT/M2M hardware and solution provider. Since inception in 2010, Robustel has focussed on manufacturing and design of industrial cellular routers, gateways, modems, cloud platforms and end to end solutions. Robustel has set up local offices in Germany, Australia, the Netherlands, UK, Japan and Hong Kong and has a global distribution network providing a service in over 100 countries.

KEY FEATURES

- > Highly stable 2G/3G/4G cellular connections
- > 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 space-constrained applications
- > Wall-mount and DIN-rail mounting options available

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	1.5 KV

WiFi Interface

Number of antennas	1 external 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 (+/-1 dBm)	<table border="1"> <tr> <td>802.11b</td> <td>19 dBm</td> </tr> <tr> <td>802.11g</td> <td>19 dBm</td> </tr> <tr> <td>802.11n (20 MHz)</td> <td>18 dBm</td> </tr> <tr> <td>802.11n (40 MHz)</td> <td>17 dBm</td> </tr> </table>	802.11b	19 dBm	802.11g	19 dBm	802.11n (20 MHz)	18 dBm	802.11n (40 MHz)	17 dBm
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Receiving sensitivity (+/-1 dBm)	<table border="1"> <tr> <td>802.11b</td> <td>-93 dBm</td> </tr> <tr> <td>802.11g</td> <td>-90 dBm</td> </tr> <tr> <td>802.11n (20 MHz)</td> <td>-88 dBm</td> </tr> <tr> <td>802.11n (40 MHz)</td> <td>-85 dBm</td> </tr> </table>	802.11b	-93 dBm	802.11g	-90 dBm	802.11n (20 MHz)	-88 dBm	802.11n (40 MHz)	-85 dBm
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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	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
Management	Web, CLI, SMS

App Center (Available Apps for RobustOS)

Apps*	L2TP, PPTP, DMVPN, RobustVPN, VRRP, QoS, Captive Portal, WLAN Multi AP, SNMP, Language, RobustLink
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*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, 150 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
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 CN+IN: B1/B3/B5/B8, B34/B38/B39/B40/B41
4G*	
3G	WCDMA/HSDPA/HSUPA/HSPA+/DC-HSPA+: B1/B2/B5/B8 TD-SCDMA: B34/B39 CDMA (CDMA 1X/EVDO):BC0
2G	B3/B8
Operating Temperature	-25 to +70 °C
Storage Temperature	-40 to +85 °C
Relative Humidity	5 to 95% RH

* Please note that the different LTE frequency bands are model dependent and not all 4G frequencies are currently supported on a single model of R1510 router.

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

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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