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More Product Information

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ROBUSTEL PRODUCT CATALOGUE

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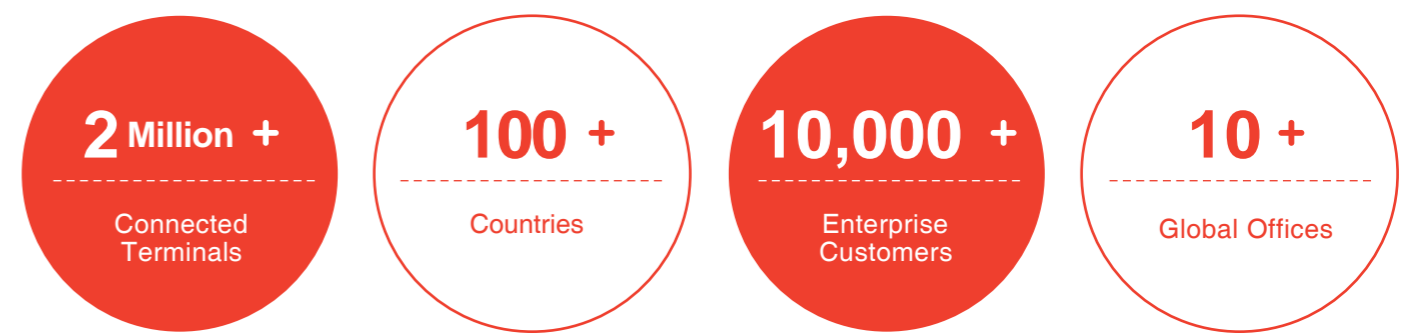


01 Company Overview

Company Introduction

Robustel is a cellular router & Gateway manufacturer specialising in 5G, 4G/LTE & LPWAN devices. Our products are used in smart cities, transportation, utilities, energy, Industrial IoT and many other applications to deliver robust and reliable connectivity.

Data Highlights



Brand Philosophy

Robustel" is composed of "Robust" and "Tel". "Robust" represents robustness in automation systems, which refers to the high reliability and robustness of the system, while "Tel" represents communication. Together, it means that Robustel provides highly reliable and robust communication products and systems in the industrial internet of things (IIoT). At a macro level, the people at Robustel are highly reliable and trustworthy, and the products and services they design must also be highly reliable.

Why Choose Robustel?



Combination of Hardware & Software

High-reliability industrial grade cellular routers & gateways at a very competitive price point.



Free Device Platform

Free MS-Azure based device management platform with all products. Unique and powerful management features in advanced version.



Customization

In-house router OS development allows for fast customization and OEM branding.



Guaranteed Security

Excellent Cybersecurity practices including independent penetration testing on all software components.



Globalization

Supplying 100+ countries, with over 50 distribution partners to provide high quality localized service.

Turnkey Manufacturing Facilities

Robustel's "Smart Factory" was developed from the ground-up in 2018 with full software and hardware design capabilities. Robustel developed MES systems based on "lean production" idea, which created an intelligent infrastructure for a data-driven, green and flexible supply-chain. Also, multiple SMT lines give Robustel complete control over production scheduling and QA of the manufactured products. These facilities are regularly used to deliver fully or semi-bespoke OEM products along with simple EMS capabilities.

1 Intelligent Automated Production Line



2 Digital Twin Screen



3 Digital Process



Robustel Industrial IoT Product

Main Product

Industrial Wireless Communication Device

Edge Computing Gateway

Agriculture, Enterprise IT, Industrial IoT, Transport & Logistics, Smart Cities, Healthcare, Oil, Gas & Mining, Retail & Payments, Energy & Utilities, Environmental IoT

Make Things Connected

Typical Applications

Energy & Utilities

Managing the reading, collection and distribution of traditional and renewable resources for consumer and business use.



Smart Cities

Empowering councils and governments with connectivity for infrastructure, buildings, public spaces and traffic management.



Transport & Logistics

In-Vehicle internet access for fleet management, logistics, public Wi-Fi, security and telematic data.



Industrial IoT

Monitoring & managing assets, equipment and infrastructure in manufacturing, warehousing and construction.



Oil, Gas & Mining

Employing remote control and management to improve safety and efficiency around the extraction of primary resources.



Enterprise IT

Primary internet access or fixed line failover connectivity for distributed office, retail or branch environments.



Retail & Payments

Wireless Monitoring and Communications for ATMs, Vending Machines, Kiosks, Digital Signage and Point of Sale systems.



Agriculture

Using sensing & wireless technology to improve irrigation, fertilization, yield and more in agriculture and farming.



Environmental IoT

Environmental protection solutions for local conditions to realize intelligent environmental monitoring, disaster prevention and environmental compliance.



Healthcare

Powering remote diagnostics, telemedicine solutions through wireless communications.





02 Product Overview

Software

Operating System

RobustOS

RobustOS is Robustel's proprietary router operating system. Built from the ground up around the Linux Kernel, RobustOS allows for lightweight firmware and application delivery across the Robustel product range.

RobustOS dovetails seamlessly with Robustel's free Microsoft Azure based router management platform - RCMS, allowing easy management of thousands or even millions of routers through a 'single pane of glass'.



Security

RobustOS has been penetration tested by UK Cybersecurity experts Nettitude and shown to have ZERO VULNERABILITIES.



Market Proven Reliability

More than 2 Million RobustOS devices have been deployed globally.



App Centre

The 'App Centre' is an integral part of RobustOS, allowing bespoke applications to be quickly and reliably added into mainstream firmware branches.



SDK

For additional flexibility and customization, you can create your own RobustOS Apps with the RobustOS SDK in C.



Advanced Features

RobustOS has evolved to include many unique or advanced features that are useful for IoT and Enterprise applications alike.

RobustOS Pro

RobustOS Pro is Robustel's powerful Debian based operating system with support for Docker based applications. RobustOS Pro is used in EG5000 series Gateways to provide communication and computing in a single box.

Customers can rapidly port, test and deploy new applications in whatever language they are comfortable developing in, in addition to giving customers access to over 50,000 existing applications in the Debian repository.



User-friendly Web UI

RobustOS Pro features a colourful and easy to use Web UI providing a simple configuration interface for basic router functions. Power users can directly access the Debian CLI through SSH for low-level device control.



Docker & Other Containerisation

RobustOS PRO leverages high performance ARM CPUs that can natively manage Docker & other containerization tools for quick and easy software redeployment.



Security & Reliability

Secure boot (Optional)
Signature verification for system updates
Penetration tests by Nettitude (planned)



Flash Manager

RobustOS Pro allows use of resource intensive 3rd party applications. Users can utilize "Flash Manager" to make sure the regularity of writes to the Flash memory (eMMC NAND Flash) will not cause excessive wear and early device failure.

Software

Device Management Platform

ROBUSTEL CLOUD MANAGER SERVICE

Robustel Cloud Manager Service (RCMS) is an excellent Microsoft Azure based IoT cloud platform designed to work with RobustOS/RobustOS Pro based routers and gateways to help realise the true potential of Robustel products. It provides customers with comprehensive gateway monitoring, management and control features including a fully integrated VPN service.



robustel RCMS CLOUD	RCMS BASIC Monitor your fleet of Robustel devices from anywhere in the world	RCMS ESSENTIALS Manage and control your Robustel devices from any network or location	RCMS ADVANCED Secure cloud based VPN access to your Robustel devices and end devices	RCMS FREE TRIAL Any new Robustel device connecting to RCMS for the first time gets 3 months free
Included Features				
Device Overview Dashboard	Yes	Yes	Yes	Yes
Device Status & Statistics	Yes	Yes	Yes	Yes
Device Location (GPS or Cell)	Yes	Yes	Yes	Yes
Custom Report Generation & Export	Yes	Yes	Yes	Yes
Syslog & Debug Data	Yes	Yes	Yes	Yes
Over-the-Air (OTA) Provisioning & Updating	X	Yes	Yes	Yes
Zero-Touch & Bulk Provisioning & Updating	X	Yes	Yes	Yes
Configuration Management (CLI or GUI)	X	Yes	Yes	Yes
Remote Actions (Speed Test, I/O Control, etc)	X	Yes	Yes	Yes
VPN Access to Single/Group of Devices	X	X	Yes	Yes
Desktop Client to Site VPN Access	X	X	Yes	Yes

24/7 Cloud SaaS Device Management - RCMS Cloud



RCMS Cloud is a shared public cloud deployment of RCMS available to all Robustel customers.

Environment

Hosted by Robustel in partnership with Microsoft Azure for enhanced scalability and security options.

Available Apps



Price Model

OPEX with tiered pricing per device based on features required.

Customization

- Custom APPs & Features available from APP Centre
- Custom APP development available with restrictions

Advantage

- Free Read-Only basic access for all customers
- No need for hosting or third-party integration costs
- Standardized Code Base updated regularly for security, bugs and new features.
- Microsoft Azure Active Directory and IoT Hub Integration.
- Connected to the Robustel App Centre to send the latest firmware and RobustOS APPs directly to devices.

Locally Hosted Device Management - RCMS Stack



RCMS STACK is a private version of the RCMS platform packaged and installed in a customers environment.

Environment

Hosted by the customer in their environment of choice; Either a local server, physical data centre or cloud provider.

Available Apps



Price Model

CAPEX Set-up + Annual OPEX fee (Customer owned Infrastructure Cost)

Customization

- Custom APPs & Features available on request
- OEM Software Development options available at cost

Advantage

- Custom URL & Destination Server
- Standardized Code Base updated regularly for security, bugs and new features.
- Data stored locally
- Ports can be restricted for 'Local operation'
- Becomes more cost effective at high device volumes as long as infrastructure is maintained.

Empower Your Devices with Cloud Management



Monitor

The RobustLink App inside RCMS gives you visibility of your entire Robustel device fleet in a single location from anywhere in the world. View device status, signal strength, data usage and WAN details for any device connected to the platform at the touch of a button.

Management Dashboard

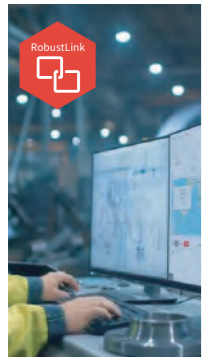
Total Devices Online/Offline | Devices by Connection Type | Total Devices by Group | Total Devices by Model | Total Devices by Cellular Carrier.

Individual Device Statistics

Online/Offline Status | Connection Type & Link Details | Signal Strength | Data Usage | Location (GPS, Cellular or Manual) | Installed Apps & Firmware.

Remote Syslog

Enable/Disable Syslog features remotely and export them for analysis.



Manage

Use the RobustLink App inside RCMS to access your devices remotely to change configuration parameters or send device commands through remote Command Line Interface (CLI) access. Maintain your fleet through Over-the-Air (OTA) updates for Firmware, Apps and Configuration files in bulk or for a single device.

Over-the-Air (OTA) Updates

Update Firmware, RobustOS Apps and XML config files.

Remote Command Line Interface (CLI)

Configure any device connected to RCMS using the CLI without the need for a fixed/addressable IP Address.

Remote Reboot

Remote actions allow you to automatically reboot a batch of devices or a single unit with the press of a button.



Control

Use the RobustVPN App inside RCMS to create a virtual LAN for your devices that can be accessed securely from anywhere in the world using the preconfigured desktop VPN client.

Access groups of devices through a single VPN

Configure VPN groups within RCMS to control the devices and users that are allowed to access your virtual network.

Controlled VPN Usage

Use RCMS to control when your virtual network is available. Configure your VPN to be always available or only when needed to reduce network traffic.

VPN Traffic Logging

VPN Traffic logs allow you to pinpoint problem devices quickly and efficiently.

Hardware

Industrial Edge Computing Gateway

Robustel's Edge Computing Gateways combines all the benefits of Robustel's tried and tested RobustOS operating system with a Debian embedded computer to create the ultimate hybrid product Comms & Compute all in one box.

The Dual OS design uses RobustOS Pro to make router management easy whilst allowing the User to access the underlying Debian OS from the command line to install new or existing 3rd party applications on the same hardware.

Robustel's Edge Computing Gateways equipped CPU(s) use the same instruction as the ubiquitous Raspberry Pi computer powered by ARM architecture meaning all existing applications can be easily ported to Edge Computing Gateways, optionally using Docker containerization.

Robustel EG5200

Advanced Industrial IoT Edge Gateway

With a quad core 1.6 GHz Cortex A53 CPU and an integrated NPU of 2.3 TOPS that greatly accelerate machine learning inference, Robustel EG5200 will take the compute power to the next level, best for the edge computing and edge AI applications, can also be used as a combination of cellular router + embedded PC in all the industrial field.



AI Computing Capability	Equipped with an NPU with a computing power of 2.3 TOPs, it can support high-speed image recognition and video data processing.
Powerful Hardware Performance	High performance compute engine with 1.6 GHz CPU +32 GB eMMC Flash for running complex applications
RCMS Cloud-based Router Management Platform	RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.
Supports HDMI	Equipped with an HDMI high-definition image interface for high-bandwidth image transfer in industrial settings.

Hardware			
Cellular	5G SA/NSA (Optional), 4G/LTE, 3G WCDMA, 2G GSM	Ethernet Port	5 x RJ45, 10/100/1000Mbps
CPU	i.MX 8M Plus, 4 Core Cortex-A53, 1.6 GHz, equipped NPU with up to 2.3 TOPS	Serial Port	2 x RS485/RS422/RS232 software configurable, 1 x RS232 console
Memory	4 GB DDR4	DI/DO	2 x DI, 2 x Relay Output
Flash	32 GB EMMC	USB	2 x USB 3.0 (host), Type A, 5V 900mA 1 x USB 3.0 (device), Type C
Housing	Metal	GNSS (incl.GPS)	Optional
Dimension	60 x 105 x 128	SIM Card Slot	2
Operating Temperature	-40 to +75 °C	microSD	Yes, SDXC standard
Power Supply	9 ~ 60V	Video	1 x HDMI 2.0
Wi-Fi	Optional, Wi-Fi 6		
BT	Bluetooth 2.1/3.0 + EDR + Bluetooth 5.2		

IoT Applications



Industrial IoT



Smart Cities



Healthcare

Robustel EG5120

5G High Performance Industrial Edge Computing Gateway

Robustel's EG5120 is a new generation of industrial edge computing gateway, supporting global 5G/4G/3G/2G networks for cellular backhaul, with a fully-fledged Debian 11 (bullseye) based operating system able to support thousands of existing or new ARMv8 (Raspberry Pi compatible) based applications.



High Speed Connection

Robustel's 5G routers support 5G Release 16 with fast DL/UL speeds in NSA/SA modes. 4G+ Carrier Aggregation ensures fast connections without 5G.

Powerful Hardware Performance

The iMX.8M.Plus high-performance hardware platform provides a strong foundation for information processing and complex task handling.

AI Computing Capability

Equipped with an NPU with a computing power of 2.3 TOPs, it can support high-speed image recognition and video data processing.

Supports Docker

Robustel's Docker containerisation allows easy porting of software to EG5000 series Gateways from other platforms.

Hardware

Cellular	5G SA/NSA, 4G/LTE, 3G WCDMA	BT	Bluetooth 2.1/3.0 + EDR + Bluetooth 5.2
CPU	i.MX 8M Plus, 4 Core Cortex-A53, 1.6 GHz, equipped NPU with up to 2.3 TOPS	Ethernet Port	2 x RJ45, 10/100/1000Mbps
Memory	2 GB DDR4	Serial Port	2 x RS232/RS485, Software configurable
Flash	16 GB eMMC	DI/DO	2 x DI, 2 x DO, wet contact
Housing	Metal, 568g	USB	1 x USB 3.0 (host), Type A, 5V 900mA
Dimension	49 x 105 x 128 mm	GNSS (incl.GPS)	Optional
Operating Temperature	-40 to +70 °C	SIM Card Slot	2
Power Supply	9 ~ 60V	microSD	Support, up to 256GB
Antenna Interface	4 x Cellular Antenna, 2 x Wi-Fi Antenna		
Wi-Fi	2.4 GHz: Up to 300 Mbps - 2 x 2 MIMO, 5 GHz: Up to 866.7 Mbps (80 MHz Band)		

IoT Applications



Smart Cities



Industrial IoT



Healthcare

Robustel EG5100

Industrial Edge Computing Gateway

Robustel's EG5100 is a new generation of industrial edge computing gateway, supporting global 4G/3G/2G networks for cellular backhaul, with a fully-fledged Debian 11 (bullseye) based operating system able to support thousands of existing or new ARMv7 (Raspberry Pi compatible) based applications.



Cost-effective Hardware

Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.

Extensive International Certifications

Robustel heavily invests in global certifications for Robustel's Global IoT Router, making it one of the most certified worldwide.

Dual SIM Card Design

Dual SIM backup enhances network resilience - 2 networks are better than 1!

Serial Ports & Digital IO Onboard

Equipped with multiple Ethernet ports. Built-in network switch to meet the needs of multi-device access.

Hardware			
Cellular	4G/LTE, 3G WCDMA, 2G GSM	BT	Bluetooth 2.1/3.0 + EDR + Bluetooth 5.2
CPU	i.MX 6ULL, ARM Cortex-A7, 792MHz	Ethernet Port	2 x RJ45, 10/100Mbps
Memory	1GB DDR3	Serial Port	2 x RS232/RS485 (software configurable) Or 1 x RS232/RS485(software configurable) + 1 x CAN
Flash	8 GB eMMC		
Housing &Weight	Metal, 567g	DI/DO	2 x DI, 2 x DO, wet contact
Dimension	49 x 105 x 128 mm	USB	1 x USB 2.0 (host), Type A, 5V 500mA
Operating Temperature	-40 to +70 °C	GNSS (incl.GPS)	Optional
Power Supply	9 ~ 60V	SIM Card Slot	2
Antenna Interface	2 x Cellular Antenna, 2 x Wi-Fi Antenna, 1 x GPS Antenna (Optional)		
Wi-Fi	2.4 GHz: up to 300 Mbps, 5 GHz: up to 866.7 Mbps		

IoT Applications



Energy & Utilities



Industrial IoT



Smart Cities

Robustel EG5101

Industrial IoT Edge Gateway

Robustel's EG5101 is a new industrial edge computing gateway, supporting 4G Cat 1 network for cellular backhaul, with a fully-fledged Debian 11(bullseye) based operating system able to support thousands of existing or new ARMv7 (Raspberry Pi compatible) based applications.



Cost-effective Hardware

Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.

Powerful Hardware Performance

With a 792 MHz i.MX 6ULL CPU, EG5101 can be used as a combination of cellular router + embedded PC for IoT applications.

RobustOS Pro Operating System

Running on Debian-based RobustOS Pro with enhanced cybersecurity, advanced GUI and a myriad of software features

RCMS Cloud-based Router Management Platform

RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.

Hardware

Cellular	4G/LTE	Power Supply	9 ~ 36V
CPU	i.MX 6ULL, ARM Cortex-A7, 792MHz	Antenna Interface	1 x Cellular Antenna
Memory	512MB / 1GB DDR3	Ethernet Port	1 x RJ45, 10/100Mbps
Flash	8 GB EMMC	Serial Port	1 x RS232 and 1 x RS485
Housing & Weight	Metal, TBD	USB	1 x USB 2.0 (host), Type A, 5V 500mA
Operating Temperature	-20°C to +70°C	SIM Card Slot	2

IoT Applications



Industrial IoT



Smart Cities



Energy & Utilities

Hardware

Vertical Gateway

Robustel EV8100

Elevator Voice Gateway

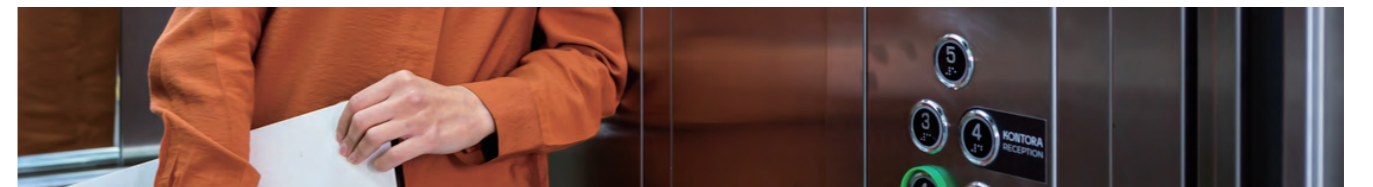
Robustel's EV8100 is an advanced elevator voice gateway that supports voice transmission over VoIP and VoLTE, enabling seamless communication between a cellular network and the elevator's intercom system. With its advanced features and robust design, the EV8100 is a reliable and essential safety solution for any modern building.



- Serial Ports & CAN** | Allow customers to connect with different sensors and controllers in the elevator machine room.
- Elevator Standard Compliance** | Comply with EN81-28 and AS1735 standards in one hardware unit.
- Edge Computing Capability** | The i.MX 6ULL and 8 GB eMMC high-performance hardware provides a strong foundation for information processing and complex task handling.
- RCMS Cloud-based Router Management Platform** | RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.

Hardware			
Cellular	4G FDD LTE/TDD LTE	Bluetooth	Optional
SIM	2	LED Indicators	7 includes Battery, RUN, Line, MDM, RSSI, Cloud, Device
Cellular Antenna	2	Wi-Fi	Optional, support AP and Client mode
Ethernet	2 x LAN or 2 x WAN or 1 x LAN, 1 x WAN	Power Supply Input Range	9 to 30 VDC
Serial	1 x RS232 , 1 x RS485	Mounting	Din-Rail / Wall-Mount / Desktop
CAN	1 x CAN	Dimension Weight	170 x 150 x 35mm , 470g , Plastic housing
FXS	1	Operating Temperature	-20 ~ 60 °C (Without battery) 0 ~ +45 °C (With battery)
USB	1	Approval	CE, RCM, UKCA, JATE, TELEC, RoHS 2.0, WEEE
I/O	4 x DI, 1 x Relay	Firmware Upgrade	Web / CLI / SMS / RCMS

IoT Applications



Elevator IoT

Robustel MG460

Maritime Cybersecurity Gateway

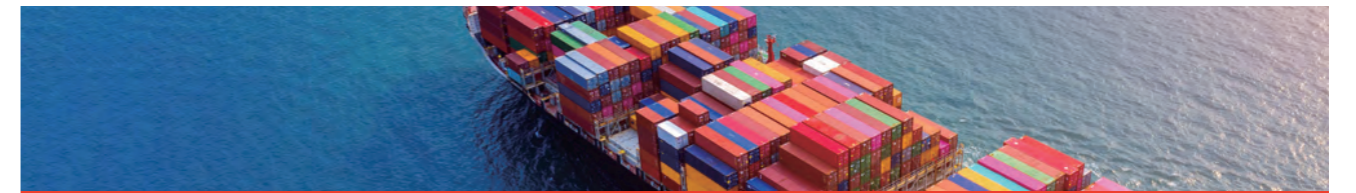
Robustel's MG460 is a new generation of industrial maritime gateway which is compliant to IEC61162-460 Edition 3 (Maritime Safety and Security) standards and IEC60945 standards. The MG460 can be used as a gateway between on-board vessel equipment and external services (Cloud platforms, servers, etc).



- Maritime Standard Compliance** | Compliance with IEC 60945 and latest IEC 61162-460 edition 3 standards
- Powerful Hardware Performance** | High performance compute engine with 1.6 GHz CPU + 64 GB eMMC Flash for running complex applications
- Data Security** | Multilayer inspection firewall and network/transport layer access control based on addresses, ports and protocols.
- RCMS Cloud-based Router Management Platform** | RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.

Hardware			
Network	LTE CAT 4	Type	2 x RS232 / RS485 / RS422
NPU	2.3 TOPS	CPU	Quad core Cortex-A53, 1.6 GHz
Ethernet	5, LAN or WAN	Wi-Fi	802.11 a/b/g/n/ac/ax, 2.4 GHz & 5 GHz
Serial	Transparent, TCP Client/Server, UDP, Modbus RTU Gateway	Power Supply Input Range	24V
SIM	2 Mini SIM (2 FF)	RAM	4 GB DDR4
USB	1 x USB 2.0 + 2 x USB 3.0	Dimension Weight	Metal, 622 g
System	RobustOS Pro	Operating Temperature	-15 ~ +55 °C
Flash	64 GB eMMC	Certification	CE, RCM, UKCA, CB, FCC*, C* (*in progress)

IoT Applications



Maritime IoT

Hardware

5G Industrial Router

Industries are rapidly introducing a suite of IoT technologies to improve the productivity and cost-efficiency of their operations. Sensors, robotics and automated systems are all common in networks across various industries, from medical to manufacturing.

5G wireless router technology enables this expeditious deployment of high-speed IoT applications and enables industries to increase their network bandwidth, while reducing latency and costs.

Robustel's 5G industrial routers brings the next generation of cellular connectivity to your industry, enabling rapid response times, and maintains reliable and stable communications in harsh industrial environments.

Robustel R5020

High Speed Smart 5G Router

The R5020 is Robustel's first 5G capable router supporting global 5G, 4G and 3G bands. The R5020 leverages the tried and tested high performance CPU platform, RobustOS - a mature and stable Operating System developed in-house by Robustel.



- High Speed Connection**
 Robustel's 5G routers support 5G Release 16 with fast DL/UL speeds in NSA/SA modes. 4G+ Carrier Aggregation ensures fast connections without 5G.
- Multiple Ethernet Ports**
 Equipped with multiple Ethernet ports. Built-in network switch to meet the needs of multi-device access.
- Vehicle Certification**
 Achieved E-mark certification for use in private and commercial vehicles
- Serial Ports & Digital IO Onboard**
 Support for legacy serial devices with RS232/RS485 interfaces provides maximum flexibility when used as a Modbus RTU interface, with IO for status indication and control.

Hardware			
Cellular	5G SA/NSA, 4G/LTE, 3G WCDMA	Wi-Fi	2.4 GHz: up to 300 Mbps, 5 GHz: up to 866.7 Mbps
Housing & Weight	Metal, 500 g	Ethernet Port	4 x 10/100/1000 Mbps, 4 LAN or 1 WAN + 3 LAN
Dimension	125 x 100 x 48 mm	Serial Port	1 x RS232 + 1 x RS485
Operating Temperature	-25 to +55 °C	DI/DO	1x DI + 1 x DO, wet contact
Power Supply	9 ~ 36 VDC (PoE-PD), 10 ~ 30 VDC (ACC)	USB	1 x USB 2.0 (host), Type A, 5V 500mA
PoE-PD	Optional	SIM Card Slot	2
Antenna Interface	4 x Cellular Antenna, 2 x Wi-Fi Antenna		

IoT Applications



Transportation & Logistics



Smart Cities



Environmental IoT

Robustel R5020 Lite

High Speed Smart 5G Router

The R5020 Lite is Robustel's new 5G capable router supporting global 5G, 4G and 3G bands. The R5020 Lite leverages our tried and tested high performance CPU platform, RobustOS - an Operating System developed in-house by Robustel that has passed extensive 3rd party penetration testing.



High Speed Connection

Robustel's 5G routers support 5G Release 16 with fast DL/UL speeds in NSA/SA modes. 4G+ Carrier Aggregation ensures fast connections without 5G.

Cost-effective Hardware

Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.

Flexible 802.11 Wi-Fi Services

Robustel routers offer Wi-Fi client, AP and dual modes, with advanced onboard firewall.

Serial Ports Onboard

RS232/485 support for Modbus RTU interface, connecting thousands of sensors/instruments for maximum flexibility.

Hardware

Cellular	5G SA/NSA, 4G/LTE, 3G WCDMA
Housing&Weight	Metal, 475 g
Dimension	136 x 115 x 32 mm
Operating Temperature	-25 to +55 °C
Power Supply	12 ~ 36 V
Antenna Interface	4 x Cellular Antenna, 2 x Wi-Fi Antenna
Wi-Fi	2.4 GHz: up to 300 Mbps, 5 GHz: up to 866.7 Mbps
Ethernet Port	2 x 10/100/1000 Mbps, can be configured, 2 LAN or 1 WAN + 1 LAN
Serial Port	1 x RS232/RS485, software configurable
SIM Card Slot	2

IoT Applications



Smart Cities



Transportation & Logistics



Industrial IoT

Robustel R5010

High Speed 5G Router (Coming Soon)

The R5010 is Robustel's new 5G capable router supporting global 5G, 4G and 3G bands. The R5010 leverages our tried and tested high performance RobustOS 5 – an Operating System developed in-house by Robustel that has passed extensive 3rd party penetration testing.



High Speed Connection

Robustel's 5G routers support 5G Release 16 with fast DL/UL speeds in NSA/SA modes. 4G+ Carrier Aggregation ensures fast connections without 5G.

Cost-effective Hardware

Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.

Robust Industrial Design

Robustel's quality products have industrial housing for reliability in any conditions, and protect against humidity, dust, vibration and EMC.

Free Router Management Platform

RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.



Hardware

Cellular	5G SA/NSA, 4G/LTE, 3G WCDMA
Housing&Weight	Metal, weight TBD
Dimension	100 x 94 x 30
Operating Temperature	-40~+70°C
Power Supply	9-60 V
PoE-PD	1 x PD port, 802.3at/af
Antenna Interface	4 x Cellular Antenna
Ethernet Port	1 x 10/100/1000 Mbps, LAN
SIM Card Slot	2

IoT Applications



Enterprise IT



Smart Cities



Industrial IoT

Hardware

Global Industrial Router

Traditionally, 4G routers have had to be supplied on a 'per region' basis due to cost and certification issues but the R1520 Global changes all that with global 4G (LTE) frequencies and a massive investment by Robustel in Global certifications.

Robustel R1520 Global

Global Industrial Dual SIM Cellular VPN Router

The R1520 Global router is Robustel's latest addition to the popular R1520 series. The Global variant has been designed for companies that want a simple one size fits all for global 4G deployments.



Cost-effective Hardware

Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.

Vehicle Certification

Achieved E-mark certification for use in private and commercial vehicles

Extensive International Certifications

Robustel heavily invests in global certifications for R1520G 4G router, making it one of the most certified worldwide.

High Precision Positioning

Provides precise location via GNSS and accurate navigation.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM	AI	1 x Analog input, Can be configured as voltage or current mode
Housing & Weight	Plastic, 250g	SIM Card Slot	2, Standard SIM or eSIM
Dimension	105 x 90 x 46 mm	Operating Temperature	-25 to +70 °C
Power Supply	9 ~ 36 V		
Antenna Interface	2 x Cellular Antenna, 2 x Wi-Fi Antenna		
Wi-Fi	2.4 GHz, up to 300Mbps		
Ethernet Port	5 x 10/100 Mbps, can be configured 5 LAN or 1 WAN + 4 LAN		
Serial Port	1 x RS232 + 1 x RS485		
DI/DO	1 x DI + 1 x DO, wet contact		

IoT Applications



Energy & Utilities



Transportation & Logistics



Smart Cities

21.75%

11.88%

Hardware

Industrial Cellular Router

Connectivity defines almost every aspect of our lives, and industry is no exception. From agriculture to M2M communications and factory automation, industrial connectivity is bringing new levels of innovation to a range of environments.

Cellular communications is one of the most popular connectivity choices for IIoT solutions. These networks are designed to handle high volumes of data and are commonly deployed around the globe. A cellular router will provide secure and reliable connectivity in harsh, demanding environments over a cellular network.

Robustel R2110

High Speed Smart LTE Router

The Robustel High Speed Smart LTE Router (R2110) is a rugged cellular router offering state-of-the-art mobile connectivity for internet of things applications.



- Robust Industrial Design** | Robustel's quality products have industrial housing for reliability in any conditions, and protect against humidity, dust, vibration and EMC.
- Dual SIM Card Design** | Dual SIM backup enhances network resilience - 2 networks are better than 1!
- Multiple Gigabit Ethernet Ports** | Equipped with 4x1000M Ethernet ports. Built-in network switch to meet the needs of multi-device access.
- Serial Ports & Digital IO Onboard** | Support for legacy serial devices with RS232/RS485 interfaces provides maximum flexibility when used as a Modbus RTU interface, with IO for status indication and control.

Hardware			
Cellular	4G LTE (Cat 4/6), 3G WCDMA, 2G GSM	DI/DO	1x DI + 1 x DO, wet contact
Housing & Weight	Metal, 500 g	USB	1 x USB 2.0 (host), Type A, 5V 500mA
Dimension	125 x 100 x 48 mm	SIM Card Slot	2
Operating Temperature	-25 to +55 °C	Power Supply	9 ~ 36 VDC (PoE-PD), 10 ~ 30 VDC (ACC)
PoE-PD	Optional		
Antenna Interface	2 x Cellular Antenna, 2 x Wi-Fi Antenna		
Wi-Fi	2.4 GHz: up to 300 Mbps, 5 GHz: up to 866.7 Mbps		
Ethernet Port	4 x 10/100/1000 Mbps, 4 LAN or 1 WAN + 3 LAN		
Serial Port	1 x RS232 + 1 x RS485		

IoT Applications



Energy & Utilities



Transportation & Logistics



Agriculture

Robustel R3000

Industrial LTE Router

The Robustel Industrial Dual SIM Cellular VPN Router (R3000) is a rugged cellular router offering state-of-the-art mobile connectivity for machine to machine (M2M) applications.



- Robust Industrial Design**

Robustel's quality products have industrial housing for reliability in any conditions, and protect against humidity, dust, vibration and EMC.
- Dual SIM Card Design**

Dual SIM backup enhances network resilience - 2 networks are better than 1!
- Serial Ports Onboard**

RS232/485 support for Modbus RTU interface, connecting thousands of sensors/instruments for maximum flexibility.
- Digital IO Onboard**

Robustel routers:
DI - status indication,
DO - control/reboot external devices.

Hardware			
Cellular	4G/LTE, 3G WCDMA, 2G GSM	USB	1 x USB 2.0 (host), up to 480Mbps
Housing & Weight	Metal, 570 g	SIM Card Slot	2
Dimension	125 x 104 x 43.5 mm	MicroSD	Support
Operating Temperature	-40 to +75 °C	Power Supply	9 ~ 60 V
Antenna Interface	2 x Cellular Antenna, 1 x Wi-Fi Antenna, 1 x GPS Antenna (Optional)		
Wi-Fi	2.4 GHz/5 GHz, up to 150Mbps		
Ethernet Port	2 x 10/100 Mbps, can be configured 2 LAN or 1 WAN + 1 LAN		
Serial Port	1 x RS232 + 1 x RS485		
DI/DO	2 x DI (dry contact) + 2 x DO (wet contact)		

IoT Applications



Robustel R3000 Quad

Industrial Cellular VPN Router with 4 Ethernet Ports

The Robustel Industrial Dual SIM Cellular VPN Router (R3000 Quad) is a rugged cellular router offering state-of-the-art mobile connectivity for machine to machine (M2M) applications.



Robust Industrial Design

Robustel's quality products have industrial housing for reliability in any conditions, and protect against humidity, dust, vibration and EMC.

Multiple Ethernet Ports

Equipped with multiple Ethernet ports. Built-in network switch to meet the needs of multi-device access.

Dual SIM Card Design

Dual SIM backup enhances network resilience - 2 networks are better than 1!

Serial Ports Onboard

RS232/485 support for Modbus RTU interface, connecting thousands of sensors/instruments for maximum flexibility.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM	SIM Card Slot	2
Housing & Weight	Metal, 570 g	MicroSD	Support
Dimension	125 x 104 x 43.5 mm		
Operating Temperature	-40 to +75 °C		
Power Supply	9 ~ 60 V		
Antenna Interface	2 x Cellular Antenna, 1 x Wi-Fi Antenna, 1 x GPS Antenna (Optional)		
Wi-Fi	2.4 GHz/5 GHz, up to 150Mbps		
Ethernet Port	4 x 10/100 Mbps, can be configured 4 LAN or 1 WAN + 3 LAN		
Serial Port	1 x RS232/RS485, software configurable		
USB	1 x USB 2.0 (host), up to 480Mbps		

IoT Applications



Industrial IoT



Enterprise IT



Transportation & Logistics

Robustel R3000 Lite

Industrial Dual SIM Cellular VPN Router

The Robustel Industrial Dual SIM Cellular VPN Router (R3000 Lite) is a rugged cellular router offering state-of-the-art mobile connectivity for machine to machine (M2M) applications.



- Compact Design** | Small in size and rich in functions, it can meet the installation requirements in narrow spaces.
- Cellular Connection Keepalive** | Robustel's cellular keepalive monitors and recovers from connectivity loss between routers and mobile networks.
- Serial Ports Onboard** | RS232/485 support for Modbus RTU interface, connecting thousands of sensors/instruments for maximum flexibility.
- Free Router Management Platform** | RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.

Hardware	
Cellular	4G/LTE, 3G WCDMA, 2G GSM
Housing&Weight	Metal, 305 g
Dimension	105 x 98 x 29.5 mm
Operating Temperature	-40 to +75 °C
Power Supply	9 ~ 36 V
Antenna Interface	2 x Cellular Antenna
Ethernet Port	1 x 10/100 Mbps
Serial Port	1 x RS232 + 1 x RS485
USB	1 x USB 2.0 (host), up to 480Mbps
SIM Card Slot	2

IoT Applications



Robustel R2010

Dual-SIM VPN IoT Router

The Robustel R2010 Industrial Cellular Gateway is a rugged, versatile 4G Gateway with dual Ethernet ports, dual SIM single standby capability and a range of advanced functions for mission critical IoT or M2M applications.



- Cost-effective Hardware**

Robustel hardware: Industrial grade, durable, wide voltage/-temperature range, cost-effective for high volume Industrial/IoT rollouts.
- Robust Industrial Design**

Robustel's quality products have industrial housing for reliability in any conditions, and protect against humidity, dust, vibration and EMC.
- Dual SIM Card Design**

Dual SIM backup enhances network resilience - 2 networks are better than 1!
- Serial Ports & Digital IO Onboard**

Support for legacy serial devices with RS232/RS485 interfaces provides maximum flexibility when used as a Modbus RTU interface, with IO for status indication and control.

Hardware			
Cellular	4G/LTE, 3G WCDMA, 2G GSM	DI/DO	1 x DI, 1 x DO
Housing & Weight	Metal, 350 g	SIM Card Slot	2
Dimension	127 x 82 x 30 mm		
Operating	-35 to +75 °C		
Power Supply	9 ~ 36 V		
PoE-PD	Optional		
Antenna Interface	2 x Cellular Antenna, 2 x Wi-Fi Antenna		
Wi-Fi	2.4 GHz, up to 300Mbps		
Ethernet Port	2 x 10/100 Mbps, can be configured 2 LAN or 1 WAN + 1 LAN		
Serial Port	1 x RS232/RS485, software configurable		

IoT Applications



Energy & Utilities



Environmental IoT



Agriculture

Robustel R2011

Versatile IoT Router with 5 Ethernet Ports

The Robustel R2011 Industrial Cellular Router is a rugged, versatile 4G router with 5 Ethernet ports, dual SIM single standby capability and a range of advanced functions for mission critical IoT or M2M applications.



Cost-effective Hardware	Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.
Dual SIM Card Design	Dual SIM backup enhances network resilience-2 networks are better than 1!
Multiple Ethernet Ports	Equipped with multiple Ethernet ports. Built-in network switch to meet the needs of multi-device access.
Flexible 802.11 Wi-Fi Services	Robustel routers offer Wi-Fi client, AP and dual modes, with advanced onboard firewall.

Hardware	
Cellular	4G/LTE, 3G WCDMA, 2G GSM
Housing&Weight	Metal, 350 g
Dimension	127 x 82 x 30 mm
Operating Temperature	-35 to +75 °C
Power Supply	9 ~ 36 V
PoE-PD	Optional
Antenna Interface	2 x Cellular Antenna, 2 x Wi-Fi Antenna
Wi-Fi	2.4 GHz, up to 300Mbps
Ethernet Port	5 x 10/100 Mbps, can be configured 5 LAN or 1 WAN + 4 LAN
SIM Card Slot	2

IoT Applications



Robustel R1520

Industrial Dual SIM Cellular VPN Router

The R1520 router from Robustel is a versatile 4G router with 5 Ethernet ports and a range of advanced functions for IoT Applications.



Cost-effective Hardware

Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.

Multiple Ethernet Ports

Equipped with 5 Ethernet ports. Built-in network switch to meet the needs of multi-device access.

Serial Ports & Digital IO & Analog Input Onboard

Support for legacy serial devices with RS232/RS485 interfaces provides maximum flexibility when used as a Modbus RTU interface, with IO and analog inputs.

Vehicle Certification

Achieved E-mark certification for use in private and commercial vehicles.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM	AI	1 x Analog Input, (can be configured as voltage or current mode)
Housing & Weight	Plastic, 250g	SIM Card Slot	2
Dimension	105 x 90 x 46 mm		
Operating Temperature	-25 to +70 °C		
Power Supply	9 ~ 36 V		
Antenna Interface	2 x Cellular Antenna, 2 x Wi-Fi Antenna		
Wi-Fi	2.4 GHz, up to 300Mbps		
Ethernet Port	5 x 10/100 Mbps, can be configured 5 LAN or 1 WAN + 4 LAN		
Serial Port	1 x RS232 + 1 x RS485		
DI/DO	1 x DI + 1 x DO, wet contact		

IoT Applications



Energy & Utilities



Transportation & Logistics



Smart Cities

Robustel R1511

Industrial Cellular VPN Router

Robustel's R1511 router is a Dual Ethernet port (LAN + WAN) 2G/3G/4G/LTE router with advanced software functions at a very competitive price point.



Cost-effective Hardware

Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.

Flexible 802.11 Wi-Fi Services

Robustel routers offer Wi-Fi client, AP and dual modes, with advanced onboard firewall.

Serial Ports Onboard

RS232/485 support for Modbus RTU interface, connecting thousands of sensors/instruments for maximum flexibility.

Free Router Management Platform

RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM
Housing & Weight	PLastic, 150g
Dimension	91.5 x 91.5 x 31.5 mm
Operating Temperature	-25 to +70 °C
Power Supply	9 ~ 36 V
Antenna Interface	2 x Cellular Antenna, 1 x Wi-Fi Antenna
Wi-Fi	2.4 GHz, up to 300Mbps
Ethernet Port	2 x 10/100 Mbps, can be configured 2 LAN or 1 WAN + 1 LAN
Serial Port	1 x RS232 or 1 x RS485, hardware optional
SIM Card Slot	1

IoT Applications



Energy & Utilities



Agriculture



Smart Cities

Robustel R1510

Industrial Cellular VPN Router

Robustel's R1510 router is a Dual Ethernet port (LAN + WAN) 3G/4G router with advanced software functions at a very competitive price point.



Cost-effective Hardware

Robustel hardware: Industrial grade, durable, wide voltage/temperature range, cost-effective for high volume Industrial/IoT rollouts.

Flexible 802.11 Wi-Fi Services

Robustel routers offer Wi-Fi client, AP and dual modes, with advanced onboard firewall.

Digital IO Onboard

Robustel routers: DI - status indication, DO - control/reboot external devices

Free Router Management Platform

RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM
Housing &Weight	PLastic, 150g
Dimension	91.5 x 91.5 x 31.5 mm
Operating Temperature	-25 to +70 °C
Power Supply	9 ~ 36 V
Antenna Interface	2 x Cellular Antenna, 1 x Wi-Fi Antenna
Wi-Fi	2.4 GHz, up to 300Mbps
Ethernet Port	2 x 10/100 Mbps, can be configured 2 LAN or 1 WAN + 1 LAN
DI/DO	1 x DI + 1 x DO, wet contact
SIM Card Slot	1

IoT Applications



Hardware

LoRaWAN Gateway

There is growing momentum around LoRaWAN solutions for the connectivity of Internet of Things (IoT) networks. LoRaWAN solutions are ideal for supporting wireless connectivity and are already being deployed across several industries.

Robustel LoRaWAN gateways are able to deliver high-performance with a customised design to suit your IoT needs.

Robustel R1520 LG

Universal Indoor LoraWAN Gateway

R1520LG, Robustel's next-generation LoRaWAN gateway, excels in dense indoor environments with robust 4G/3G/2G and WiFi support. Integrated with Chirpstack LoRa network server, it efficiently manages traffic. Featuring 2 x Ethernet, 1 x RS232, and 1 x RS485, along with POE-PD, it's ideal for smart buildings and industrial IoT, ensuring reliable connectivity.



Support LoRaWAN Globally

Equipped with the Semtech SX1302 chip, the R1520LG delivers expansive LoRaWAN connectivity with full duplex capability.

Built-in Chirpstack

Feature embedded Chirpstack LNS and Edge2Cloud application.

4G/Wi-Fi Network

Robustel R1520LG offer 4G, Wi-Fi client, AP and dual modes, with WAN failover feature.

Edge Intelligence at Hand

Computing engine with i.MX 6ULL, 792MHz + 512 MB DDR3 + 8 GB eMMC for complex tasks

Hardware

Network	LTE CAT 4	PoE PD	Optional
LoRa Frequency	CN470, US915, EU868, AU915	CPU	Cortex-A7, 792 MHz
Ethernet	2, LAN or WAN	Wi-Fi	802.11 b/g/n, 2.4 GHz
Serial	1 x RS232, 1 x RS485	Power Supply Input Range	9 ~ 60V
SIM	2 Mini SIM (2 FF)	RAM	512 MB DDR3
USB	1 x USB 2.0	Dimension Weight	Plastic, 238.5 g
System	RobustOS Pro	Operating Temperature	-20 ~ +60 °C
Flash	8 GB eMMC	Certification	CE*, RCM*, FCC* (*in progress)

IoT Applications



Energy & Utilities



Industrial IoT



Smart Cities

Robustel R3000 LG

Industrial LoRaWAN Gateway

Robustel R3000 LG is an industrial-grade LoRaWAN gateway, integrated with LoRaWAN wireless communication technology and cellular network technology, to provide users with wireless long-distance data transmission services.



Robust Industrial Design

Robustel's quality products have industrial housing for reliability in any conditions, and protect against humidity, dust, vibration and EMC.

Support LoRaWAN Globally

Support LoRaWAN frequency bands worldwide, ensuring seamless connectivity regardless of location.

Built-in Web Server

Feature a built-in web server, eliminating the need for costly cloud server operations.

Serial Ports & Digital IO Onboard

Support for legacy serial devices with RS232/RS485 interfaces provides maximum flexibility when used as a Modbus RTU interface, with IO for status indication and control.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM	USB	1 x USB 2.0 (host)
Housing & Weight	Metal, 570 g	MicroSD	Support
Dimension	125 x 104 x 43.5 mm		
Operating Temperature	-40 to +75 °C		
Power Supply	9 ~ 60 V		
Antenna Interface	2 x Cellular Antenna, 1 x LoRa Antenna, 1 x GPS Antenna (Optional)		
GNSS (incl. GPS)	Optional		
Ethernet Port	2 x 10/100 Mbps, can be configured 2 LAN or 1 WAN + 1 LAN		
Serial Port	1 x RS232 or 1 x RS485		
DI/DO	2 x DI (wet contact)		

IoT Applications



Energy & Utilities



Agriculture



Smart Cities

Robustel LG5100

Industrial Edge Computing LoRaWAN Gateway

Robustel's LG5100 series is a new generation of industrial LoRaWAN gateway, supporting global 4G/3G/2G networks for cellular backhaul, with a fully-fledged Debian Operating System able to support thousands of existing or new ARMv7 (Raspberry Pi compatible) based applications.



Support LoRaWAN Globally

Support LoRaWAN frequency bands worldwide, ensuring seamless connectivity regardless of location.

Built-in Web Server

Feature a built-in web server, eliminating the need for costly cloud server operations.

Supports Docker

Robustel's Docker containerisation allows easy porting of software to EG5000 series Gateways from other platforms.

Serial Ports & Digital IO Onboard

Support for legacy serial devices with RS232/RS485 interfaces provides maximum flexibility when used as a Modbus RTU interface, with IO for status indication and control.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM	Ethernet Port	2 x RJ45, 10/100Mbps
CPU	ARM Cortex-A7, 792MHz	Serial Port	2 x RS232/RS485, software configurable
Memory	512MB DDR3	DI/DO	2 x DI, 2 x DO, wet contact
Flash	8 GB eMMC	USB	1 x USB 2.0 (host), Type A, 5V 500mA
Housing & Weight	Metal, 555g	SIM Card Slot	2
Dimension	49 x 105 x 128 mm		
Operating Temperature	-40 to +70 °C		
Power Supply	9 ~ 60V		
PoE-PD	Optional		
Antenna Interface	2 x Cellular Antenna, 1 x LoRa Antenna		

IoT Applications



Smart Cities



Energy & Utilities



Agriculture

Hardware

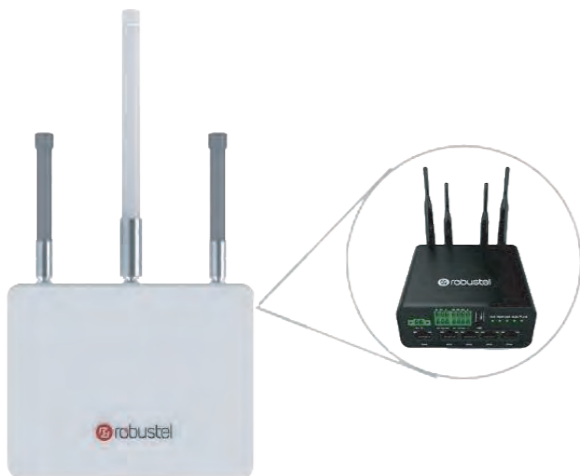
IP67 Outdoor Router

As industries grow into remote environments, there's a demand for secure and reliable network solutions for outdoor areas that can withstand harsh weather conditions. From providing high-speed internet access to events and campuses to public facilities and oil and gas, an outdoor WiFi router allows you to connect to the internet whenever and wherever you need it. Robustel has an outdoor router for your needs. Support a temporary event, connect stations or maintain a reliable connection in the toughest environments.

Robustel R1520G-OG

IP67 Rated Outdoor Router

The R1520G-OG is an IP67 rated outdoor router (including TPH-R1520 and R1520-4L Global) that is ideal for adding Wi-Fi internet access at events, on campuses or when a rugged housing is required for indoor deployments.



Ingress Protection Level IP67

Robustel outdoor gateway offers IP67-rated protection against dust and water, making it resistant to water splashes, dust, and other harsh weather conditions.

Serial Ports & Digital IO & Analog Input Onboard

Support for legacy serial devices with RS232/RS485 interfaces provides maximum flexibility when used as a Modbus RTU interface, with IO and analog inputs.

Multiple Ethernet Ports

Equipped with multiple Ethernet ports. Built-in network switch to meet the needs of multi-device access.

Extensive International Certifications

Robustel heavily invests in global certifications for R1520G 4G router, making it one of the most certified worldwide.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM	AI	1 x Analog Input, (can be configured as voltage or current mode)
Housing & Weight	Plastic, 2008g including R1520, excludes antennas and mounting hardware	SIM Card Slot	2
Dimension	105 x 90 x 46 mm		
Operating Temperature	-25 to +70 °C		
Power Supply	9 ~ 36 V		
Antenna Interface	2 x Cellular Antenna, 2 x Wi-Fi Antenna		
Wi-Fi	2.4 GHz, up to 300Mbps		
Ethernet Port	5 x 10/100 Mbps, can be configured 5 LAN or 1 WAN + 4 LAN		
Serial Port	1 x RS232 + 1 x RS485		
DI/DO	1 x DI + 1 x DO, wet contact		

Robustel R3000 LG-OG

Outdoor Gateway

The Robustel R3000 LG-OG is an IP67 outdoor LoRaWAN gateway. It is integrated with LoRaWAN wireless communication and cellular network technology, to provide users with wireless long-distance data transmission capabilities.



Ingress Protection Level IP67	Robustel outdoor gateway offers IP67-rated protection against dust and water, making it resistant to water splashes, dust, and other harsh weather conditions.
Support LoRaWAN Globally	Support LoRaWAN frequency bands worldwide, ensuring seamless connectivity regardless of location.
Built-in Web Server	Feature a built-in web server, eliminating the need for costly cloud server operations.
Serial Ports & Digital IO Onboard	Support for legacy serial devices with RS232/RS485 interfaces provides maximum flexibility when used as a Modbus RTU interface, with IO for status indication and control.



Hardware			
Cellular	4G/LTE, 3G WCDMA, 2G GSM	USB	1 x USB 2.0 (host)
Housing & Weight	PC/ABS, 3,020g	SIM Card Slot	2
Dimension	310 x 245 x 93.4 mm	MicroSD	Support
Operating Temperature	-40 to +75 °C		
Power Supply	9 ~ 60 V		
Antenna Interface	2 x Cellular Antenna, 1 x LoRa Antenna, 1 x GPS Antenna (Optional)		
GNSS (incl. GPS)	Optional		
Ethernet Port	2 x 10/100 Mbps, can be configured 2 LAN or 1 WAN + 1 LAN		
Serial Port	1 x RS232 or 1 x RS485		
DI/DO	2 x DI (wet contact)		

Hardware

Embedded 3G/4G Router

Embedded 4G and 3G routers solve two problems that often plague traditional routers: cost and size, using boards that are tighter in footprint, yet massive in their capabilities.

Robustel's R1511P embedded router is smaller than a traditional router and easily used for space-constrained applications and devices. This router provides high-speed wireless network bandwidth for devices through a wireless connection, ensuring a stable connection to the network.

Robustel R1511P

Embedded LTE Router

The R1511P Embedded 4G/LTE Router is a cost-effective small footprint board. It offers Ethernet WAN, Wi-Fi WAN and 4G WAN interfaces. These can all be independently configured in our powerful onboard Operating System - RobustOS.



Designed for Embedded Applications

An ideal solution for embedded applications to customers who need to purchase in large quantities while minimizing procurement costs.

Dual SIM Card Design

Dual SIM backup enhances network resilience - 2 networks are better than 1!

Serial Ports Onboard

RS232/485 support for Modbus RTU interface, connecting thousands of sensors/instruments for maximum flexibility.

Connect Directly to IoT Platforms

Seamlessly link with IoT cloud platforms like MS Azure IoT Hub, AWS, Alibaba, Tencent, DeviceWISE & MQTT-based platforms.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM
Weight	65g
Operating Temperature	-25 to +70 °C
Power Supply	9 ~ 36 V
Antenna Interface	2 x Cellular Antenna, 1 x Wi-Fi Antenna
Wi-Fi	2.4 GHz, up to 300Mbps
Ethernet Port	2 x 10/100 Mbps, can be configured, 2 LAN or 1 WAN + 1 LAN
Serial Port	1 x RS232 or 1 x RS485, hardware optional
SIM Card Slot	1

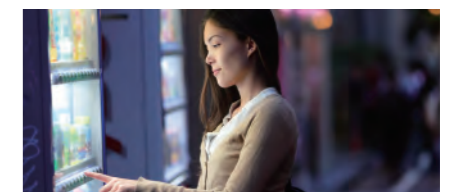
IoT Applications



Energy & Utilities



Smart Cities



Retail & Payments

Robustel R1511P-DevKit

Embedded 4G Router Development Kit

The R1511P Development Kit provides prospective customers with all the parts required to evaluate the suitability of the R1511P embedded 4G router for integration into custom products / projects.



Support for Custom Applications

RobustOS and RobustOS PRO have SDKs for running supplementary software on router resources, saving the cost of an embedded PC.

Serial Ports Onboard

RS232/485 support for Modbus RTU interface, connecting thousands of sensors/instruments for maximum flexibility.

Unique Edge2Cloud (E2C) Software

Support for powerful Edge2Cloud IoT Gateway via innovative software, used in many Modbus to Cloud projects.

Connect Directly to IoT Platforms

Seamlessly link with IoT cloud platforms like MS Azure IoT Hub, AWS, Alibaba, Tencent, Device-WISE & MQTT-based platforms.

Hardware

Cellular	4G/LTE, 3G WCDMA, 2G GSM
Weight	65g
Operating Temperature	-25 to +70 °C
PowerSupply	9 ~ 36 V
Antenna Interface	2 x Cellular Antenna, 1 x Wi-Fi Antenna
Wi-Fi	2.4 GHz, up to 300Mbps
Ethernet Port	2 x 10/100 Mbps, can be configured, 2 LAN or 1 WAN + 1 LAN
Serial Port	1 x RS232 or 1 x RS485, hardware optional
SIM Card Slot	1



Hardware

Smart Industrial IoT Gateway

Industrial automation depends on stable network connectivity and data transmission .

Robustel Wireless Data Terminal can be applied to across many verticals, such as Energy, Transportation and Agriculture, to name a few.

Robustel M1200

Smart Industrial IoT Gateway

The Robustel M1200 Industrial LTE Gateway is a rugged industrial IoT modem, designed for connecting devices globally. It is based on GSM/GPRS/EDGE/UMTS/WCDMA/HSDPA/HSUPA/HSPA+/FDD LTE/TDD LTE networks.



- Compact Design** | Small in size and rich in functions, it can meet the installation requirements in narrow spaces.
- Cellular Connection Keepalive** | Robustel's cellular keepalive monitors and recovers from connectivity loss between routers and mobile networks.
- Connect Directly to IoT Platforms** | Seamlessly link with IoT cloud platforms like MS Azure IoT Hub, AWS, Alibaba, Tencent, Device-WISE & MQTT-based platforms.
- Free Router Management Platform** | RCMS router management platform manages SIMs and routers at scale. Free basic version, advanced features on PAYG - compelling commercially.

Hardware	
Cellular	4G/LTE, 3G WCDMA, 2G GSM
Housing & Weight	Plastic, 100 g
Dimension	85 x 75 x 28.5 mm
Operating Temperature	-40 to +75 °C
Power Supply	9 ~ 36 V
Antenna Interface	1 x Cellular Antenna
Serial Port	Configurable RS-232 / RS-485 / RS-422 / CAN
USB	1 x mini-USB(for configuration), up to 480Mbps
SIM Card Slot	1

IoT Applications



Hardware

Accessories

This part displays the accessories used by Robustel device. Customers can choose accessories compatible with Robustel devices according to their needs.

Antenna



5G RUBBER ANTENNA

PN: E003174

Related Products:
Compatible with 4/5G products



4G RUBBER ANTENNA

PN: E003168

Related Products:
Compatible with 3/4G Modem/Router/Gateway



4G CONNECTOR MOUNT ANTENNA

PN: E003047

Related Products:
M1000, M1200, M1201, R1510, R1520, R1510 Lite, R1511, R1511P, R2110, R2010, R2011, R3000, R3010, R3000 Quad, R3000 Lite, R3000 LG



Wi-Fi & BLUETOOTH RUBBER ANTENNA

PN: E003203

Related Products:
Compatible with products that support 2.4G Wi-Fi/BT



Wi-Fi Dual Band CONNECTOR MOUNT ANTENNA

PN: E003142

Related Products:
R2000-Dual, R201x, R2110, R3000 Series, R3000 LG, R5020, R5020-Lite, EG5100, EG5120



**LORA CONNECTOR MOUNT ANTENNA
863 ~ 870/902 ~ 968 MHz**

PN: E003192

Related Product:
R3000 LG

Antenna



5G MAGNETIC MOUNT ANTENNA

PN: E003201

Related Products:

Compatible with 4/5G products



Wi-Fi & BLUETOOTH RUBBER ANTENNA

PN: E003217

Related Products:

Compatible with products that support 2.4G Wi-Fi/BT



4G MAGNETIC MOUNT ANTENNA

PN: E003204

Related Product:

Compatible with 4G LTE Modem/Router/Gateway



GNSS MAGNETIC MOUNT ANTENNA

PN: E003031

Related Products:

R3000, R3000 LG, R3000 Quad, R1520, R2110, R5020, EG5100, EG5120



4G ADHESIVE MOUNT ANTENNA

PN: E003083

Related Products:

M1000, M1200, M1201, R1510, R1520, R1510 Lite, R1511, R1511P, R2110, R2010, R2011, R3000, R3010, R3000 Quad, R3000 Lite,



5G 4-IN-1 Cellular/ GNSS COMBO MOUNT ANTENNA

PN: E003190

Related Products:

R5020, EG5120-5G

Power Supply



2-PIN
CORD END TERMINAL
POWER SUPPLY 12VDC 1A 12W
UK: S012001/US: S012002/CN: S012003
AU: S012004/EU: S012005
GLOBAL: S012016

Related Product:
M1000 MP, M1200, R1500, R1510 Lite, R1510, R1511,
R1511P, R2000, R3000 LG, R3000, R3000 Quad,
R3000 Lite



2-PIN
CORD END TERMINAL
POWER SUPPLY 12VDC 1.5A 18W
UK: S012006/US: S012007/CN: S012008
AU: S012009/EU: S012010
GLOBAL: S012017

Related Product:
R1520, R2110, R5020, R2000 Dual, R2010, R2011
R5020 Lite, EG5100, LG5100



2-PIN
CORD END TERMINAL
POWER SUPPLY 24VDC 1A 24W
UK: S012018/US: S012019/CN: S012020
AU: S012021/EU: S012022
GLOBAL: S012023

Related Product:
R5020, R5020 Lite, EG5120

Installation Accessories



PN: S051010
Related Product:
R2110



PN: S051005
Related Product:
R3000, R3000 Lite,
R3000 Quad, R3000 LG,
R3010



PN: S052003
Related Product:
M1000 MP, R1520, R151x



PN: S052004
Related Product:
R5020



PN: S052005
Related Product:
R201x

Installation Accessories

WALL MOUNTING KIT



PN: S051001

Related Product:
R3000, R3000 Lite,
R3000 Quad,
R3000 LG, R3010



PN: S051003

Related Product:
M1000 MP, M1200,
R1500, R151X



PN: S051011

Related Product:
R1520

DIN RAIL MOUNTING KIT



PN: S050008

Related Product:
R3000, R3000 Quad,
R3000 LG, R3000 Lite,
R3010



PN: S050006

Related Product:
R2010, R2011,
R2110, R5020
R5020 Lite,
EG5100,EG5120,
LG5100,



PN: S050007

Related Product:
M1000 MP, M1200,
R151X, R1520

WALL MOUNTING KIT With 2 PLATES



PN: S051007

Related Product:
M1000 MP, M1200,
R151X, R1520



PN: S051013

Related Product:
R2010, R2011,
R2110, R5020,
R5020 Lite,EG5120,
LG5100,EG5100

Product Comparison

Modem /DTU		2G	3G/4G	5G	Cat-1	LoRa WAN	Cellular Module	SIM	Cellular Antenna	Ethernet	PoE	WiFi	BT	GNSS
	M1200	✓	✓				1	1	1					
Lite Industrial Router	R1510	✓	✓		✓		1	1	2	2		✓		
	R1511	✓	✓		✓		1	1	2	2		✓		
	R1511P	✓	✓				1	1	2	2		✓		
	R1520-4L	✓	✓				1	2	2	5	✓*	✓		✓*
	R1520-4L Global	✓	✓				1	2	2	5	✓	✓		✓
Enterprise Industrial Router	R2000 Dual	✓	✓				1 or 2	2	4	5	✓	✓		
	R2010	✓	✓		✓		1	2	1 or 2	2	✓*	✓		
	R2011	✓	✓				1	2	1 or 2	5	✓*	✓		
	R2110	✓	✓				1	2	2	4 (GbE)	✓*	✓*	✓*	✓*
LPWAN Gateway	R3000 LG	✓	✓			✓	1	2	2	2				✓*
	LG5100	✓	✓			✓	1	2	2	2	✓			
Industrial Router	R3000 Lite	✓	✓				1	2	2	1				
	R3000	✓	✓				1	2	2	2		✓*		✓*
	R3000 Quad	✓	✓				1	2	2	4		✓*		✓*
5G Industrial Router	R5010		✓	✓			1	2	4	1 (GbE)	✓			
	R5020		✓	✓			1	2	4	4 (GbE)	✓*	✓		✓
	R5020 Lite		✓	✓			1	2	4	2 (GbE)		✓		
Edge Computing Gateway	EG5100		✓				1	2	2	2		✓*	✓*	✓*
	EG5101		✓				1	2	1	1				
	EG5120		✓	✓			1	2	2 (4G) 4 (5G)	2 (GbE)		✓*	✓*	✓*
	EG5200	✓	✓	✓			1	2	4	5 (GbE)		✓*	✓*	✓*

* for optional or configurable GbE for Gigabit Ethernet

RS422	RS232	RS485	CAN	DI	DO	AI (Analog Input)	USB	SD	Power Supply (V)	Operating Temp (C/F)	Housing	Smart Roaming	Robust VPN	Data-Guard
	1	1					1		9~36	-40~+75/ -40~+167	Plastic			
				1	1				9~36	-25~+70/ -13~+158	Plastic	✓*	✓	✓
	1*							9~36	Plastic		✓*	✓	✓	
	1*							9~36			✓*	✓	✓	
	1	1		1	1	1	1	9~36	Plastic		✓	✓	✓	
	1	1		1	1	1	1	9~36	Plastic		✓	✓	✓	
				1					9~57		Metal	✓	✓	✓
	1*			1	1				9~36	-35~+75/ -31~+167	Metal	✓	✓	✓
									9~36		Metal	✓	✓	✓
	1	1		1	1		1		9~36	-25~+70/ -13~+158	Metal	✓	✓	✓
	1*			2			1	✓	9~60	-40~+75/ -40~+167	Metal	✓	✓	✓
	2*			2	2		1		9~60	-40~+70/ -40~+158	Metal		✓	✓
	1*						1		9~36		Metal	✓	✓	✓
	1	1		2	2		1	✓	9~60	-40~+75/ -40~+167	Metal	✓	✓	✓
	1*						1	✓	9~60		Metal	✓	✓	✓
							1		9~60	-40~+70/ -40~+158	Metal		✓	✓
	1	1		1	1		1		9~36 / 10~30	-25~+70/ -13~+158	Metal		✓	✓
	1*								12~36	-25~+70/ -13~+158	Metal		✓	✓
	2*			2	2		1		9~60	-40~+70/ -40~+158	Metal		✓	✓
	1	1					1		9~36	-40~+70/ -40~+158	Metal		✓	✓
	2*			2	2		1	✓	9~60	-40~+70/ -40~+158	Metal		✓	✓
	3*			2	2		3	✓	9~60	-40~+75/ -40~+167	Metal		✓	✓

For more information about product model, please contact your Robustel sales representative.