



HIGH-SPEED SECURE CONNECTIVITY

5g Industrial Router



Robustel 5G Product Portfolio

5G Industrial Edge Computing Gateway



AI 5G robust OS 5G

EG5120

5G Industrial Router



5G robust OS 5G

R5020 R5020 Lite R5010

5G High Speed Connection

Supports Docker

Multiple Ethernet Ports

Serial Ports & Digital IO Onboard

Powerful Hardware Performance

Flexible 802.11 WiFi

Robust Industrial Design

Dual SIM Card Design

The above features are the common features of some products in this series. Please check the following pages to learn about the details in difference of products.

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.



Watch
Video

Robustel EG5120

5G 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.



robustOS Pro



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	Optional, 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 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.

Watch
Video



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	-20~+55°C(Normal temperature) -25~+70°C(Extended temperature)	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.

Watch
Video



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	-20~+55°C(Normal temperature) -25~+70°C(Extended temperature)
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

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



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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



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RCMS STACK

RCMS STACK is a private version of the RCMS platform packaged and installed in a customer's 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.



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

2 Million +

Connected
Terminals

100 +

Countries

10,000 +

Enterprise
Customers

11 +

Global Offices

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.



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.



Transport & Logistics

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



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.



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.





Scan to Visit Robustel Website for
More Product Information

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