



R1520

robustOS

Industrial Dual SIM Cellular VPN Router
Suitable for 2G, 3G, 4G networks



INTRODUCTION

The Robustel industrial dual sim card VPN Router (R1520) is a rugged cellular router can support 2G, 3G, and 4G LTE Cat 4 networks. It provides high-speed wireless network bandwidth for devices through wireless connections to ensure stable wireless network connections.

R1520 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.

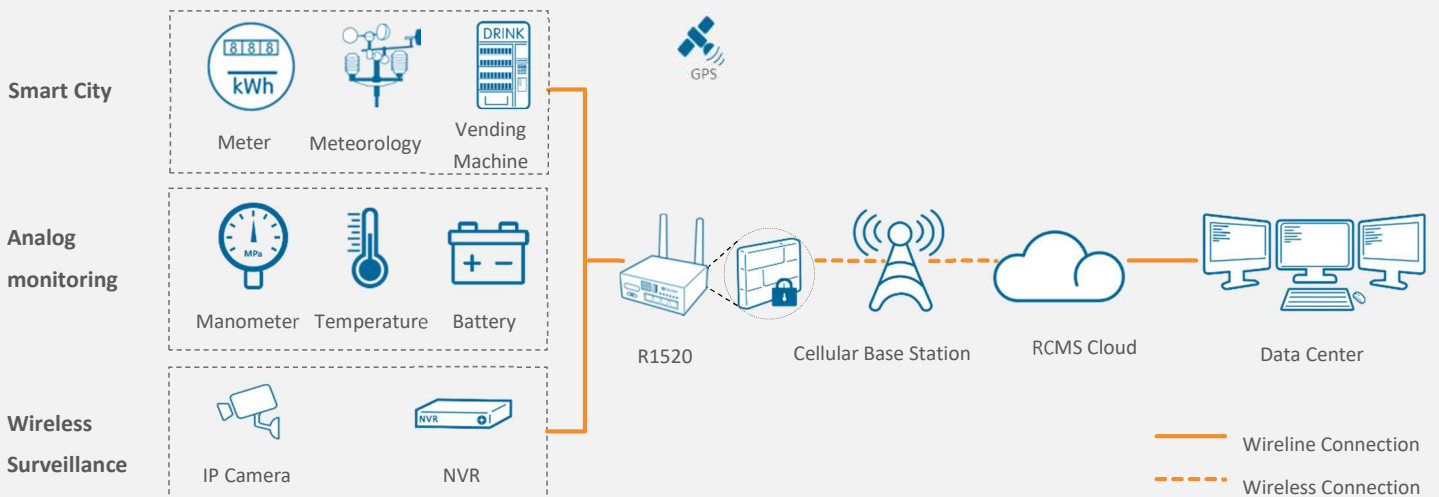
KEY FEATURES

- > Support DI + DO + AI
- > RobustOS + SDK + App
- > 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
- > 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 36V DC, desktop or wall mounting or DIN rail mounting)

CERTIFICATIONS

CE, FCC, RCM, CCC (in plan)

APPLICATION EXAMPLE



SPECIFICATIONS

Cellular Interface

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

Ethernet Interface

Number of ports	5 x 10/100 Mbps, 4 LAN + 1 x WAN
WAN port	Supporting 802.3 af PD feature (optional)
Magnet isolation	3 KV

WiFi Interface

Number of antennas	2 external antenna
Connector	RP-SMA-K
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

DI/DO

Type	1 x DI (wet contact) + 1 x DO (wet contact)
Interface	2*3 pin 3.5 mm female socket
Absolute maximum VDC	30V DC (DI/DO)
Absolute maximum ADC	20mA(DI/DO)

AI

Type	Voltage type or Current type
Connector	2*3 pin 3.5 mm female socket
Absolute maximum VDC	0 to 24V DC
Absolute maximum ADC	4 to20 mA

Serial Port

Type	1 x RS232 + 1 x RS485
Connector	2*4 pin 3.5 mm female socket
Baud rate	300bps to 115200bps

Others

USB	1 x 480Mbps USB2.0
RTC	The backup battery can last for 2 days
Reset button	1 x RST button
LED indicators	1 x RUN, 1 x MDM, 1 x USR, 1 x RSSI, 1 x WiFi
Built-in	Watchdog, Timer

GPS(Optional)

Number of antennas	1 external antenna
GNSS technology	GPS, QZSS, GLONASS, Galileo
Connector	RP-SMA-K
Tracking sensitivity	Greater than -148 dBm
Horizontal position accuracy	5 m

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 Portal, 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 with lock
Input voltage	9 to 36V 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	105 x 90 x 46 mm
Installations	Desktop, wall mounting and 35 mm DIN rail mounting

Approvals

Regulatory	CE, FCC, RCM, CCC (in plan)
Environmental	RoHS, WEEE
EMI	EN 55032: 2012/AC: 2013 (CE & RE) Class B
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 IEC 61000-4-11 (DIP) Level 2

ORDERING INFORMATION

Model	R1520-4L
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	Global: B1/ B2/B3/B4/B5/B7/B8/B12/ B13/B18/B19/B20/B25/B26/B28, B38/B39/B40/B41 AU: B1/B2 ^① /B3/B4/B5/B7/B8/B28, B40 4G* EMEA: B1/B3/B7/B8/B20/B28A CN: B1/B3, B38/B39/B40/B41
3G	Global: WCDMA B1/B2/B4/B5/B6/B8/B19 AU: WCDMA B1/B8 EMEA: WCDMA B1/B8 CN: WCDMA B1, TD-SCDMA B34/B39, CDMA2000 1x/EVDO BC0
2G	Global: B2/B3/B5/B8 AU: B2/B3/B5/B8 EMEA: B3/B8 CN: B3/B8
Operating Environment	-25 to +70 °C/5 to 95% RH

①: LTE B2 of AU does not support Rx-diversity

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