



R1511e

Industrial Cellular VPN Router

2 x Ethernet + 2 x Wi-Fi + 1 x eSIM + 1 x RS-232/RS-485



INTRODUCTION

The Robustel R1511e is a compact industrial LTE router designed to connect both Ethernet and serial equipment using fully embedded eSIM - with no physical SIM slots to manage. Built on the proven R1511 platform, the R1511e replaces the physical SIM slot with an embedded MFF2 eSIM with GSMA SGP.22 compliant, enabling simplifies international deployment, subscription management, and long-term device lifecycle operations.

Robustel Cloud Manager Service (RCMS) is a cloud-based platform for real-time monitoring and centralized management of Robustel routers and gateways. With Zero-Touch eSIM Provisioning, RCMS allows enterprises to remotely assign and activate eSIM profiles at scale - overcoming the industry limitation where SGP.22 cannot support mass deployment on its own. This capability eliminates manual SIM handling, reduces on-site labour, and accelerates global rollouts.

Unlike traditional physical SIM routers, the R1511e introduces a set of advanced eSIM capabilities designed to accelerate global IoT rollout and reduce operational friction:

- **Global Frequency Band Support:** ensuring consistent performance across major regions and simplifying cross-border for OEMs and system integrators.

- **Robust and Secure eSIM Profile Management:** supports remote enable/disable and profile switching, allowing operators and enterprises to optimise connectivity and reduce reliance on physical SIM logistics.

- **Auto Failsafe Recovery:** When profile download or activation fails, the device automatically rolls back to the previous working profile, ensuring continuous connectivity and preventing remote provisioning failures.

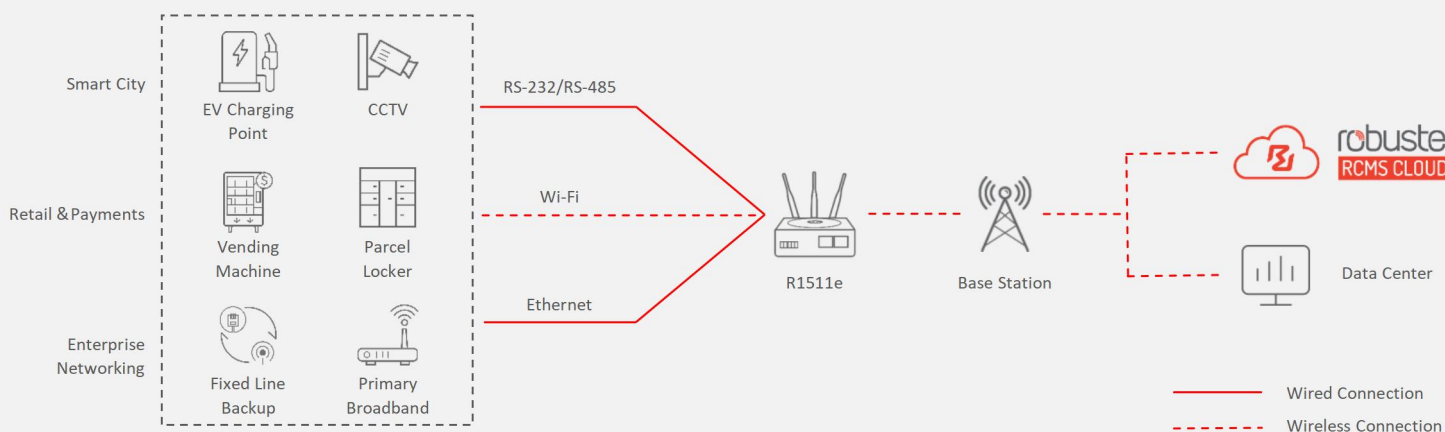
- **Enhanced lifecycle management:** eSIM profile rotation reduces dependence on long-term roaming agreements and mitigates SIM-card-swap maintenance tasks.

KEY FEATURES

- MFF2 eSIM supported for zero-touch deployment
- GSMA SGP.22 compliant for global IoT provisioning
- Dual Ethernet ports with a choice of RS-232 or RS-485
- Built-in Modbus RTU to Modbus TCP gateway
- Ethernet, Wi-Fi, and 4G internet connection options with automatic failover
- Free cloud management platform - RCMS
- RobustVPN provides a fixed IP address on any eSIM
- 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 x external antennas (MAIN + AUX)
Connector	SMA-K
SIM	1 x eSIM (MFF2) SGP.22 eSIM, profile download and removal operations Typically supports up to 8 eSIM profiles

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

Serial Port

Number of ports	1 x RS-232 or 1 x RS-485 (hardware configuration)
Connector	3-pin 3.5 mm female socket
Baud rate	300 bps ~ 115200 bps

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	AES, TKIP

Others

Reset button	1 x RST
LED indicators	1 x RUN, 1 x MDM, 1 x USB, 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 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
Serial port protocols	Transparent, TCP Client/Server, UDP, Modbus RTU Gateway
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.
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*Request on demand. For more Apps please visit www.robustel.com.

Cloud Platform

Robustel Cloud Manager Service (RCMS)	RobustLink, RobustVPN, Operation Console
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Regulatory and Type Approvals

Environmental	RoHS2.0
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 (AC Port) EN 61000-4-6 (CS) Level 2

ORDERING INFORMATION

Model	Order Code	Serial Port	eSIM	Frequency Bands*	Country /Region	Certification	Package Contains
R1511e-4L-A35GL-A	A006100755	RS-232	v	LTE CAT4 4G: LTE FDD: B1/2/3/4/5/7/8/12/13/18/19/ 20/25/26/28/66 LTE TDD: B38/39/40/41 3G: WCDMA: B1/2/4/5/6/8/19 2G: GSM: B2/3/5/8	Global	CE UKCA RCM FCC IC	1 x R1511e Router (B Code: B006100749)
	A006100756						1 x R1511e Router (B Code: B006100749) 1 x DIN Rail Mounting Kit 2 x Cellular Antenna 1 x Wi-Fi Antenna 1 x Power Adapter
R1511e-4L-A35GL-B	A006100758	RS-485	v				1 x R1511e Router (B Code: B006100750)
	A006100759						1 x R1511e Router (B Code: B006100750) 1 x DIN Rail Mounting Kit 2 x Cellular Antenna 1 x Wi-Fi Antenna 1 x Power Adapter

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