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# PRODUCT CATALOG



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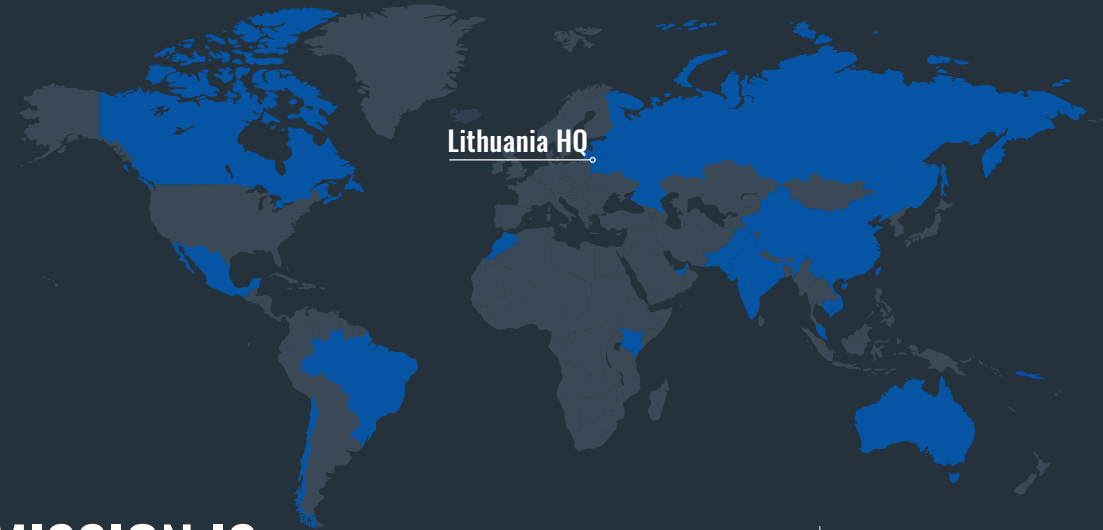
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# WHO WE ARE?

## 22 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.

27  
OFFICES  
IN 18  
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.

260+

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 22 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

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

## 22 DEVICES - UNLIMITED USE CASES



### INDUSTRIAL & AUTOMATION

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



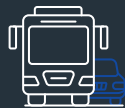
### ENERGY & UTILITIES

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

MULTI-  
CONFIGURATION  
& FOTA

LOCATION  
HISTORY  
& POSITIONING

CUSTOMIZABLE  
ALERTS AND  
NOTIFICATIONS

HISTORICAL  
DATA AND  
REPORTS

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 access

### 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 access

## 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





# 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



# 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)
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



# 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 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



# 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 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



# 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

## 9-30V

Wide range of power supply voltages

## DUAL SIM

With auto failover, backup WAN and other switching scenarios

## I/O

Multiple Inputs and Outputs for remote monitoring and control

## SERIAL

RS232/RS485 serial communication interfaces

## 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

# 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

## 9-30V

Wide range of supported power supply voltages

## DUAL SIM

With auto failover, backup WAN and other switching scenarios

## I/O

Multiple Inputs and Outputs for remote monitoring and control

## SERIAL

RS232/RS485 serial communication interfaces

## GNSS

Global Navigation Satellite System for location services with geofencing functionality



# REMOTE MONITORING OF OIL & GAS PIPELINES

## ENERGY & UTILITIES

Our lives depend on energy. While many countries are working towards a more sustainable future with development focused on renewable energy, oil and gas remain the most popular energy sources. It accounts for more than 60% of the global energy consumption, as per BP estimates.

### SOLUTION

While satellite communications are still expensive, global expansion of 4G LTE coverage enables Oil and Gas companies to implement a wide pipeline flow monitoring network by using dedicated flow meters, which output data using industrial protocols. In many cases – serial communication travels via RS-485 and uses Modbus industrial protocol. The data generated by the flow meter is forwarded to control centers and SCADA systems for aggregation and central interpretation. TRB145 Serial IoT Gateway by Teltonika Networks is perfect for such applications. RS-485 interface, Modbus RTU Master functionality, and 4G LTE Cat1 enables to periodically

read flow meter information and send gathered data to remote HTTP/HTTPS servers or various IoT platforms using MQTT. The wide power supply range and low energy consumption allow TRB145 to power up by combining solar power and batteries.

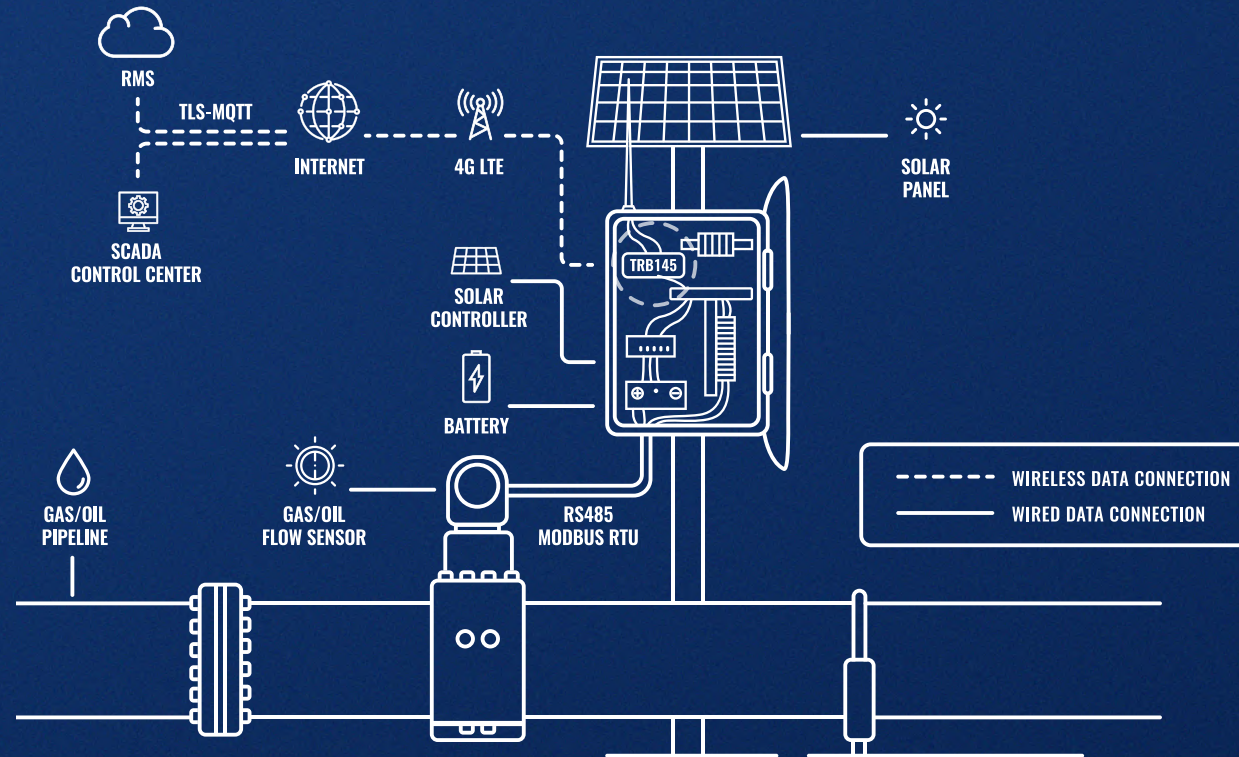
### BENEFITS

/Low-cost and quick to deploy – multiple TRBs can be simultaneously configured immediately using Teltonika Remote Management System (RMS).

/High availability and low data cost – 4G LTE is highly available globally and cost-efficient due to low amounts of data required for this application.

/Data security – TRB145 supports advanced data protection with embedded Firewall and encryption with multiple VPN services, such as OpenVPN, IPsec, PPTP, L2TP, and others.

/Immediate notifications – if preset flow values fall out of defined criteria, system operators can setup TRB145 to receive immediate alarms.



# SMART GRID & SUBSTATION COMMUNICATION

## ENERGY & UTILITIES

The energy market is one of the most crucial industry sectors enabling our everyday lives. It requires constant development and innovation. The Industrial Internet of Things is a movement towards more connectivity and control in every aspect of industry digitization, and the energy sector is no exception.

### SOLUTION

Integrators and energy operators worldwide have recognized that cellular solutions, such as 4G LTE enabled gateways and routers, offer the most reliable connectivity and best availability for their complex substation systems. In many cases, substation controllers aren't new, meaning that they use serial interfaces for communication, such as RS232. TRB142 is a 4G LTE Cat1 enabled cellular gateway by Teltonika Networks able to connect legacy equipment via serial RS232 and manage connectivity with numerous industrial and networking protocols, like Modbus RTU & MQTT. It also has advanced firmware security functions, including a firewall and multiple supported VPN services. Moreover, TRB142 can diagnose any connectivity and functionality issues and reboot separate modules of the gateway to restore service automatically

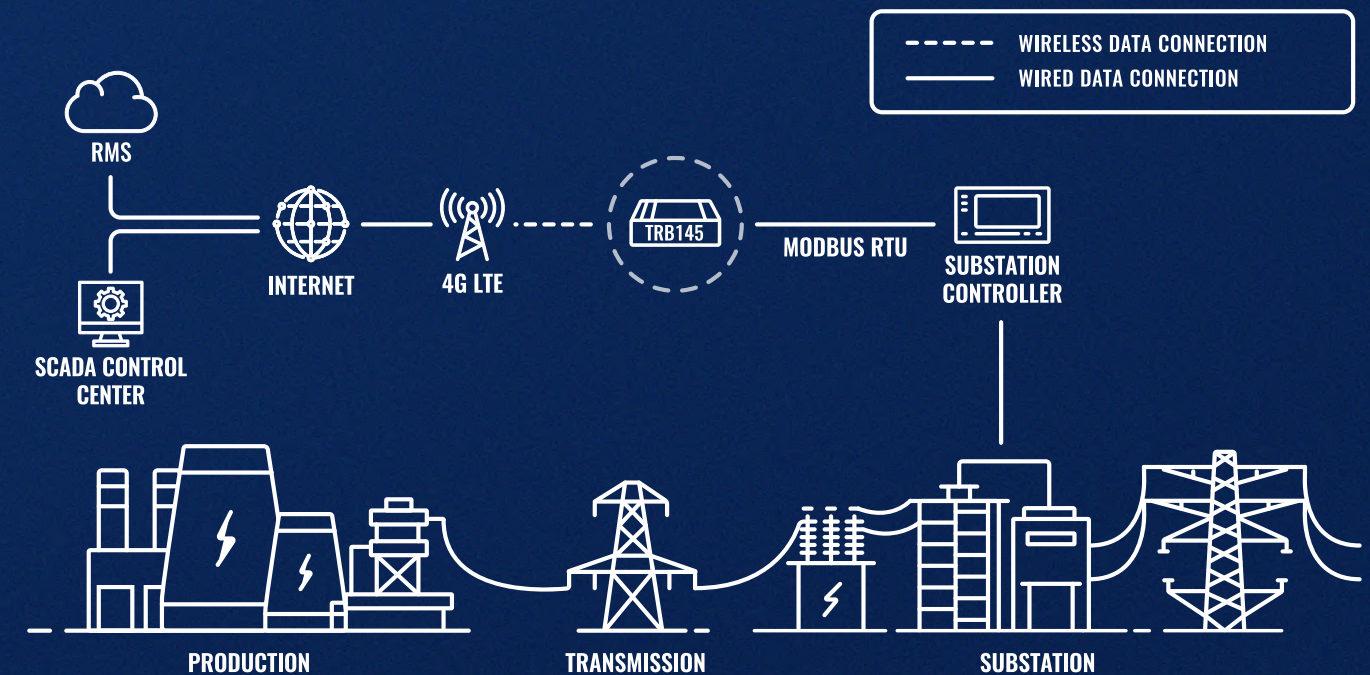
without any interference from the operators. Finally, all TRB142 devices can be easily monitored and controlled from thousands of miles away with Teltonika Remote Management System. It allows generating customizable alerts, reports and enables direct access to the substation controllers connected with TRB142, even without a Public IP.

### BENEFITS

/TRB142 is easy to set up, easy to install, and even easier to maintain with full support for Teltonika Remote Management System. It is also simple to scale as multiple devices configure all at once using RMS.

/This gateway is very reasonably priced and features robust 4G LTE Cat1 – designed for serial interface communication where low data speeds are needed.

/Advanced firmware functionality includes support for industrial, networking, and remote management protocols, such as Modbus RTU, MQTT, DHCP, SNMP, and features firewall and multiple supported VPN services.





# 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

### COMPACT

Small size – easy integration

### WAN FAILOVER

Automatic switch to available backup connection

### I/O

Digital Input/Output for remote monitoring and control

### WIFI

Wireless Access Point with Hotspot functionality

### 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





# 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





# 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



# 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





# 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

## DUAL SIM

With auto failover, backup WAN and other switching scenarios

## WAN FAILOVER

Automatic switch to available backup connection

## ETHERNET

4 x Ethernet interfaces with VLAN functionality

## WIFI

Wireless Access Point with Hotspot 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

### I/O

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

### DUAL SIM

For additional connection reliability

### SERIAL

RS232/RS485 serial communication interfaces

### GNSS

Global Navigation Satellite System for location services and time synchronization

### 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

### PROTOCOLS

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

### I/O & USB

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

### SECURITY

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

### 9-50 V

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

### 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





# 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



# 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

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 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 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



# 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

## PROTOCOLS

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

## I/O & USB

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

## SECURITY

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

## WIFI & BT

Wave-2 802.11ac Dual Band WIFI and Bluetooth LE

## RMS

Compatible with Teltonika Remote Management System





# 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

## GNSS

Global Navigation Satellite System for location services and time synchronization

## DUAL SIM

Instant failover switching

## LOAD BALANCING

Allows to use multiple WAN sources to increase throughput

## WIFI & BT

Wave-2 802.11ac Dual Band WIFI and Bluetooth LE

## 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





# 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



# 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



# INTELLIGENT TRAFFIC SYSTEM CONNECTIVITY

## INDUSTRY & AUTOMATION

According to the projections by the United Nations, the world population will reach 9.8 billion by 2050. Ongoing mass urbanization is forecasted to result in 50% of the world's population living in cities. Apart from numerous city planning, social and economic challenges, these two factors will contribute towards increased congestion-related problems. Recent surveys suggest that the average American spends around 19 days per year stuck in traffic. However, without advanced, centrally controlled intelligent traffic systems, this number would be far higher.

### SOLUTION

Globally, intelligent traffic systems are in different development stages. Integrators and governments worldwide have already recognized that a single Internet connectivity source is insufficient due to high maintenance costs and imperfect availability. RUTX09 cellular router with LTE Cat 6 and Dual SIM functionality is perfect for providing backup cellular connectivity for intelligent traffic infrastructure because it is secure, reliable, and easy to use. Besides, it has carrier aggregation functionality, ensuring efficient use of mobile GSM resources. Operators are motivated to offer more attractive

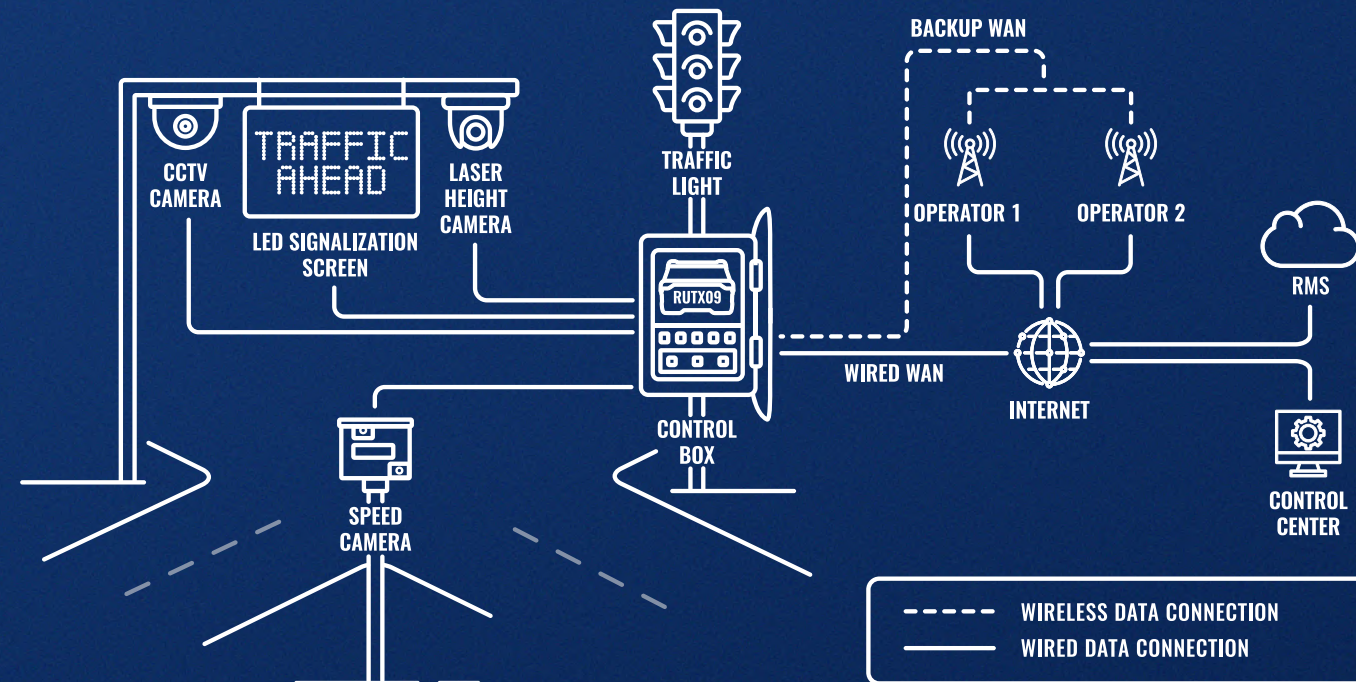
data service plans for large scale projects compatible with carrier aggregation technology. The dual SIM functionality ensures that even if one operator service gets interrupted, the RUTX09 will switch to a redundant operator to provide uninterrupted connectivity.

### BENEFITS

/Scalability – backup connectivity projects for Intelligent traffic systems require a large number of routers. RUTX09 is compatible with Teltonika RMS, allowing integrators to configure an infinite number of devices remotely and instantly.

/Cost-efficiency – it is less expensive to install a cellular router for the Internet connectivity redundancy rather than rely on a single source of connection and carry out reactive maintenance upon losing the service.

/Ease of use – with RUTX09 and RMS, system operators can be in control of their network infrastructure from a single control location even without a public IP! It is possible to monitor and control equipment that is thousands of miles away without any local presence.



# FAST AND UNINTERRUPTED RETAIL CONNECTIVITY

## RETAIL

Nowadays, most retail businesses are offering multiple means of customer services oriented to engagement and satisfaction. Connected services include offering public WIFI with captive portals for client engagement, digital signage screens, people counting solutions, and automated inventory management for stock control to have more operational control and transparency. Naturally, digital payment options and card payments remain a must-have option in a physical retail environment.

### SOLUTION

4G LTE is becoming a more and more favorable option for fast and reliable Internet connectivity. With multiple cellular modules, higher LTE categories, mobile Internet services can match and surpass the speeds of wired connections in congested areas. However, cellular solutions can be deployed instantly without the need for cabling and arranging long-term contracts. Retail connectivity security, downtime, and availability challenges are all resolved by choosing a professional cellular router with two 4G LTE CAT6 modules working simultaneously. In the proposed solution with our RUTX12, the two SIM cards working together can provide speeds up to 600 Mbps and ensure that all retail solution components are connected. Two modules can increase solution security by splitting traffic between two LTE modules, e.g., corporate traffic and customer services. As shown in the topology, the POS system, computer, and thermal

camera connect to the router via Ethernet. Barcode scanners and tablets use the WiFi for a secure, private network. RUTX12 supports IPsec, OpenVPN, and other VPNs, allowing the companies to configure their networks to meet their needs and requirements. Finally, the RUTX12 is compatible with the RMS, enabling system operators to monitor and manage the whole network remotely, including remote configuration, firmware updates, notifications, reports, and much more.

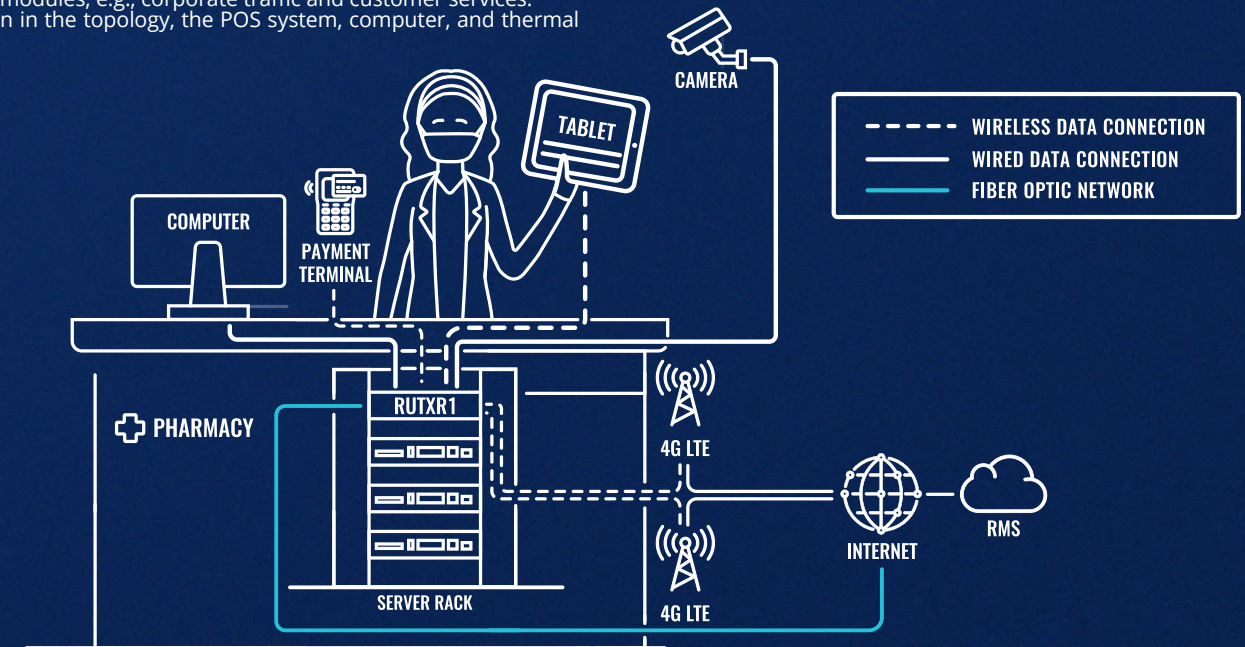
### BENEFITS

/Performance – RUTX12 with two LTE CAT 6 cellular simultaneously working modules can provide speeds up to 600 Mbps.

/Functionality – RUTX12 can split traffic between two mobile connections with load balancing.

/Remote monitoring – with RMS, you can conveniently monitor all network and make configurations remotely.

/Security – with advanced RutOS features, RUTX12 offers multiple VPN options, embedded firewall, and other security features to comply with high-security standards.





# 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

## POWER BUDGET

Total power budget at PSE up to 120 W

## DURABLE

Rugged aluminium housing

## ETHERNET

5 x Gigabit Ethernet with speeds up to 1000 Mbps

## MOUNTING

DIN rail and surface mounting options

## 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 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 enable smart solutions such as parking and retail business intelligence.

### SOLUTION

RUTX11 cellular router is responsible for stable and robust Internet connectivity delivered through 4G LTE. All CCTV cameras connect via PoE (Power over Ethernet) compatible switch - TSW100. This device has five Gigabit Ethernet ports, four of which support IEEE 802.3af and IEEE802.3 at PoE standards. They allow to power up devices up to 30W power per port. RUTX11 and TSW100 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 start operating within a few hours. And last but not least, the RUTX11 is compatible with the

Remote Management System (RMS). RMS enables 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 pre-configured before installation on-site.
- /Easy to install – PoE technology allows using Ethernet for both: powering up and data transmission.
- /Industrial Mounting Options – both devices have a DIN rail.
- /Easy to manage – with Remote Management System, system administrators can control the remote infrastructure with a convenient, user-friendly interface.
- /Secure – advanced features of the RUTX11, such as VPN, IPsec, Firewall, and Access Control, ensure the highest security standard.



# POE TECHNOLOGY SIMPLIFYING OFFICE NETWORK INTEGRATIONS

## ENTERPRISE

Smartphones have certainly changed the way we interact with technology and each other. However, the office environment with all technological innovations has mostly stayed unchanged. Of course, analog phones got replaced with their modern digital versions. Standard networks have gone wireless using numerous access points across the office. Security cameras with connected access control devices are helping building managers to ensure the security of the employees. Naturally, changing the way we interact with technology poses new challenges for office network integrators.

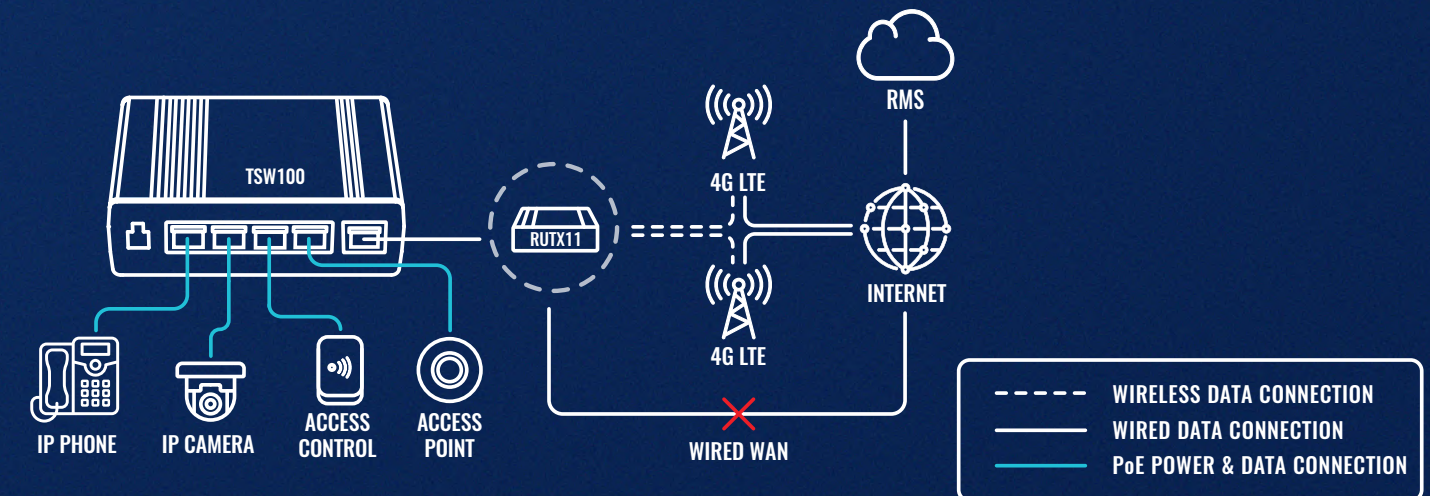
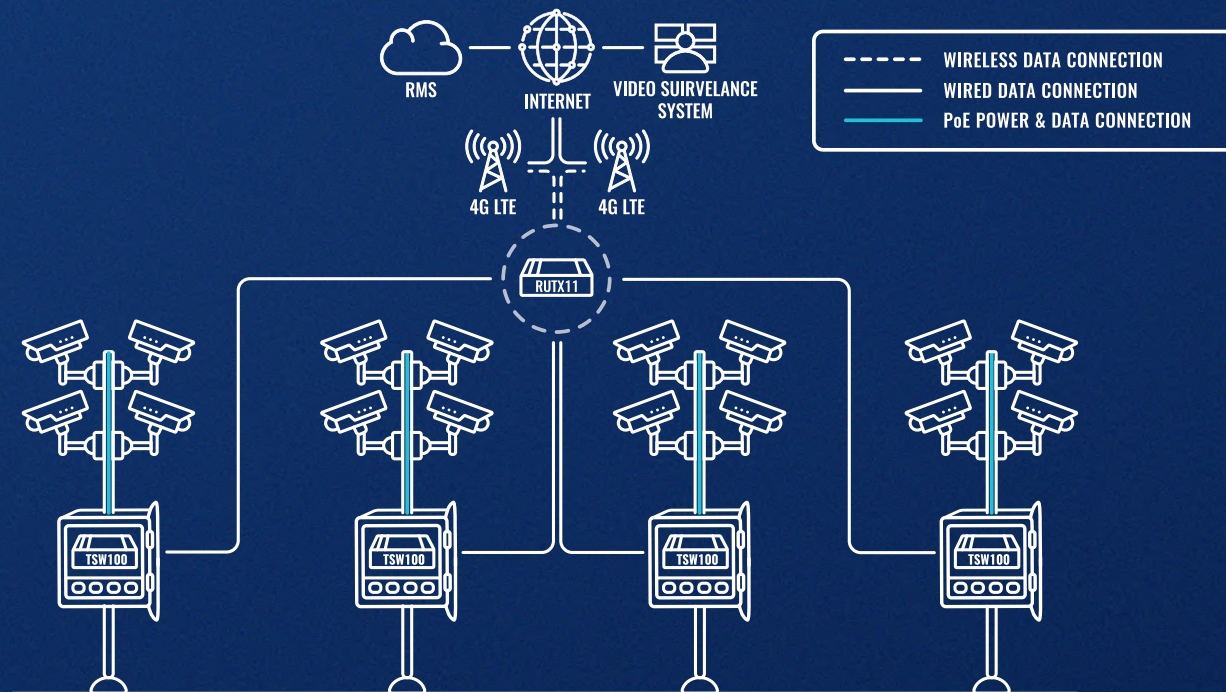
### SOLUTION

IP devices, such as IP Cameras, IP Phones, wireless access points, and access control solutions, can be powered by PoE and connected via the PoE switch – TSW100. The PoE technology makes the installation process faster because it does not require the services of electrical installers. Networking engineers can connect and deliver both power and data with one Ethernet cable for PoE compliant devices. In this specific example, the TSW100 PoE switch connects to our cellular router RUTX11. This secure, high-performance cellular router is responsible for Internet connectivity from wired or mobile sources. 4G LTE CAT6 mobile technology can deliver up to 300 Mbps over cellular networks. Naturally, if the primary connection is lost or

unstable, RUTX11 can switch to another mobile provider due to its dual SIM and Auto Failover features. Besides, RUTX11 can deliver powerful wireless service with Dual-Band AC Wi-Fi functionality with secure and flexible usage settings and statistics for the users and system operators. Together, our cellular router RUTX11 and newly released PoE switch TSW100 is an excellent solution for office device connectivity deployment.

### BENEFITS

- /Fast and easy to deploy – switch eliminates the usage of electrical power units.
- /Easy to use – TSW100 switch is a plug-and-play device, while RUTX11 has many functionalities that allow fast and easy setup.
- /Secure – data will be safe due to advanced security features of the RUTX11, such as VPN, IPsec, Firewall, and Access Control.
- /Reliable connectivity – Dual SIM functionality for primary and backup connection.
- /Convenience – dual-Band AC Wi-Fi functionality allows providing secure connectivity to employees and visitors of the office.





# FEATURE COMPARISON

	MODEMS		GATEWAYS						SWITCHES	
	TMR240	TMR250	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

[illegible]



# ACCESSORIES / POWERING OPTIONS



**Power supply, 4.5 W**  
EU: 035R-00163 // UK: 035R-00161  
AU: 035R-00160 // US: 035R-00162



**Power supply, 9 W**  
EU: 035R-00143 // UK: 035R-00148  
AU: 035R-00152 // US: 035R-00184



**2-pin power supply, 9 W**  
EU: 035R-00188 // UK: 035R-00189  
AU: 035R-00190 // US: 035R-00191



**Power supply, 18 W**  
EU: 035R-00150 // UK: 035R-00151  
AU: 035R-00153 // US: 035R-00154



**Power supply, 24 W**  
EU: 035R-00165 // UK: 035R-00167  
AU: 035R-00168 // US: 035R-00166



**Power supply, 50 V, 1.3 A**  
EU: 035R-00171 // UK: 035R-00174  
AU: 035R-00176 // US: 035R-00175



**Universal power supply, 9 W**  
Order code: PR3PUPS3



**4-pin to barrel socket adapter**  
Order code: PR2PD01B



**Automotive power supply, 4 pin**  
Order code: 058R-00249



**4 pin power cable with 4-way screw terminal**  
Order code: 058R-00229



**DIN Rail power supply**  
Order code: 000-00770

# ACCESSORIES / ANTENNA OPTIONS



**COMBO MIMO mobile/GNSS/WiFi ROOF SMA antenna**  
Order code: 003R-00253



**COMBO SISO mobile/GNSS/WiFi ROOF SMA antenna**  
Order code: 003R-00254



**COMBO MIMO mobile ROOF SMA antenna**  
Order code: 003R-00252



**Mobile magnetic SMA antenna**  
Order code: 003R-00284



**Mobile SMA antenna**  
Order code: 003R-00225



**WiFi magnetic SMA antenna**  
Order code: 003R-00287



**WiFi SMA antenna**  
Order code: 003R-00224



**Bluetooth magnetic SMA antenna**  
Order code: 003R-00286



**GNSS Adhesive SMA antenna**  
Order code: 003R-00250



**GNSS Adhesive fakra antenna**  
Order code: 003R-00235



**Mobile adhesive fakra antenna**  
Order code: 003R-00177



**Mobile adhesive sma antenna**  
Order code: 003R-00263



**WiFi dual-band SMA antenna**  
Order code: 003R-00288



**WiFi dual-band magnetic antenna**  
Order code: 003R-00247



**Angled Compact Mobile antenna**  
Order code: 003R-00296



**Straight Compact Mobile antenna**  
Order code: 003R-00281



# ACCESSORIES / MOUNTING OPTIONS



**Compact DIN Rail Kit**  
Order code: 088-00270



**DIN Rail Kit**  
Order code: 088-00267



**Surface mounting kit**  
Order code: 088-00281



**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: PRIEDASN60





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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/>