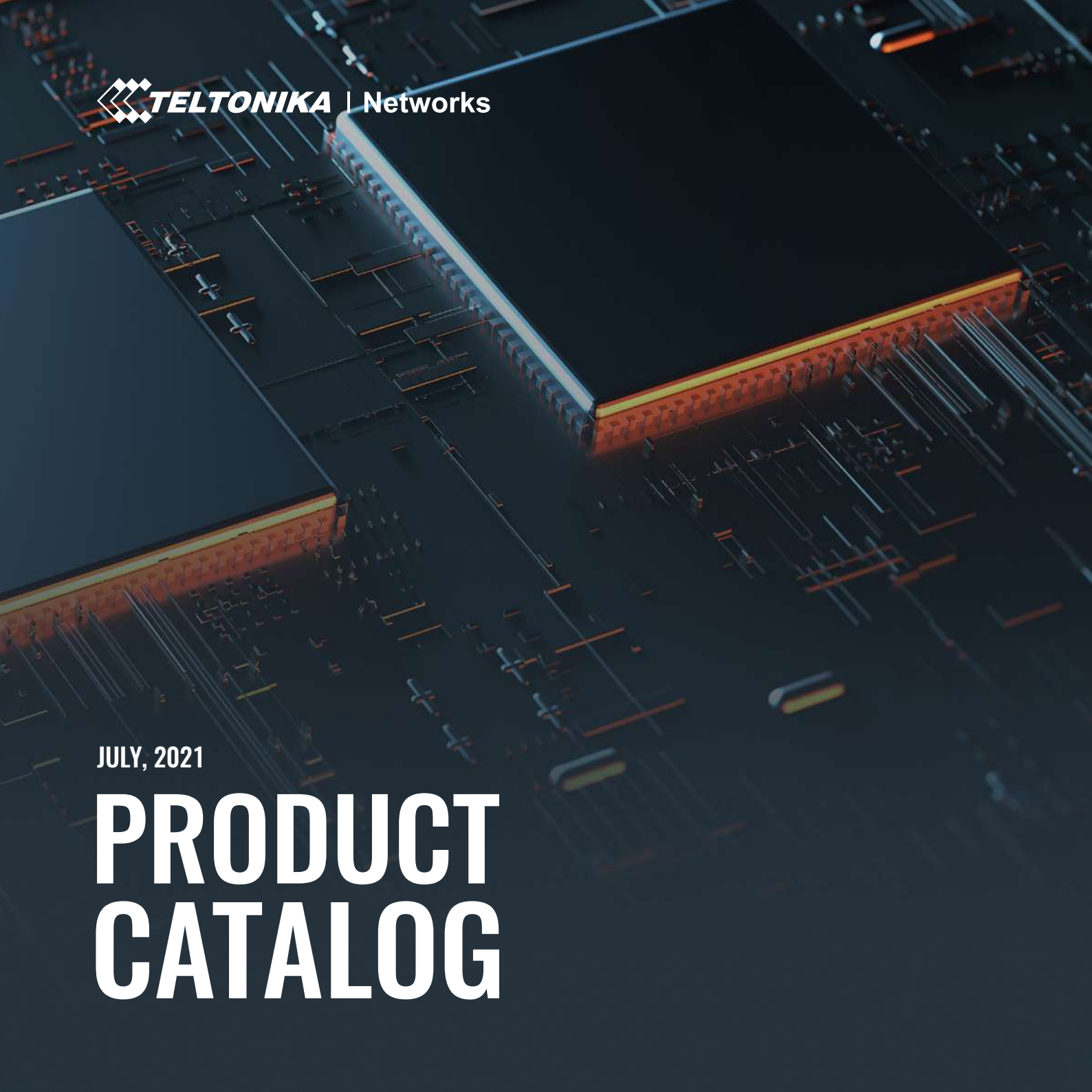

JULY, 2021

PRODUCT CATALOG

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WHO WE ARE?

23 YEARS OF IoT BUSINESS

We are a rapidly growing technology company, manufacturing professional network connectivity equipment for international markets. Through long-term experience and research and development of industrial network devices for IoT and M2M communication, we have developed a wide portfolio of products for the most complex areas, such as Industry 4.0, Smart City, and Green Energy.

OUR MISSION IS

to be a fast and flexible partner and be closer to our clients in every world region. Longstanding experience, reliable supply chain, and highest technology process models enable us to produce millions of IoT devices to our clients.

OUR VISION IS

to become one of the global leaders providing unique IoT solutions that contribute to making people's lives easier. We are open-minded to establish the environment for the creative and ambitious work professionals in Lithuania and the rest of the world to grow and contribute towards our Mission.

OUR VALUES ARE

not only working but also living to help and sharing kindness to people, especially those who need our help the most. We are keeping our values by continuously and courageously creating synergy between Teltonika IoT Group and business partners as well as clients.

28 OFFICES IN 19 COUNTRIES

OUR TEAM

BIGGEST STRENGTH!

Teltonika Networks has a proven track record of rapid growth within professional and industrial cellular connectivity market segments. It would not be possible without a strong, ambitious, and continuously growing team.

310+ employees in HQ

45% team growth in 2020

10+ nationalities

100% dedication to our partners

IOT & B2B ACADEMIES MORE THAN 200 COMPLETED INTERNSHIPS

GROWING TALENT

We have established IoT and B2B academies that closely collaborate with local universities by hosting guest lectures and supporting them with custom scholarships. However, the biggest gain of these academies is the student internships. During them, we share all of our know-how and experience. This practice is also beneficial to us as it helps to attract the best talent to join our young but already experienced team.

HOLISTIC APPROACH

From concept to the finished product – we develop everything in-house to ensure maximum quality and efficiency. It enables us to move much faster because we do not rely on any externalities.

Over the years, we have implemented hundreds of customized projects, from the smallest firmware changes to full-scale hardware alterations. This experience helped our partners capture more opportunities in the fast-paced technology environment - together.

We make all of our products in the state-of-the-art Teltonika IoT Group manufacturing facility in Vilnius, Lithuania. Full control over our production allows us to ensure that we deliver only the best and most reliable devices.

5 MODERN SMT LINES

100+ ROBOTS FOR AUTOMATION

ECOFRIENDLY PACKAGING AND LASER ENGRAVING

FROM CONCEPT TO THE FINISHED PRODUCT

EXPERIENCE

For more than 23 years we have been providing reliable Industrial IoT & M2M connectivity solutions that are secure and easy to use.

FLEXIBILITY

We have implemented hundreds of customized projects from the smallest firmware change to full-scale hardware alterations.

ALL IN ONE

From the concept to the finished product – we develop everything in-house to ensure maximum quality and efficiency.

PORTFOLIO

WE HELP YOU CONNECT

We designed our product portfolio to help our partners access opportunities within the rapidly growing IoT and Industrial IoT space. It consists of modems, gateways, routers, switches, and IoT platforms. We have grown to be one of the leaders of cellular IoT devices for industrial and professional applications. From automation, smart grid, to public transport connectivity – hundreds of thousands of our networking products are currently at the heart of our partners' solutions.

GROWING PORTFOLIO

2017	2018	2019	2020	2021
+2	+3	+5	+5	★

23 DEVICES - UNLIMITED USE CASES

INDUSTRIAL & AUTOMATION

Global adoption of automation demands the ability to monitor and manage equipment remotely to increase productivity.

ENERGY & UTILITIES

Reducing power consumption and maintenance costs by building wired and wireless IoT connectivity solutions.

SMART CITY

Connected sensors, infrastructure, vehicles, and devices require secure and reliable IoT connectivity products.

TRANSPORTATION

Networking devices transport operators to optimize their businesses and create new revenue streams.

ENTERPRISE

Enterprise applications require primary and backup connectivity solutions that are secure, reliable, and easy to use.

RETAIL

IoT connectivity solutions offer new ways to interact with clients and collect valuable data to make strategic decisions.

OUR FOCUS

INSPIRE

At Teltonika Networks, we have a clearly defined product development philosophy that we use at every stage of product development decision making. We know that security and reliability are the two core factors in industrial networking device selection. However, we thrive to offer complex and capable devices without the sacrifice of ease of use. We wish to make IoT accessible to every enthusiast to inspire creativity and solve real-life problems with technology.

RELIABLE

Reliability is one of the core focus while designing devices at Teltonika Networks. Our products are engineered and manufactured with goal to achieve the best reliability possible.

SECURE

Security risk tests are performed constantly on all Teltonika Networks devices and all products are being periodically updated to eliminate any breaches in order to assure highest level of security.

EASY TO USE

Teltonika Networks devices are highly professional however they are very easy to use. Ability to offer products which do not require any special training is one of our strengths.

RUTOS

OPERATING SYSTEM FOR NETWORKING PRODUCTS

RutOS is our unified router Operating System and the core component of all Teltonika networking products. 10+ years of development made RutOS grow to the highest Industry standards. Security, stability and user experience are the key values that our platform is built around. Intuitive Web interface and constantly growing Wiki/Crowd-Support platforms help our partners to cut costs on engineer training while implementing new devices or migrating from other systems.

Teltonika networking products stand out as easily manageable devices on the market. Multiple remote monitoring and control functions are inseparable part of RutOS. This Open-source OpenWrt based Operating System along with full software documentation enable easy development of custom software solutions or new functionality as well as fast integration with 3rd party platforms.

COMPLETE SOLUTION

RMS

The **Remote Management System** (RMS) by Teltonika Networks allows you to be in control of your complete IoT solution from anywhere in the world. RMS offers remote access to all of your devices from a single user-friendly platform. We tailored RMS to meet the requirements of various client profiles and designed three available RMS plans.

REMOTE MANAGEMENT SYSTEM

MANAGEMENT

RMS MANAGEMENT gives you full control over your fleet of Teltonika Networks routers and gateways, ensuring their security and availability. RMS offers many features to save your time and expenses while managing everything remotely – even without a public IP!

- USER FRIENDLY INTERFACE
- LOCATION HISTORY & POSITIONING
- HISTORICAL DATA AND REPORTS
- MULTI-CONFIGURATION & FOTA
- CUSTOMIZABLE ALERTS AND NOTIFICATIONS
- HOTSPOT MANAGEMENT SERVICE

CONNECT

RMS CONNECT is a unified access system, which allows you to reach and control smart devices remotely via RMS. If your PLC, Industrial PC, CCTV camera, Point of Sale system or other intelligent device is reachable by one of RMS compatible routers or gateways, you can access it with RMS CONNECT without a public IP or additional VPN services!

// HTTP/HTTPS protocol compatibility allows for easy access of Web User Interface of other devices

// SSH enables you to reach Command Line Interface of end devices via SSH tunnels

// Remote Desktop functionality enables you to gain full control of any equipment running Windows, Linux or Android that support RDP/VNC protocols

API

What could be more efficient than having a single software system for your whole connected solution infrastructure? With our RMS API you can get just that! RMS API allows your IoT Platform to directly interact with RMS and get the exact data and functionality you need. Just like with other RMS services we want to give you full control of your solution and RMS API brings that to another level!

MODEMS

Industrial cellular modems is the most cost-efficient and scalable method to provide reliable connectivity in industrial networking applications. Large amount of legacy and Industrial IoT infrastructure worldwide requires different methods of connectivity. Robust Industrial Cellular Modems from Teltonika Networks provide numerous cellular connectivity options, ranging from 2G (EGPRS) to 4G LTE Cat 1, LTE Cat-M1 and NB-IoT.

TRM240

INDUSTRIAL CELLULAR MODEM

TRM240 is an Industrial grade USB LTE Cat 1 Modem with rugged housing and external antenna for better signal coverage. This product is perfect for upgrading existing industrial equipment with cost-efficient LTE connectivity.

CONNECTIVITY

4G/LTE (Cat 1), 3G, 2G

DURABLE

Rugged aluminium housing

USB

Interface for internet accsess

EFFICIENT

Low power consumption

COMPACT

Small size, easy installation

EASY TO USE

Controlled using Network manager

HARDWARE

Mobile	4G/LTE (Cat 1), 3G, 2G
Powering option	microUSB, 5 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
USB	1 x Micro USB slave
Status LEDs	1 x LTE, 1 x Network, 1 x Power
Ingress protection rating	IP30
Operating humidity	10 % to 90 % non-condensing
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	125 g

SOFTWARE

Network manager	Windows 7/8/8.1/10 Linux distributions
USB serial driver	Windows 7/8/8.1/10 Windows CE 5.0/6.0 Linux 2.6~5.4 Android 4.x/5.x/6.x/7.x/8.x/9.x
RIL driver	Android 4.x/5.x/6.x/7.x/8.x/9.x
NDIS driver	Windows 7/8/8.1/10
Gobinet driver	Linux 2.6~5.4
QMI_WWAN driver	Linux 3.4~5.4
Control via AT commands	3GPP TS27.007 and enhanced AT commands

TRM250

INDUSTRIAL CELLULAR MODEM

TRM250 is an Industrial grade USB LTE Cat-M1/NB-IoT/EGPRS Modem with rugged housing and external antenna for better signal coverage. This product is perfect for providing cost-efficient Internet connectivity in remote monitoring applications.

CONNECTIVITY

4G/LTE (Cat M1), NB-IoT, 2G

DURABLE

Rugged aluminum housing

USB

Interface for internet accsess

EFFICIENT

Low power consumption

COMPACT

Small size, easy installation

EASY TO USE

Controlled using Network manager

HARDWARE

Mobile	4G/LTE (Cat M1), NB-IoT, 2G
Powering option	microUSB, 5 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
USB	1 x Micro USB slave
Status LEDs	1 x Network, 1 x Power
Ingress protection rating	IP30
Operating humidity	10 % to 90 % non-condensing
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	125 g

SOFTWARE

Network manager	Windows 7/8/8.1/10 Linux distributions
USB serial driver	Windows 7/8/8.1/10 Windows CE 5.0/6.0 Linux 2.6~5.4 Android 4.x/5.x/6.x/7.x/8.x/9.x
RIL driver	Android 4.x/5.x/6.x/7.x/8.x/9.x
NDIS driver	Windows 7/8/8.1/10
Gobinet driver	Linux 2.6~5.4
QMI_WWAN driver	Linux 3.4~5.4
Control via AT commands	3GPP TS27.007 and enhanced AT commands

GATEWAYS

Teltonika Networks TRB series is a set of programmable M2M gateways designed to connect one device to the Internet. Linux-based highly functional TRB devices come with industrial networking capabilities and variety of interfaces such as Ethernet, RS232, RS485 or Inputs/Outputs. All our gateways are 4G LTE capable and can be connected to the RMS (Remote management system) for intuitive and convenient remote monitoring, configuration and control.

TRB140

INDUSTRIAL RUGGED LTE GATEWAY

Ultra-small, lightweight and energy efficient IoT device equipped with mission-critical LTE connectivity, Gigabit Ethernet interface and Linux environment offering a high degree of customization. TRB140 is perfect for projects and applications where a single device must be upgraded with reliable and secure Internet connectivity.

CONNECTIVITY

4G/LTE (Cat 4), 3G, 2G

DURABLE

Rugged aluminum housing

RUTOS

Easy to use, secure and feature rich OpenWRT based operating system

9-30V

Wide range of supported power supply voltages

COMPACT

Small size, easy installation

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 4), 3G, 2G
CPU	Qualcomm, ARM Cortex A7, 1.2 GHz
Memory	512 MBytes Flash (70 MBytes for userspace), 128 MBytes RAM (50 MBytes for userspace)
Powering option	4pin power socket, 9-30 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
Ethernet	1 x 10/100/1000 Ethernet port
Inputs/Outputs	On 4pin socket: 2 x Digital input/Digital open collector output (configurable)
Other	1 x Micro USB slave
Status LEDs	3 x Connection type, 5 x Signal strength, 2 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	134 g

SOFTWARE

Operating system	RutOS
Mobile features	Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet
Firewall	Port forward, Traffic rules, Custom rules, Pre-configured firewall rules, DMZ, NAT, NAT-T, NAT helpers, Unlimited firewall configuration via CLI
Security	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), Port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacks)
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
SMS features	SMS status, SMS configuration, Send/Read SMS via HTTP POST/GET, EMAIL to SMS, SMS to Email, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Traffic Logging

TRB141

INDUSTRIAL RUGGED GPIO LTE GATEWAY

Industrial and small LTE Cat 1 Gateway equipped with multiple Inputs/Outputs and MicroUSB port. Compact design makes this Gateway perfect for applications where devices must be remotely managed using I/O's.

CONNECTIVITY

4G/LTE (Cat 1), 3G, 2G

DURABLE

Rugged aluminum housing

I/O

Wide range of multiple Inputs/Outputs for remote monitoring and control

9-30V

Wide range of supported power supply voltages

COMPACT

Small size, easy installation

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 1), 3G, 2G
CPU	Qualcomm, ARM Cortex A7, 1.2 GHz
Memory	512 MBytes Flash (70 MBytes for userspace), 128 MBytes RAM (50 MBytes for userspace)
Powering option	4pin power socket, 9-30 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
Inputs/Outputs	On 4pin socket: 2 x Digital input/Digital open collector output (configurable) On 16pin socket: 1 x Isolated input, 1 x 1-Wire interface, 1 x Analog input (with 4-20mA capability), 1 x Latching relay output, 1 x Non-latching relay output, 2 x Dry/Wet input (configurable)
Other	1 x Micro USB slave
Status LEDs	3 x Connection type, 5 x Signal strength, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	136 g

SOFTWARE

Operating system	RutOS
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Services	DDNS, VRRP, WEB filter, UPNP, Traffic Logging

TRB142

INDUSTRIAL RUGGED LTE RS232 GATEWAY

Ultra-small, lightweight and energy efficient IoT device equipped with mission-critical LTE connectivity. TRB142 comes with a widely used RS232 industrial interface for remote device management.

CONNECTIVITY

4G/LTE (Cat 1), 3G, 2G

DURABLE

Rugged aluminum housing

SERIAL

Equipped with RS232 for serial communication

9-30V

Wide range of supported power supply voltages

COMPACT

Small size, easy installation

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 1), 3G, 2G
CPU	Qualcomm, ARM Cortex A7, 1.2 GHz
Memory	512 MBytes Flash (70 MBytes for userspace), 128 MBytes RAM (50 MBytes for userspace)
Powering option	4pin power socket, 9-30 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
Inputs/Outputs	On 4pin socket: 2 x Digital input/Digital open collector output (configurable)
Serial	1 x RS232
Other	1 x Micro USB slave
Status LEDs	3 x Connection type, 5 x Signal strength, 1 x Power
Operating temperature	-40° C to 75° C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	135 g

SOFTWARE

Operating system	RutOS
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus

TRB145

INDUSTRIAL RUGGED LTE RS485 GATEWAY

Ultra-small, lightweight and energy efficient IoT device equipped with mission-critical LTE connectivity. TRB145 comes with a widely used RS485 Industrial interface for remote device management.

CONNECTIVITY

4G/LTE (Cat 1), 3G, 2G

DURABLE

Rugged aluminum housing

SERIAL

Equipped with RS485 for serial communication

9-30V

Wide range of supported power supply voltages

COMPACT

Small size, easy installation

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 1), 3G, 2G
CPU	Qualcomm, ARM Cortex A7, 1.2 GHz
Memory	512 MBytes Flash (70 MBytes for userspace), 128 MBytes RAM (50 MBytes for userspace)
Powering option	4pin power socket, 9-30 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
Inputs/Outputs	On 4pin socket: 2 x Digital input/Digital open collector output (configurable)
Serial	1 x RS485
Other	1 x Micro USB slave
Status LEDs	3 x Connection type, 5 x Signal strength, 1 x Power
Operating temperature	-40° C to 75° C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	130 g

SOFTWARE

Operating system	RutOS
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus

TRB245

INDUSTRIAL M2M LTE GATEWAY

Industrial All-In-One M2M LTE Cat 4 Gateway equipped with multiple Inputs/Outputs, RS232, RS485 and Ethernet interfaces. All these features allow this device to be used universally in M2M applications.

CONNECTIVITY

4G/LTE (Cat 4), 3G, 2G

DUAL SIM

With auto failover, backup WAN and other switching scenarios

SERIAL

RS232/RS485 serial communication interfaces

9-30V

Wide range of power supply voltages

I/O

Multiple Inputs and Outputs for remote monitoring and control

GNSS

Global Navigation Satellite System for location services with geofencing functionality

HARDWARE

Mobile	4G/LTE (Cat 4), 3G, 2G
CPU	Qualcomm, MIPS 24Kc, 650 MHz
Memory	16 MBytes Flash, 64 MBytes RAM
Powering option	16pin terminal, 9-30 VDC
SIM	2 x Internal SIM holders (2FF)
Antenna connectors	1 x SMA for mobile, 1 x SMA for GPS
Ethernet	1 x 10/100 Ethernet port
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Inputs/Outputs	On 16pin socket: 3 x Digital input/Digital open collector output (configurable), 1 x Analog input
Serial	1 x RS232, 1 x RS485
Status LEDs	3 x Connection type, 3 x Signal strength, 2 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	83 x 25 x 74 mm
Weight	165 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
NTP	NTP Server, NTP Client, Sync with: External NTP server, GNSS, Mobile operator
GNSS	NMEA forwarding, AVL, Geofencing
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus
Administration	Multi user, Configuration profiles, Diagnostics, logs, Configuration backup

TRB255

INDUSTRIAL M2M GATEWAY

Industrial All-In-One M2M LTE Cat-M1/NB-IoT/EGPRS Gateway equipped with multiple Inputs/Outputs, RS232, RS485 and Ethernet interfaces. All these features allow this device to be used universally in M2M applications.

CONNECTIVITY

4G/LTE (Cat M1), NB-IoT, 2G

DUAL SIM

With auto failover, backup WAN and other switching scenarios

SERIAL

RS232/RS485 serial communication interfaces

9-30V

Wide range of supported power supply voltages

I/O

Multiple Inputs and Outputs for remote monitoring and control

GNSS

Global Navigation Satellite System for location services with geofencing functionality

HARDWARE

Mobile	4G/LTE (Cat M1), NB-IoT, 2G
CPU	Qualcomm, MIPS 24Kc, 650 MHz
Memory	16 MBytes Flash, 64 MBytes RAM
Powering option	16pin terminal, 9-30 VDC
SIM	2 x Internal SIM holders (2FF)
Antenna connectors	1 x SMA for mobile, 1 x SMA for GPS
Ethernet	1 x 10/100 Ethernet port
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Inputs/Outputs	On 16pin socket: 3 x Digital input/Digital open collector output (configurable), 1 x Analog input
Serial	1 x RS232, 1 x RS485
Status LEDs	3 x Connection type, 3 x Signal strength, 2 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	83 x 25 x 74 mm
Weight	165 g

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Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
NTP	NTP Server, NTP Client, Sync with: External NTP server, GNSS, Mobile operator
GNSS	NMEA forwarding, AVL, Geofencing
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus
Administration	Multi user, Configuration profiles, Diagnostics, logs, Configuration backup

REMOTE WATER PUMP AUTOMATION USING SMS AND CALLS

ENERGY & UTILITIES

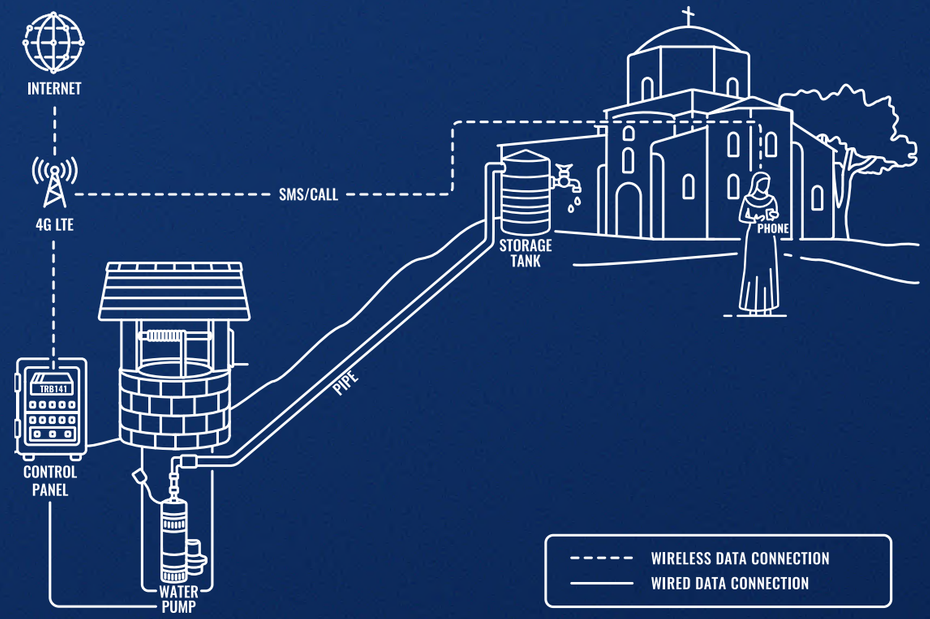
To avoid wastage of water and enable more efficient use of resources, more and more often water systems are getting automated. It ensures that water use is optimized and requires less human effort.

In this project, ALES company created an automation system for remote control of an underground well pump intended for transportation of sanitation and irrigation water in a remote monastery. The water was intended to be transported between two points with a 160 meters elevation and 1.5 km distance which crossed out the wired control option as too expendable.

SOLUTION
In this solution, the well, water pump, and control panel are located in a remote plain field, while the monastery, where the water should be transported, is located on a mountain 1,5 km away. The water pump allows to fill up the water storage tank located on the mountain via the water pipe.

The water pipe is not pumping the water continuously due to efficiency reasons. It can be remotely activated by using the control panel with a mobile Teltonika Networks TRB141 gateway, allowing to turn on the water pump whenever the water is needed. The pumping can be initiated either by calling or by sending an SMS to the TRB 141 gateway SIM card from a cell phone. After the tank is filled up, the pump can be remotely deactivated by using the same method (call or SMS).

BENEFITS
/Cost-effective and simple remotely controlled solution.
/Remote control by SMS – the pump can be managed by a simple SMS message sent by a specified list of users at any time.
/Remote control by call – the user can turn on the pump for a specified time frame simply by making a call.
/Easy to set up – documentation provided with the product is simple to understand and sufficient to utilize the entire capabilities of the device.
/ Simplified support enabled by the Remote Management System.



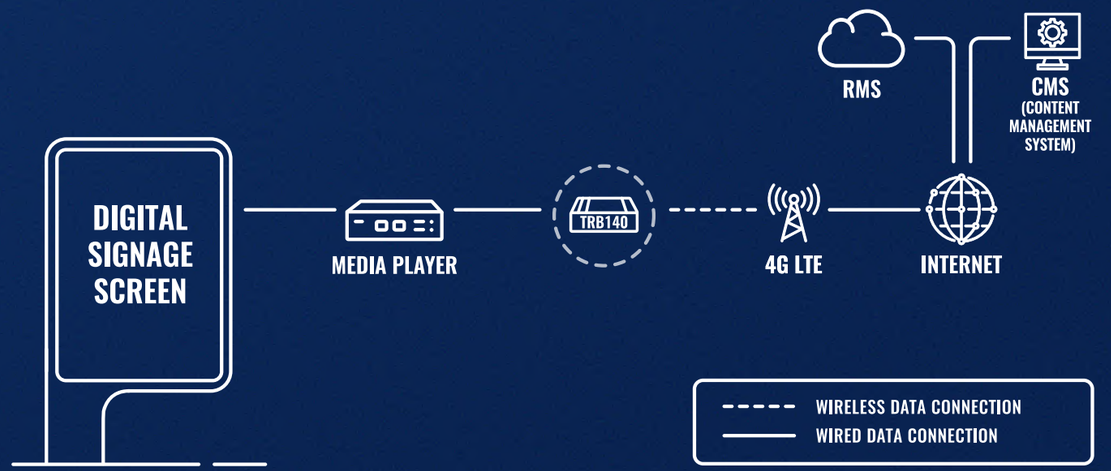
DIGITAL SIGNAGE & CELLULAR CONNECTIVITY

RETAIL

Digital Signage is a sub-segment of electronic signage and uses different technologies including LCD, LED, projection and many others to communicate messages and advertisements to the public for marketing or informational purposes The concept is not new at all and can be traced back to the neon signs first conceptualized by Georges Claude in 1910. Nowadays, higher quality screens and increased capabilities of media players resulted in the rising popularity of Digital Signage installations, some of which are even including concepts of augmented reality (AR). In fact, KBV Research estimates that the global Digital Signage market will reach $29.8 billion by 2024.

SOLUTION
As identified, reliable and convenient connectivity is essential for efficient content management across extensive Digital Signage infrastructure. Cellular solutions based on 4G LTE are prevalent in this use case because they eliminate multiple challenges, such as pace of solution deployment, different connectivity provider management, and dependency on 3rd party wired network infrastructure, which cannot guarantee 100% uptime. As defined in the topology above, the media player is responsible for playback of marketing content, such as pictures or video, while TRB140 is the device which enables the remote upload and management of such content.TRB140 is a 4G LTE enabled gateway, which is perfect for Digital Signage solutions because it is easy to deploy and scale due to compatibility with Teltonika Networks Remote Management System. With a single TRB140, the user can manage content on the media player and change the parameters and the playing order of the content.

BENEFITS
/Easy to manage – with Teltonika Remote Management System, system administrators can be in control of thousands of different sites with a single user interface.
/Quick to deploy – no need to wait for wired Internet access contracts and installations.
/Easy to scale – Teltonika TRB140 compatible with RMS which allows configuring an infinite amount of devices in minutes.
/Secure - infrastructure will be safe due to advanced security features of the TRB140, such as VPN, IPsec, Firewall and Access Control.
/Small size - TRB140 has impressively small footprint allowing it to be installed even in the most compact and design conscious Digital Signage enclosures.



ROUTERS

Our routers are equipped with a variety of wireless and wired connectivity options and technologies which makes them an essential tool to connect people, machines and infrastructure across most market sectors. The Teltonika Networks RUT series is engineered to be deployed easily in challenging connectivity scenarios and our RutOS based on Linux OpenWRT has become one of the most functional router operating systems in the market.

RUT240

INDUSTRIAL CELLULAR ROUTER

Compact, robust and powerful device tailored for Industrial M2M/IoT applications. RUT240 is equipped with 2 x Ethernet and Wireless interfaces with Hotspot functionality. Device provides secure and stable Internet connectivity for Industrial applications using RutOS software and security features with RMS support.

CONNECTIVITY

4G/LTE (Cat 4), 3G, 2G

WAN FAILOVER

Automatic switch to available backup connection

WIFI

Wireless Access Point with Hotspot functionality

COMPACT

Small size – easy integration

I/O

Digital Input/Output for remote monitoring and control

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 4), 3G, 2G
CPU	Atheros, MIPS 24Kc, 400 MHz
Memory	16 MBytes Flash, 64 MBytes RAM
Powering option	4pin power socket, 9-30 VDC
SIM	1 x External SIM holder (2FF)
Antenna connectors	2 x SMA for mobile, 1 x RP-SMA for WiFi
Ethernet	2 x 10/100 Ethernet ports: 1 x WAN (configurable as LAN), 1 x LAN
WiFi	IEEE 802.11b/g/n, Access point (AP), Station (STA)
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Status LEDs	3 x Connection type, 5 x Signal strength, 2 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option, plastic panels
Dimensions (W x H x D)	83 x 25 x 74 mm
Weight	135 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Auto APN, Band lock
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Security	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), Port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacksw
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
SMS features	SMS status, SMS configuration, Send/Read SMS via HTTP POST/GET, EMAIL to SMS, SMS to Email, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Traffic Logging

RUT300

INDUSTRIAL ETHERNET ROUTER

Rugged industrial fast Ethernet router that comes with the benefits of RutOS and the possibility to connect to the RMS. Five fast Ethernet ports, two configurable digital Inputs/Outputs, and a USB 2.0 allow to easily connect industrial machinery, office or retail equipment, and other devices to the internet, while advanced pre-configured Firewall and multiple VPNs ensures security.

INTERFACES

5 x Fast Ethernet ports (10/100 Mbps).
2 x Configurable digital Inputs/Outputs and USB 2.0

VPN

Numerous VPN services including OpenVPN, IPsec, PPTP, L2TP & DMVPN, L2TP, DMVPN, Stunnel and others

DURABILITY

Aluminum housing, which is capable to withstand harsh environments

VLAN

Supports up to 4096 VLAN IDs for VLAN tagging and port based VLANS

FIREWALL

Unlimited firewall configuration via CLI; DMZ; NAT; NAT-T

RMS

Compatible with Teltonika Remote Management System

HARDWARE

CPU	QCA9531, MIPS 24kc, 650 MHz
Memory	64 MB, DDR2
Storage	16 MB, SPI Flash
Powering option	4 pin power socket, 7-30 VDC
Ethernet	5 x 10/100 Ethernet ports: 1 x WAN, 4 x LAN
Inputs/Outputs	On 4 pin socket: 2 x Configurable digital Inputs/Outputs open collector output
Other	1 x USB Host
Status LEDs	5 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions (W x H x D)	100 x 30 x 85 mm
Weight	229 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Routing	Static routes, Routing rules, (Planned - Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP)
Firewall	Port forward, Traffic rules, Custom rules, Pre-configured firewall rules, DMZ, NAT, NAT-T, NAT helpers, Unlimited firewall configuration via CLI
Security	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), Port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacks)
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, WireGuard, ZeroTier, (Planned - Stunnel, SSTP, DMVPN)
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA
Services	DDNS, Wake On Lan (WOL), WEB filter, UPNP, Network shares (Samba), Traffic Logging
Administration	Multi user, Configuration profiles, Diagnostics, logs, Configuration backup

RUT360

LTE CAT6 INDUSTRIAL CELLULAR ROUTER

A successor of our best-selling model RUT240, RUT360 keeps its compact shape in a rugged aluminium housing but offers more processing power and better cellular speeds up to 300Mbps with Carrier Aggregation. Unique programming, remote monitoring, and security features make RUT360 perfect for IoT and M2M applications, where secure and reliable connectivity is a must and the mobile data speeds are limited.

4G LTE CAT 6

Cellular speeds up to 300Mbps with Carrier Aggregation

WIFI

802.11 b/g/n WiFi

COMPACTNESS

Small size - easy integration anywhere

DURABILITY

Rugged aluminium housing

SECURITY

Firewall and numerous VPN services, including OpenVPN, IPsec, PPTP, L2TP & SSTP

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 6), 3G
CPU	Qualcomm, MIPS 24Kc, 650 MHz
Memory	16 MBytes Flash, 128 MBytes RAM
Powering option	4pin power socket, 9-30 VDC
SIM	1 x External SIM holder (2FF)
Antenna connectors	2 x SMA for mobile, 2 x RP-SMA for WiFi
Ethernet	2 x 10/100 Ethernet ports: 1 x WAN (configurable as LAN), 1 x LAN
WiFi	IEEE 802.11b/g/n, Access point (AP), Station (STA)
Inputs/Outputs	On 4pin socket: 2 x Digital input/Digital open collector output (configurable)
Status LEDs	2 x Connection type, 3 x Signal strength, 2 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	100 x 30 x 85 mm
Weight	247 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Auto APN, Band lock
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Security	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), Port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacks)
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP
Monitoring and management	WEB UI, CLI, SSH, SMS, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
SMS features	SMS status, SMS configuration, Send/Read SMS via HTTP POST/GET, EMAIL to SMS, SMS to Email, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Traffic Logging

RUT850

AUTOMOTIVE CELLULAR ROUTER

E-mark certified, ultra-slim router equipped with Ignition detection (sleep mode), Overvoltage Protection and Automotive FAKRA connectors. RUT850 comes with RutOS software and security features and custom GNSS tracking protocol that is compatible with main Global AVL tracking platforms.

CONNECTIVITY

4G/LTE (Cat 4), 3G, 2G

GNSS

Global Navigation Satellite System for location services with geofencing functionality

WIFI

Wireless Access Point with Hotspot functionality

SLEEP MODE

With ignition detection and overvoltage protection

DURABLE

Vibration resistant FAKRA connectors

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 4), 3G, 2G
CPU	Atheros, MIPS 74Kc, 550 MHz
Memory	16 MBytes Flash, 64 MBytes RAM
Powering option	4pin power socket, 9-30 VDC
SIM	1 x External SIM holder (2FF)
Antenna connectors	2 x FAKRA D for mobile, 1 x FAKRA C for GPS
WiFi	IEEE 802.11b/g/n, Access point (AP), Station (STA)
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Ignition detection	On 4pin socket: 1 x pin for ignition detection
Status LEDs	3 x Connection type, 5 x Signal strength, 1 x WiFi, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Plastic housing
Dimensions (W x H x D)	131 x 18 x 79 mm
Weight	110 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Network protocols	TCP, UDP, IPv4, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Monitoring and management	WEB UI, SSH, SMS, TR-069, RMS
Connection monitoring	Ping Reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA
Hotspot	External/Internal Radius, SMS OTP, MAC authentication, Walled Garden
Supported Hotspot platforms	IronWiFi, HotspotSystem, Cloud4Wi, SAI + WiFi, MugiCloud, Purple.ai
NTP	NTP Server, NTP Client, Sync with: External NTP server, GNSS
GNSS	NMEA forwarding, AVL, Geofencing

RUT950

INDUSTRIAL CELLULAR ROUTER

This router is equipped with Dual-SIM, 4 x Ethernet interfaces and WiFi. Device is designed as Main/Backup Internet source and can guarantee reliable Internet connection with high data throughput and data redundancy. RUT950 comes with RutOS software and security features with RMS support.

CONNECTIVITY

4G/LTE (Cat 4), 3G, 2G

WAN FAILOVER

Automatic switch to available backup connection

WIFI

Wireless Access Point with Hotspot functionality

DUAL SIM

With auto failover, backup WAN and other switching scenarios

ETHERNET

4 x Ethernet interfaces with VLAN functionality

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 4), 3G, 2G
CPU	Atheros, MIPS 74Kc, 550 MHz
Memory	16 MBytes Flash, 128 MBytes RAM
Powering option	4pin power socket, 9-30 VDC
SIM	2 x External SIM holders (2FF)
Antenna connectors	2 x SMA for mobile, 2 x RP-SMA for WiFi
Ethernet	4 x 10/100 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
WiFi	IEEE 802.11b/g/n, Access point (AP), Station (STA)
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Status LEDs	1 x Bi-Color connection type, 5 x Signal strength, 4 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option, plastic panels with flat mounting option
Dimensions (W x H x D)	109 x 50 x 103 mm
Weight	263 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, NHRP), Routing rules
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Hotspot	External/Internal Radius, SMS OTP, MAC authentication, Walled Garden
Supported Hotspot platforms	IronWiFi, HotspotSystem, Cloud4Wi, SAI + WiFi, MugiCloud, Purple.ai
SMS features	SMS status, SMS configuration, Send/Read SMS via HTTP POST/GET, EMAIL to SMS, SMS to Email, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply, SMPP
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Traffic Logging

RUT955

INDUSTRIAL CELLULAR ROUTER

Equipped with Dual-SIM, 4 x Ethernet, WiFi and RS232, RS485, USB interfaces and Inputs/Outputs. RUT955 comes with RutOS advanced software features such as Modbus, SNMP, TR-069, NTRIP, MQTT protocol support and custom GNSS tracking protocol that is compatible with Global AVL tracking platforms.

CONNECTIVITY

4G/LTE (Cat 4), 3G, 2G

DUAL SIM

For additional connection reliability

GNSS

Global Navigation Satellite System for location services and time synchronization

I/O

Multiple digital and analog inputs and outputs for equipment control and event notification

SERIAL

RS232/RS485 serial communication interfaces

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 4), 3G, 2G
CPU	Atheros, MIPS 74Kc, 550 MHz
Memory	16 MBytes Flash, 128 MBytes RAM
Powering option	4pin power socket, 9-30 VDC
SIM	2 x External SIM holders (2FF)
Antenna connectors	2 x SMA for mobile, 2 x RP-SMA for WiFi, 1 x SMA for GPS
Ethernet	4 x 10/100 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
WiFi	IEEE 802.11b/g/n, Access point (AP), Station (STA)
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output On 10pin socket: 1 x Isolated digital input, 1 x Digital dry input, 1 x Analog input, 1 x Isolated open collector output (requires external voltage), 1 x Relay output (non-latching)
Serial	1 x RS232, 1 x RS485
Other	1 x USB host, 1 x MicroSD
Status LEDs	1 x Bi-Color connection type, 5 x Signal strength, 4 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option, plastic panels with flat mounting option
Dimensions (W x H x D)	109 x 50 x 103 mm
Weight	295 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
NTP	NTP Server, NTP Client, Sync with: External NTP server, GNSS, Mobile operator
GNSS	NMEA forwarding, AVL, Geofencing
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus

RUTX08

INDUSTRIAL ETHERNET ROUTER

This robust industrial router is equipped with 4 x Gigabit Ethernet ports, Quad-core CPU and 256 MB of RAM. These powerful specifications combined with core RutOS software features, such as multiple VPN services, advanced Firewall and RMS support, makes this device a superb Industrial performer.

GIGABIT ETH

4 x Gigabit Ethernet ports with up to 128 port/tag-based VLANs supported

I/O & USB

Digital Input / Output for remote monitoring and control and USB 2.0 interface

9-50 V

This router supports a wide range of power supply voltage for versatile integration

PROTOCOLS

Multiple protocols supported including MQTT, Modbus TCP, BGP, GRE

SECURITY

Firewall and numerous VPN services including OpenVPN, IPsec, PPTP, L2TP & DMVPN

RMS

Compatible with Teltonika Remote Management System

HARDWARE

CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4pin power socket, 9-50 VDC
Ethernet	4 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB Host
Status LEDs	8 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions (W x H x D)	115 x 32 x 95 mm
Weight	345 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
Firewall	Port forward, Traffic rules, Custom rules, Pre-configured firewall rules, DMZ, NAT, NAT-T, NAT helpers, Unlimited firewall configuration via CLI
Security	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), Port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacks)
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP, WireGuard, ZeroTier
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Network shares (Samba), Traffic Logging
Administration	Multi user, Configuration profiles, Diagnostics, logs, Configuration backup

RUTX09

INDUSTRIAL CELLULAR ROUTER

This powerful LTE Cat 6 cellular industrial router is designed for professional and IoT applications where steady and fast connection and high data throughput is required.

4G LTE CAT 6

Cellular speeds up to 300Mbps with Carrier Aggregation

DUAL SIM

With auto failover, backup WAN and other switching scenarios

GIGABIT ETH

4 x Gigabit Ethernet ports with up to 128 port/tag-based VLANs supported

GNSS

Global Navigation Satellite System for location services and time synchronization

SECURITY

Firewall and numerous VPN services including OpenVPN, IPsec, PPTP, L2TP & DMVPN

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 6), 3G
CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4pin power socket, 9-50 VDC
SIM	2 x External SIM holders (2FF)
Antenna connectors	2 x SMA for mobile, 1 x SMA for GPS
Ethernet	4 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB host
Status LEDs	3 x WAN type, 2 x Connection type, 5 x Signal strength, 8 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions (W x H x D)	115 x 44 x 95 mm
Weight	455 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Network	Failover (Network backup), VLAN, QoS, Load Balancing
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP, WireGuard, ZeroTier
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
NTP	NTP Server, NTP Client, Sync with: External NTP server, GNSS, Mobile operator
GNSS	NMEA forwarding, AVL, Geofencing
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Network shares (Samba), Traffic Logging
Administration	Multi user, Configuration profiles, Diagnostics, logs, Configuration backup

RUTX10

PROFESSIONAL ETHERNET ROUTER

This professional router combines the best of wired and wireless routing functionalities with Gigabit Ethernet, Bluetooth LE, and AC Wi-Fi. Advanced remote management capabilities along with numerous security & networking protocols supported make RUTX10 an ideal choice for professional applications.

GIGABIT ETH

4 x Gigabit Ethernet ports with up to 128 port/tag-based VLANs supported

I/O & USB

Digital Input / Output for remote monitoring and control and USB 2.0 interface

WIFI & BT

Wave-2 802.11ac Dual Band WIFI and Bluetooth LE

PROTOCOLS

Multiple protocols supported including MQTT, Modbus TCP, BGP, GRE

SECURITY

Firewall and numerous VPN services including OpenVPN, IPsec, PPTP, L2TP & DMVPN

RMS

Compatible with Teltonika Remote Management System

HARDWARE

CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4pin power socket, 9-50 VDC
Antenna connectors	2 x RP-SMA for WiFi, 1 x RP-SMA for Bluetooth
Ethernet	4 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
WiFi	IEEE 802.11a/b/g/n/ac 2.4GHz/5GHz, Access point (AP), Station (STA)
Bluetooth	4.0 (Low energy)
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB host
Status LEDs	2 x WiFi, 8 x Etherner, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions	115 x 32 x 95 mm
Weight	355 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP, WireGuard, ZeroTier
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Hotspot	External/Internal Radius, MAC authentication, Walled Garden
Supported Hotspot platforms	IronWiFi, HotspotSystem, Cloud4Wi, SAI + WiFi, MugiCloud, Purple.ai
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Network shares (Samba), Traffic Logging

RUTX11

INDUSTRIAL CELLULAR ROUTER

This powerful LTE Cat 6 cellular industrial router is designed for professional and IoT applications where steady and fast connection and high data throughput is required. It is equipped with 4 x Gigabit Ethernet, Bluetooth LE, and AC Wi-Fi with remote management capabilities.

4G LTE CAT 6

Cellular speeds up to 300Mbps with Carrier Aggregation

DUAL SIM

With auto failover, backup WAN and other switching scenarios

WIFI & BT

Wave-2 802.11ac Dual Band WIFI and Bluetooth LE

GNSS

Global Navigation Satellite System for location services and time synchronization

PROTOCOLS

Multiple protocols supported including MQTT, Modbus TCP, BGP, GRE

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 6), 3G
CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4pin power socket, 9-50 VDC
SIM	2 x External SIM holders (2FF)
Antenna connectors	2 x SMA for mobile, 2 x RP-SMA for WiFi, 1 x RP-SMA for Bluetooth, 1 x SMA for GPS
Ethernet	4 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
WiFi	IEEE 802.11a/b/g/n/ac 2.4GHz/5GHz, Access point (AP), Station (STA)
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Bluetooth	4.0 (Low energy)
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB host
Status LEDs	4 x WAN type, 2 x Connection type, 5 x Signal strength, 2 x WiFi, 8 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions	115 x 44 x 95 mm
Weight	456 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP, WireGuard, ZeroTier
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Hotspot	External/Internal Radius, SMS OTP, MAC authentication, Walled Garden
NTP	NTP Server, NTP Client, Sync with: External NTP server, GNSS, Mobile operator
GNSS	NMEA forwarding, AVL, Geofencing

RUTX12

DUAL LTE CAT 6 INDUSTRIAL CELLULAR ROUTER

Powerful Dual LTE Cat 6 router is designed for mission critical applications. Equipped with two LTE modems for dual simultaneous connections allowing instant seamless LTE service switching and load balancing features make this device irreplaceable in applications where loosing connection is not an option.

DUAL LTE

Cellular speeds up to 600Mbps with dual simultaneous LTE CAT 6 connections

DUAL SIM

Instant failover switching

WIFI & BT

Wave-2 802.11ac Dual Band WIFI and Bluetooth LE

GNSS

Global Navigation Satellite System for location services and time synchronization

LOAD BALANCING

Allows to use multiple WAN sources to increase throughput

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	2 X 4G/LTE (Cat 6), 3G
CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4pin power socket, 9-50 VDC
SIM	2 x External SIM holders (2FF)
Antenna connectors	4 x SMA for mobile, 2 x RP-SMA for WiFi, 1 x RP-SMA for Bluetooth, 1 x SMA for GPS
Ethernet	5 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 4 x LAN
WiFi	IEEE 802.11a/b/g/n/ac 2.4GHz/5GHz, Access point (AP), Station (STA)
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Connectors	1 x 4 pin DC, 5 x Ethernet, 4 x SMA for LTE, 2 x WiFi RP-SMA, 1 x SMA for GNSS, 1 x RP-SMA for Bluetooth
Bluetooth	4.0 (Low energy)
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB host
Status LEDs	4 x WAN type, 6 x Connection type, 6 x Signal strength, 2 x WiFi, 10 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions (W x H x D)	132 x 44 x 95 mm
Weight	540 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Hotspot	External/Internal Radius, SMS OTP, MAC authentication, Walled Garden
Supported Hotspot platforms	IronWiFi, HotspotSystem, Cloud4Wi, SAI + WiFi, MugiCloud, Purple.ai

RUTX14

4G LTE CAT 12 INDUSTRIAL CELLULAR ROUTER

RUTX14 is the fastest single modem LTE-A Cat 12 router in the Teltonika Networks range. Combined with two SIM cards, Wave-2 dual-band WIFI, 5 Gigabit Ethernet ports, and automatic failover, you may expect high compatibility, unbeatable network resilience, and exceptional speed.

4G LTE CAT12

Download up to 600 Mbps
Upload up to 150 Mbps

WIFI & BT

Wave-2 802.11ac Dual Band WIFI and Bluetooth LE

DUAL SIM

With auto failover, backup WAN and other switching scenarios

LOAD BALANCING

Allows to use multiple WAN sources to increase throughput

GNSS

Global Navigation Satellite System for location services and time synchronization

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 12)
CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4 pin power socket, 9-50 VDC
SIM	2 x External SIM holders (2FF)
Antenna connectors	4 x SMA for mobile, 2 x RP-SMA for WiFi, 1 x RP-SMA for Bluetooth, 1 x SMA for GPS
Ethernet	5 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 4 x LAN
WiFi	IEEE 802.11b/g/n 2.4GHz, IEEE 802.11n/ac 5GHz, Access point (AP), Station (STA)
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Connectors	1 x 4 pin DC, 5 x Ethernet, 4 x SMA for LTE, 2 x WiFi RP-SMA, 1 x SMA for GNSS, 1 x RP-SMA for Bluetooth
Bluetooth	4.0 (Low energy)
Inputs/Outputs	On 4 pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB host, 1 x Grounding screw
Status LEDs	4 x WAN type, 2 x Connection type, 3 x Signal strength, 2 x WiFi, 10 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions (W x H x D)	132 x 44 x 95 mm
Weight	515 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list (planned), Data/SMS limits
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Hotspot	External/Internal Radius, SMS OTP, MAC authentication, Walled Garden
Supported Hotspot platforms	IronWiFi, HotspotSystem, Cloud4Wi, SAI + WiFi, MugiCloud, Purple.ai

RUTXR1

ENTERPRISE SFP/LTE RACK MOUNT READY ROUTER

Rack-mounted LTE Cat6 router with redundant power supplies and WAN interfaces (WAN failover), Dual SIM, SFP, USB and dedicated console ports. This feature-rich device with well-known and powerful RutOS is perfect where fast and ultra-reliable connection is needed.

4G LTE CAT 6

Cellular speeds up to 300Mbps with Carrier Aggregation

DUAL SIM

With auto failover, backup WAN and other switching scenarios

WIFI

Wave-2 802.11ac Dual Band WIFI

SFP

SFP port for long-range Fiber-optic communication

GIGABIT ETH

5 x Gigabit Ethernet ports

RMS

Compatible with Teltonika Remote Management System

HARDWARE

Mobile	4G/LTE (Cat 6), 3G
CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4pin power socket, 9-50 VDC (main) 4pin power socket, 9-50 VDC (redundant)
SIM	2 x External SIM holders (2FF)
Antenna connectors	2 x SMA for mobile, 2 x RP-SMA for WiFi
Ethernet	5 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 4 x LAN
WiFi	IEEE 802.11a/b/g/n/ac 2.4GHz/5GHz, Access point (AP), Station (STA)
Other	1 x USB host, 1 x SFP, 1 x RS232 console
Status LEDs	2 x WAN type, 2 x Connection type, 3 x Signal strength, 2 x SIM, 2 x Console, 10 x Ethernet, 2 x Power
Operating temperature	-40 °C to 75 °C
Housing	Full aluminium rack unit housing with grounding capability
Dimensions (W x H x D)	272 x 44 x 123 mm
Weight	1050 g

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP, WireGuard, ZeroTier
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Network shares (Samba), Traffic Logging

REAL-TIME BEACH OCCUPANCY MONITORING

SMART CITY

Tourism is one of the main economic drivers in Spain. Although it has been highly disrupted due to the global pandemic, with certain measures in place, people may start enjoying some of the usual holiday activities, including spending time at the beach. The number of people allowed on public beaches is strictly limited. Technological solutions need to be implemented to monitor the capacity and busyness of each beach in real-time to ensure safety and inform the public for better planning.

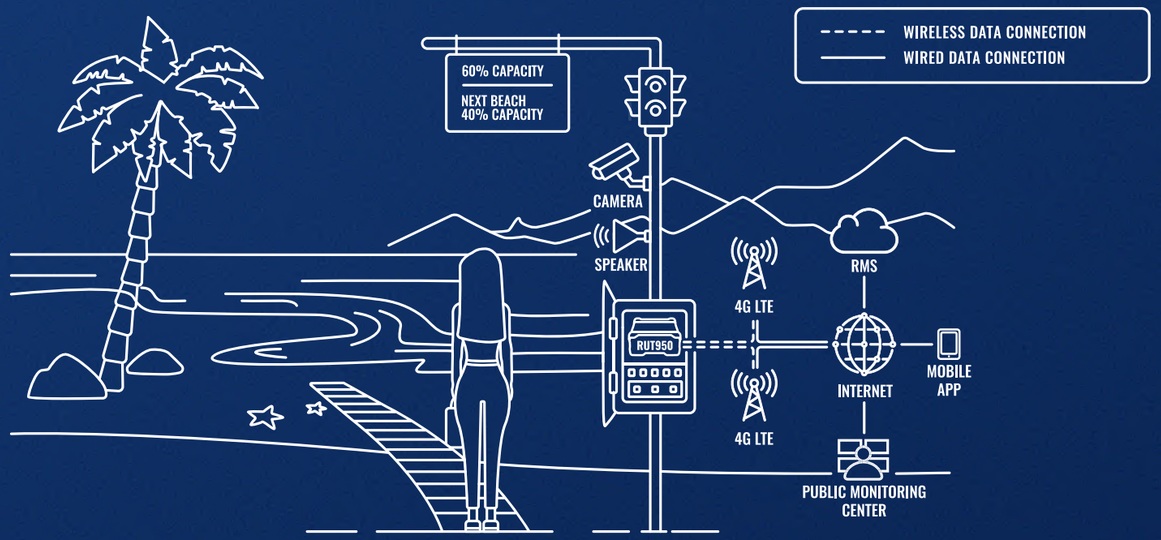
SOLUTION

Several sensors and cameras are installed to count the number of people at the beach. These devices are connected to the RUT950 dual-SIM cellular router providing connectivity to the solution. The collected information is sent to the Public Monitoring Center and further communicated through various channels. A digital signage screen shows the occupancy rates at the entrance. It also informs about the busyness of nearby beaches. A speaker is connected to the solution to communicate important announcements and the traffic is managed by a traffic light. Whenever the maximum capacity is reached, it turns red and no more people are allowed to enter.

The same information is also sent to another important piece of the solution - the mobile app. It allows for people to check the information before their trip and avoid queues by choosing the beach according to availability in real-time. This way two major goals are achieved - the safety of the public and at least partial revival of tourism, which has been greatly affected by the pandemic.

BENEFITS

/Reliability ensured by dual SIM and auto-failover switching to a backup option whenever any network issues occur.
/Industrial robustness allows to use the device in outside conditions since it can sustain a temperature range between -40 °C to 75 °C and humidity of 10% to 90%.
/Professional level security ensured by a pre-installed Firewall, multiple VPNs and attack prevention.
/ A single RUT950 router is enough to provide connectivity for the whole solution.
/ Remote management and maintenance via Remote Management System (RMS).



IoT FOR REDUCING RISKS IN CONSTRUCTION SITES

SMART CITY

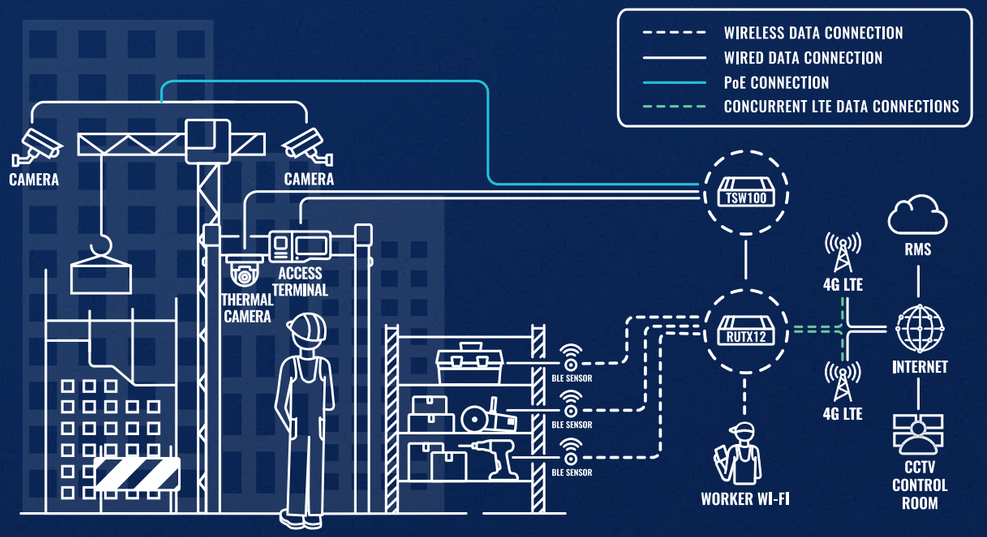
The construction business is challenging for many reasons. One of the biggest problems is ensuring the security of the sites. Can you imagine that in the UK alone construction site theft costs 800 million pounds per year? The most common target of thieves is expensive construction equipment and costly materials, like metal. Besides theft, construction sites often become victims of vandals or arsonists. Implementing smart technology is an efficient way to prevent such crimes or track the criminals after a break-in.

SOLUTION

In this solution, we have chosen a highly powerful and rugged RUTX12 router. It has two simultaneously operational LTE Cat6 modems and a load balancing option for fast and seamless performance. Dual SIM with instant automatic failover ensures there is no internet downtime.
Another Teltonika Networks device - TSW100 is used to connect CCTV cameras with Power over Ethernet (PoE) technology for a simplified power installation. The footage from the cameras is sent to a Centralized CCTV Control room for remote management and monitoring. This way the footage is safe from theft and damage. Various expensive tools and machinery have got ID Coin or ID Puck sensors for easy inventory tracking using Bluetooth. Besides, the Slim ID beacons enable easy monitoring of people entering and leaving the site at an exact time. Zerotouch access control with a thermal camera at the entrance ensures staff with fever cannot enter the site and is important for the prevention of COVID-19 or other diseases.

BENEFITS

/Easy installation allows using the same infrastructure on multiple sites regardless of location.
/Reliable and fast connection ensured by two simultaneously working LTE Cat 6 modems and a load balancing.
/Safe storage of CCTV data outside of the construction site.
/Real-time tracking of tools using Bluetooth technology.
/Remote management allows to access data about employee working hours, location of tools and equipment, video footage as well as complete configuration, updates, and troubleshooting from anywhere in the world.
/COVID-19 prevention is enabled by zero-touch access control and a thermal camera.



SWITCHES

Teltonika Networks provides a range of industrial Ethernet Switches. They feature industrial-grade reliability, network redundancy, security and easy management. Switches have multiple mounting options for faster and easier installations.

TSW100

INDUSTRIAL UNMANAGED POE+ SWITCH

TSW100 – 5-port, unmanaged full Gigabit Ethernet switch supporting Power-over-Ethernet (802.3af and 802.3at standards). This device is classified as power source equipment (PSE), and when used in this way, TSW100 switch enables centralization of the power supply, providing up to 30 watts of power per port and reducing the effort for installing power. It has 10/100/1000 Mbps Ethernet ports to provide an economical high-bandwidth solution for your industrial Ethernet network.

POE

4 x PoE ports with 802.3af and 802.3at support

DURABLE

Rugged aluminium housing

MOUNTING

DIN rail and surface mounting options

POWER BUDGET

Total power budget at PSE up to 120 W

ETHERNET

5 x Gigabit Ethernet with speeds up to 1000 Mbps

PLUG-N-PLAY

No additional configuration needed

HARDWARE

Powering option	4pin power socket, 7-57 VDC
Power consumption	Idle: < 2 W, Max: < 9 W (no PoE device connected)
PoE standart	802.3af/at (max 30 W per port, total power budget 120W*)
Ethernet	5 x 10/100/1000 Ethernet ports: 4 x PoE, 1 x Uplink
Status LEDs	10 x Ethernet, 1 x Power
Ingress protection rating	IP30
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with wall or DIN rail mounting option and grounding capability
Dimensions	115 x 32 x 95 mm
Weight	340 g

PERFORMANCE SPECIFICATIONS

Bandwidth	10 Gbps
Packet buffer	128 KB
Jumbo frame support	9216 bytes
MAC address table size	2K entries
Auto MDI/MDI-X Cable Detection	Yes

*Provided power supply only allows 60 W PoE power budget at PSE, to reach maximum 120 W at PSE >130 W power PSU must be used

TSW110

L2 UNMANAGED SWITCH

TSW110 is a layer 2 unmanaged switch that is a simplified version of our earlier product – TSW100. It is a tiny but rugged device for industrial high bandwidth applications requiring a reliable data connection. It has five Gigabit Ethernet ports and supports wide power supply voltages (9-30 V).

PLUG-N-PLAY

No additional configuration needed

DURABILITY

Rugged aluminium housing

MOUNTING

DIN rail and surface mounting options

RESILIENT

Operating temperature -40 °C to 75 °C

9-30 V

Wide range of supported power supply voltages

GIGABIT ETH

5 x Gigabit Ethernet with speeds up to 1000 Mbps

HARDWARE

Powering option	4pin power socket, 9-30 VDC
Power consumption	Idle: < 0.4 W, Max: < 1.8 W (no PoE device connected)
Ethernet	5 x 10/100/1000 Ethernet ports
Status LEDs	10 x Ethernet, 1 x Power
Ingress protection rating	IP30
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with wall or DIN rail mounting option and grounding capability
Dimensions	100 x 30 x 85 mm
Weight	227 g

PERFORMANCE SPECIFICATIONS

Bandwidth	10 Gbps
Packet buffer	128 KB
Jumbo frame support	9216 bytes
MAC address table size	2K entries
Auto MDI/MDI-X Cable Detection	Yes

RELIABLE CONNECTION OF INDUSTRIAL SYSTEMS

INDUSTRIAL & AUTOMATION

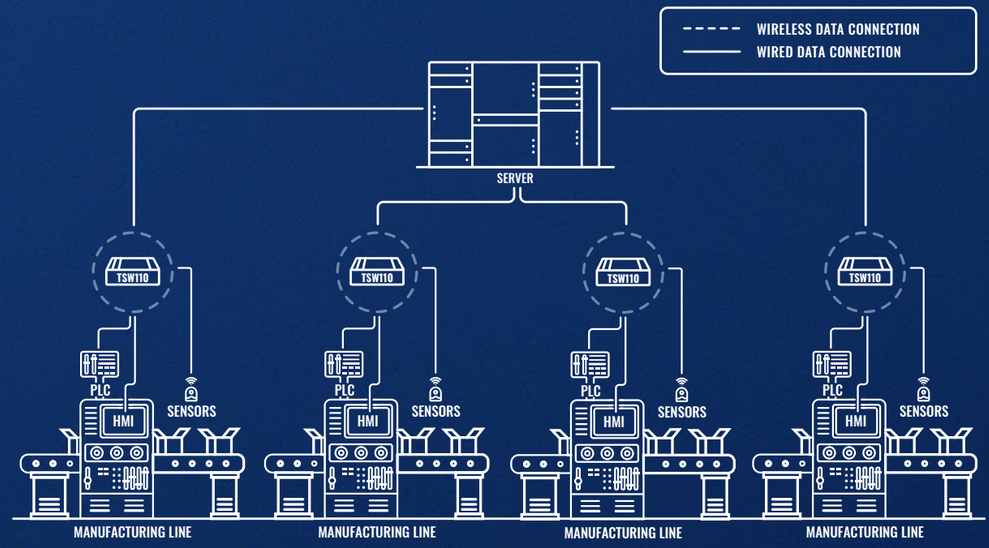
Industrial communication is changing. The rise of IoT caused the industrial sector to evolve and turn to automation to survive in the competitive market and maximize their potential in sense of time resources, productivity and scale.
A problem with the legacy industrial protocols is that due to long lifecycle of industrial systems, over the years they accumulated many various standards. It is difficult to implement such a variety of protocols into nowadays automation tools.
Ethernet-based solutions are becoming the new standard in the industrial communication. As it is more flexible, economical and speedy, we may witness more and more solutions changing their serial protocols to IP.

SOLUTION

In factories, there usually are multiple different manufacturing lines. All of them consist of various HMIs, PLCs, and sensors interconnected into a network. This task is accomplished by a TSW110 industrial switch, which works as an intermediary among all pieces and enables data transmission to the server, where it can be processed and analyzed.
TSW110 is an unmanaged industrial switch with five 10/100/1000 Mbps Ethernet ports for an economical highbandwidth solution that is more than enough for connecting various manufacturing equipment.
Besides, it's compact size combined with DIN rail or surface mounting options make it a quick and easy task to deploy it. This plug-n-play device will take seconds to set up!
Factory environment requires a rugged device. Therefore, a product with sturdy aluminum housing is the best option. TSW110 operates in a wide range of temperatures - from -40 C to 75 C, so it offers a broad amplitude of application scenarios. For example, it would work just as smoothly in factories producing frozen products as in a confectionery.

BENEFITS

/Compact – measuring 100 x 30 x 85 mm, this device fits in any electronic box or server cabinet and takes seconds to deploy using a DIN rail or surface mounting options.
/Wide temperature range – from -40 to 75 C, ensures reliable connectivity in most industrial environments.
/Sturdy – we chose aluminum housing for this product to increase durability.
/Plug-n-Play – no additional set-up required.
/Economical – this device offers exactly what is needed in most industrial applications with no excess functionalities, making it very economical and competitive in the market.



RELIABLE MULTIPLE CAMERA CONNECTIVITY

SMART CITY

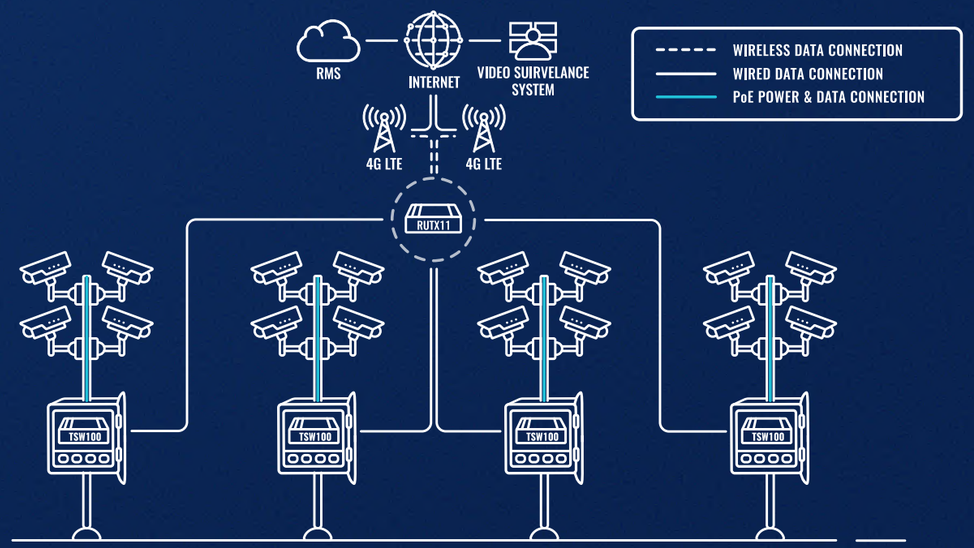
The adoption of Closed-circuit television (CCTV) surveillance has been steadily growing in recent years. This technology provides reliable information for area monitoring, public order, and crime prevention. Surveillance systems play an integral role today because they are fast and easy to deploy and provide valuable data for private and public security and business operations. Finally, CCTV solutions are highly demanded across Smart City projects and can enable smart solutions such as smart parking and retail business intelligence.

SOLUTION

As presented in the topology, the RUTX11 cellular router is responsible for stable and robust Internet connectivity delivered through 4G LTE. At the same time, all CCTV cameras are connected to PoE (Power-over-Ethernet) compatible switch - TSW100. This device is equipped with five Gigabit Ethernet ports, four of which support IEEE 802.3af and IEEE802.3 at PoE standards. Because of this TSW100 can power up the devices up to 30W power per port. Router and switch can withstand harsh weather conditions with wide operating temperature ranges and have numerous mounting options for faster and easier installations. This solution can be deployed very fast and can be operational within a few hours. The router – RUTX11 - is compatible with the Teltonika Remote Management System, which allows remote set-up, configuration, and management of the whole solution.

BENEFITS

/Reliable connectivity – Dual SIM functionality makes mission-critical connectivity in remote areas.
/Quick to deploy – no need to wait for wired Internet access deployment, the solution can be preconfigured before installation on-site.
/Easy to install – with TSW100 and PoE technology, you can just use Ethernet for both power and data delivered to the cameras.
/Industrial Mounting Options – Both switch and router can be mounted on DIN Rail with the help of accessories.
/Easy to manage – with Teltonika Remote Management System, system administrators can be in control of remote infrastructure with a convenient, user-friendly interface.
/Secure - data will be safe due to advanced security features of the RUTX11, such as VPN, IPsec, Firewall, and Access Control.



FEATURE COMPARISON

	MODEMS		GATEWAYS						SWITCHES	
	TRM240	TRM250	TRB140	TRB141	TRB142	TRB145	TRB245	TRB255	TSW100	TSW110
4G/LTE category	Cat1	M1/NB	Cat4	Cat1	Cat1	Cat1	Cat4	M1/NB		
3G	•		•	•	•	•	•			
2G	•	•	•	•	•	•	•	•		
CPU (MHz)			1200	1200	1200	1200	650	650		
RAM (MB)			128	128	128	128	64	64		
Flash memory (MB)			512	512	512	512	16	16		
Passive PoE			•							•
PoE out									802.3af/at	
Power voltage (VDC)	5	5	9-30	9-30	9-30	9-30	9-30	9-30	7-57	9-30
SIM card slots	1	1	1	1	1	1	2	2		
Ethernet ports			1				1	1	5	5
Ethernet speed (Mbps)			1000				100	100	1000	1000
WiFi standard										
GNSS							•	•		
Inputs/Outputs			2	8	2	2	4	4		
RS232					•		•	•		
RS485						•	•	•		
Bluetooth										
USB	Slave	Slave	Slave	Slave	Slave	Slave				
DIN Rail mounting	•	•	•	•	•	•	•	•	•	•
Rack mounting										
Flat surface mounting	•	•	•	•	•	•	•	•	•	•
Grounding terminal									•	•
Sleep mode	•	•								
RMS support			•	•	•	•	•	•		
RutOS			•	•	•	•	•	•		

FEATURE COMPARISON

	ROUTERS												
Products key features	RUT240	RUT300	RUT360	RUT850	RUT950	RUT955	RUTX08	RUTX09	RUTX10	RUTX11	RUTX12	RUTX14	RUTXR1
4G/LTE category	Cat4		Cat6	Cat4	Cat4	Cat4		Cat6		Cat6	2xCat6	Cat12	Cat6
3G	•		•	•	•	•		•		•	•	•	•
2G	•			•	•	•							
CPU (MHz)	400	650	650	550	550	550	4x717	4x717	4x717	4x717	4x717	4x717	4x717
RAM (MB)	64	64	128	64	128	128	256	256	256	256	256	256	256
Flash memory (MB)	16	16	16	16	16	16	256	256	256	256	256	256	256
Passive PoE	•	•			•	•	•	•	•	•	•	•	
Power voltage (VDC)	9-30	7-30	9-30	9-30	9-30	9-30	9-50	9-50	9-50	9-50	9-50	9-50	2x(9-50)
SIM card slots	1		1	1	2	2		2		2	2	2	2
Ethernet ports	2	5	2		4	4	4	4	4	4	5	5	5
Ethernet speed (Mbps)	100	100	100		100	100	1000	1000	1000	1000	1000	1000	1000
WiFi standard	n		n	n	n	n			ac	ac	ac	ac	ac
GNSS				•		•				•	•	•	
Inputs/Outputs	2	2	2	2	2	6	2	2	2	2	2	2	
RS232						•							
RS485						•							
Bluetooth									•	•	•	•	
USB		Host				Host	Host	Host	Host	Host	Host	Host	Host
DIN Rail mounting	•	•	•		•	•	•	•	•	•	•	•	
Rack mounting													•
Flat surface mounting	•	•	•	•	•	•	•	•	•	•	•	•	
Grounding terminal							•	•	•	•	•	•	•
Sleep mode				•									
RMS support	•	•	•	•	•	•	•	•	•	•	•	•	•
RutOS	•	•	•	•	•	•	•	•	•	•	•	•	•

ACCESSORIES / POWERING OPTIONS

Power supply, 4.5 W
EU: PR3PTEU3 // UK: PR3PTUK3
AU: PR3PTAU3 // US: PR3PTUS3

Power supply, 9 W
EU: PR3PUEU3 // UK: PR3PUUK3
AU: PR3PUAU3 // US: PR3PUUS3

2-pin power supply, 9 W
EU: PR3PREU6 // UK: PR3PRUK6
AU: PR3PRAU6 // US: PR3PRUS6

Power supply, 18 W
EU: PR3PXEU3 // UK: PR3PXUK3
AU: PR3PXAU3 // US: PR3PXUS3

Power supply, 24 W
EU: PR3P2EU3 // UK: PR3P2UK3
AU: PR3P2AU3 // US: PR3P2US3

Power supply, 50 V, 1.3 A
EU: PR3PWEU3 // UK: PR3PWUK3
AU: PR3PWAU3 // US: PR3PWUS3

Universal power supply, 9 W
Order code: PR3PUPS3

4-pin to barrel socket adapter
Order code: PR2PD01B

Automotive power supply, 4 pin
Order code: PR2AM20M

Power cabel whit 4-way screw terminal
Order code: PR2FK20M

DIN Rail power supply
Order code: PR3PDNP0

ACCESSORIES / ANTENNA OPTIONS

COMBO MIMO mobile/GNSS/ WiFi ROOF SMA antenna
Order code: PR1KCO28

COMBO SISO mobile/GNSS/ WiFi ROOF SMA antenna
Order code: PR1KCS28

COMBO MIMO mobile ROOF SMA antenna
Order code: PR1KCL25

Mobile magnetic SMA antenna
Order code: PR1KS210

Mobile SMA antenna
Order code: PR1US440

WiFi magnetic SMA antenna
Order code: PR1KRF30

WiFi SMA antenna
Order code: PR1URF51

Bluetooth magnetic SMA antenna
Order code: PR1KRT25

GNSS Adhesive SMA antenna
Order code: PR1KSG30

GNSS Adhesive fakra antenna
Order code: PR1KFG30

Mobile adhesive fakra antenna
Order code: PR1LF435

Mobile adhesive sma antenna
Order code: PR1AS420

WiFi dual-band SMA antenna
Order code: PR14RD35

WiFi dual-band magnetic antenna
Order code: PR1KRD30

Angled Compact Mobile antenna
Order code: PR1US450

Straight Compact Mobile antenna
Order code: PR1CS450

ACCESSORIES / MOUNTING OPTIONS

Compact DIN Rail Kit
Order code: PRMEC11

DIN Rail Kit
Order code: PR5MEC00

Surface mounting kit
Order code: PR5MEC12

Surface clip holder kit
Order code: PR5MEC22

ACCESSORIES / BLUETOOTH SENSOR

BLE Beacon
Order code: 258-00093
Order code: 258-00094

BLE Temperature sensor
Order code: 258-00095
Order code: 258-00096

BLE Movement sensor
Order code: 258-00097
Order code: 258-00098

BLE Magnetic sensor
Order code: 258-00099
Order code: 258-00100

BLE Temperature sensor (EN 12830)
Order code: 258-00102

BLE Temperature and humidity sensor
Order code: 258-00101

Blue SLIM ID
Order code: PRIEDASN6O

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WE HELP YOU CONNECT

Crowd-support forum
https://community.teltonika.lt/

Wiki knowledge base
https://wiki.teltonika.lt/

Teltonika-networks
https://teltonika-networks.com/