# RUT276

COMPACT REDCAP 5G ROUTER




Industrial & automation

Energy & utilities

Smart city

## REDCAP 5G

Low latency, high capacity, competitive pricing

## SERIAL INTEGRATION

Built-in RS232/RS485 to seamlessly connect with industrial equipment

## PROTOCOL-READY

Native support of Modbus, OPC UA & BACnet for industrial systems

## INDUSTRIAL DESIGN

Rugged aluminum build, wide temperature support, and flexible mounting

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

| Mobile | |
|---|---|
| Mobile module | 5G Sub-6Ghz SA 223 Mbps DL, 123 Mbps UL; 4G LTE Cat 4 – LTE 195 Mbps DL, 105 Mbps UL |
| 3GPP Release | Release 17 |
| Status | IMSI, ICCID, operator, operator state, data connection state, network type, bandwidth, connected band, signal strength (RSSI), SINR, RSRP, RSRQ, EC/IO, RSCP, mobile signal graphs, data sent/received, LAC, TAC, cell ID, ARFCN, UARFCN, EARFCN, MCC, and MNC |
| SMS | SMS status, SMS configuration, EMAIL to SMS, SMS to EMAIL, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply, SMPP |
| USSD | Supports sending and reading Unstructured Supplementary Service Data messages |
| Block/Allow list | Operator block/allow list (by country or separate operators) |
| Band management | Band lock, Used band status display |
| SIM idle protection service | Provides the possibility to configure the router to periodically switch to the unused SIM card and establish a data connection in order to prevent the SIM card from being blocked |
| SIM PIN code management | SIM PIN code management enables setting, changing, or disabling the SIM card's PIN |
| APN | Auto APN |
| Bridge | Direct connection (bridge) between mobile ISP and device on LAN |
| Passthrough | Router assigns its mobile WAN IP address to another device on LAN |
| Framed routing | Framed routing: support an IP network behind 5G UE |

| Site Manager | |
|---|---|
| Supported modes | Manager |
| Functionalities | Centralized management of TAP access points and Teltonika's managed switches — including device pairing and grouping, FOTA updates, device status monitoring, automatic reboot scheduling with ping/wget health checks, wireless SSID configuration, and VLAN assignment across the site. |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

| Wireless | |
|---|---|
| Wireless mode | IEEE 802.11b/g/n (Wi-Fi 4) Access Point (AP), Client (STA), Mesh (802.11s), Multi-AP |
| Wi-Fi security | WPA2-Enterprise - PEAP, WPA2-PSK, WPA-EAP, WPA-PSK, WPA3-SAE, WPA3-EAP, OWE; AES-CCMP, TKIP, Auto-cipher modes, client separation, EAP-TLS with PKCS#12 certificates, disable auto-reconnect, 802.11w Protected Management Frames (PMF) |
| SSID/ESSID | SSID stealth mode and access control based on MAC address |
| Wi-Fi users | Up to 50 simultaneous connections |
| Wireless Connectivity Features | Fast roaming (802.11r), Radio Resource Measurement (802.11k), BSS Transition Management (802.11v), Client isolation, Hide SSID, WMM |
| Wireless MAC filter | Allowlist, blocklist |
| Wireless QR code generator | Once scanned, a user will automatically enter your network without needing to input login information |
| TravelMate | Forward Wi-Fi hotspot landing page to a subsequent connected device |

| Ethernet | |
|---|---|
| WAN | 1 x WAN port 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u, 802.3az standards, supports auto MDI/MDIX crossover |
| LAN | 1 x LAN port, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u, 802.3az standards, supports auto MDI/MDIX crossover |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

| Network | |
|---|---|
| Routing | Static routing, Dynamic routing (BGP, OSPF v2, RIP v1/v2, EIGRP, NHRP), Policy based routing |
| Network protocols | TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, SFTP, FTP, SMTP(S), SSL/TLS, ARP, VRRP, PPP, PPPoE, UPNP, SSH, DHCP, Telnet, SMPP, SNMP, MQTT, Wake On Lan (WOL), VXLAN |
| Connection monitoring | Ping Reboot, Wget Reboot, Periodic Reboot, LCP and ICMP for link inspection |
| Firewall | Port forward, traffic rules, custom rules, TTL target customisation |
| Firewall status page | View all your Firewall statistics, rules, and rule counters |
| Port management | View device ports, enable and disable each of them, turn auto-configuration on or off, change their transmission speed, and so on |
| Network topology | Visual representation of your network, showing which devices are connected to which other devices |
| DHCP | Static and dynamic IP allocation, DHCP relay, DHCP server configuration, status, static leases: MAC with wildcards |
| QoS / Smart Queue Management (SQM) | Traffic priority queuing by source/destination, service, protocol or port, WMM, 802.11e |
| DNS over HTTPS | DNS over HTTPS proxy enables secure DNS resolution by routing DNS queries over HTTPS |
| DDNS | Supported >77 service providers, others can be configured manually |
| Network backup | Wi-Fi WAN, Mobile, VRRP, Wired options, each of which can be used as an automatic Failover |
| Load balancing | Balance Internet traffic over multiple WAN connections |
| Hotspot | Captive portal (hotspot), internal/external Radius server, Radius MAC authentication, SMS authorisation, SSO authentication, internal/external landing page, walled garden, user scripts, URL parameters, user groups, individual user or group limitations, user management, 9 default customisable themes and optionality to upload and download customised hotspot themes |
| Hotspot 2.0 | Hotspot 2.0 is a Wi-Fi standard that enables seamless, secure, and automatic connection to trusted wireless networks |
| SSHFS | Possibility to mount remote file system via SSH protocol |
| VRF support | Initial virtual routing and forwarding (VRF) support |
| Traffic Management | Real-time monitoring, wireless signal charts, traffic usage history |
| IGMP Proxy | Possibility to relay multicast membership messages between hosts and a router, enabling multicast traffic to flow across different network segments |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

| Security | |
|---|---|
| Authentication | Pre-shared key, digital certificates, X.509 certificates, TACACS+, Internal & External RADIUS users authentication, IP & login attempts block, time-based login blocking, built-in random password generator |
| Firewall | Preconfigured firewall rules can be enabled via WebUI, unlimited firewall configuration via CLI, DMZ, NAT, NAT-T, NAT64 |
| Attack prevention | 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) |
| VLAN | Port and tag-based VLAN separation |
| Mobile quota control | Custom data limits for SIM card |
| WEB filter | Block list for blocking out unwanted websites, allow list for specifying allowed sites only |
| Access control | Flexible access control of SSH, Web interface, CLI and Telnet |
| Certificate Manager | Certificate creation tool allows to create CA, server, client, let's encrypt, SCEP certificates |
| 802.1x | Port-based network access control client and server support |
| **VPN** | |
| OpenVPN | Multiple clients and a server can run simultaneously, 27 encryption methods |
| OpenVPN Encryption | DES-CBC 64, RC2-CBC 128, DES-EDE-CBC 128, DES-EDE3-CBC 192, DESX-CBC 192, BF-CBC 128, RC2-40-CBC 40, CAST5-CBC 128, RC2-64-CBC 64, AES-128-CBC 128, AES-128-CFB 128, AES-128-CFB1 128, AES-128-CFB8 128, AES-128-OFB 128, AES-128-GCM 128, AES-192-CFB 192, AES-192-CFB1 192, AES-192-CFB8 192, AES-192-OFB 192, AES-192-CBC 192, AES-192-GCM 192, AES-256-GCM 256, AES-256-CFB 256, AES-256-CFB1 256, AES-256-CFB8 256, AES-256-OFB 256, AES-256-CBC 256 |
| IPsec | XFRM, IKEv1, IKEv2, with 14 encryption methods for IPsec (3DES, DES, AES128, AES192, AES256, AES128GCM8, AES192GCM8, AES256GCM8, AES128GCM12, AES192GCM12, AES256GCM12, AES128GCM16, AES192GCM16, AES256GCM16) |
| GRE | GRE tunnel, GRE tunnel over IPsec support |
| PPTP, L2TP | Client/Server instances can run simultaneously, L2TPv3, L2TP over IPsec support, IPv6 support |
| Stunnel | Proxy designed to add TLS encryption functionality to existing clients and servers without any changes in the program’s code |
| DMVPN | Method of building scalable IPsec VPNs, Phase 2 and Phase 3 and Dual Hub support |
| SSTP | SSTP client instance support |
| ZeroTier | ZeroTier VPN client support |
| WireGuard | WireGuard VPN client and server support |
| Tinc | Tinc offers encryption, authentication and compression in it's tunnels. Client and server support. |
| EoIP | Ethernet over IP (EoIP) tunnelling is a protocol based on GRE RFC 1701 that creates an Ethernet tunnel between two routers on top of an IP connection |
| OpenConnect | Cross-platform multi-protocol SSL VPN client which supports a number of VPN protocols |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

| BacNET | |
|---|---|
| Supported modes | Router |
| Supported connection types | IP, RTU(RS232, RS485) |
| Configuration options | Support for multiple BACnet/IP interfaces, Network number assignment, Preconfigured BDT entries for BBMD (BACnet Broadcast Management Device) |

| OPC UA | |
|---|---|
| Supported modes | Client, Server |
| Supported connection types | TCP |

| MODBUS | |
|---|---|
| Supported modes | Server, Client |
| Supported connection types | RTU (RS232, RS485), TCP |
| Custom registers | MODBUS TCP custom register block requests, which read/write to a file inside the router, and can be used to extend MODBUS TCP Client functionality |
| Supported data formats | 8-bit: INT, UINT; 16-bit: INT, UINT (MSB or LSB first); 32-bit: float, INT, UINT (ABCD (big-endian), DCBA (little-endian), CDAB, BADC), HEX, ASCII |

| Data to Server | |
|---|---|
| Protocol | HTTP(S), MQTT, Azure MQTT |
| Data to server | Extract parameters from multiple sources and different protocols, and send them all to a single server; Custom LUA scripting, allowing scripts to utilize the router's Data to server feature |

| Modbus MQTT GATEWAY | |
|---|---|
| Modbus MQTT Gateway | Allows sending commands and receiving data from MODBUS Server through MQTT broker |

| DNP3 | |
|---|---|
| Supported modes | Station, Outstation |
| Supported connection types | RTU(RS232), RTU(RS485), TCP |

| DLMS/COSEM | |
|---|---|
| DLMS Support | DLMS - standard protocol for utility meter data exchange |
| Supported modes | Client |
| Supported connection types | RTU(RS232), RTU(RS485), TCP |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

| API | |
|---|---|
| Teltonika Networks Web API (beta) support | Expand your device's possibilities by using a set of configurable API endpoints to retrieve or change data. For more information, please refer to this documentation: https://developers.teltonika-networks.com |

| Monitoring & Management | |
|---|---|
| WEB UI | HTTP/HTTPS, status, configuration, FW update, CLI, troubleshoot, multiple event log servers, firmware update availability notifications, event log, system log, kernel log, Internet status |
| FOTA | Firmware update from server, automatic notification |
| SSH | SSH (v1, v2) |
| SMS | SMS status, SMS configuration |
| Call | Reboot, Status, Mobile data on/off, Output on/off, answer/hang-up with a timer, Wi-Fi on/off |
| Email | Receive email message status alerts of various services |
| TR-069 | OpenACS, EasyCwmp, ACSLite, tGem, LibreACS, GenieACS, FreeACS, LibCWMP, Friendly tech, AVSystem |
| MQTT | MQTT Broker, MQTT publisher |
| SNMP | SNMP (v1, v2, v3), SNMP Trap, Brute force protection |
| JSON-RPC | Management API over HTTP/HTTPS |
| RMS | Teltonika Remote Management System (RMS) |

| IoT Platforms | |
|---|---|
| ThingWorx | Allows monitoring of: WAN Type, WAN IP, Mobile Operator Name, Mobile Signal Strength, Mobile Network Type |
| Cumulocity - Cloud of Things | Allows monitoring of: Device Model, Revision and Serial Number, WAN Type and IP, Mobile Cell ID, ICCID, IMEI, Connection Type, Operator, Signal Strength. Has reboot and firmware upgrade actions. |
| Azure IoT Hub | Can be configured with Data to Server to send all the available parameters to the cloud. Has Direct method support which allows to execute RutOS API calls on the IoT Hub. Also has Plug and Play integration with Device Provisioning Service that allows zero-touch device provisioning to IoT Hubs |
| AWS IoT Core | Utility to interact with the AWS cloud platform. Jobs Support: Call the device's API using AWS Jobs functionality |

| System Characteristics | |
|---|---|
| CPU | Mediatek, 580 MHz, MIPS 24KEc |
| RAM | 128 MB, DDR2 |
| FLASH storage | 32 MB, SPI Flash |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

| Firmware/Configuration | |
|---|---|
| WEB UI | Update FW from file, check FW on server, configuration profiles, configuration backup |
| FOTA | Update FW |
| RMS | Update FW/configuration for multiple devices at once |
| Keep settings | Update FW without losing current configuration |
| Factory settings reset | A full factory reset restores all system settings, including the IP address, PIN, and user data to the default manufacturer's configuration |

| FIRMWARE CUSTOMISATION | |
|---|---|
| Operating system | RutOS (OpenWrt based Linux OS) |
| Supported languages | Busybox shell, Lua, C, C++ |
| Development tools | SDK package with build environment provided |
| GPL customization | You can create your own custom, branded firmware and web page application by changing colours, logos, and other elements in our firmware to fit your or your clients' needs |
| Package Manager | The Package Manager is a service used to install additional software on the device |

| Serial | |
|---|---|
| RS232 | RS232 interface without flow control signals |
| RS485 | Half duplex (2-wire) RS485 interface |
| Serial functions | Console, Serial over IP, Modem, MODBUS gateway, NTRIP Client |

| SD CARD | |
|---|---|
| Physical size | Micro SD |
| Applications | Samba share |
| Capacity | Up to 2 TB |
| Storage formats | FAT32, NTFS, ext2, ext3, ext4 |

| POE IN | |
|---|---|
| PoE IN ports | 1 x PoE In |
| PoE standards | Active PoE input 802.3af Class 0 (12.94 W) on LAN port |

| Power | |
|---|---|
| Connector | 2-pin industrial DC power socket |
| Input voltage range | 9 - 57 VDC, reverse polarity protection, surge protection >58V @10us min |
| PoE (passive) | Passive PoE over spare pairs 4,5 (+) / 7,8 (-). Possibility to power up through LAN port. Passive PoE voltage: 16 - 57 VDC. |
| Power consumption | Idle: < 2 W, Max: < 3.5 W |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

| Physical Interfaces | |
|---|---|
| Ethernet | 2 x RJ45 ports, 10/100 Mbps |
| Status LEDs | 2 x Connection type status LEDs, 3 x Connection strength LEDs, 2 x LAN status LEDs, 1 x Power LED |
| SIM | 2 x SIM slots (Mini SIM – 2FF), 1.8 V/3 V, double stacked SIM tray |
| Power | 1 x 2-pin power connector |
| Antennas | 2 x SMA for Mobile, 1 x RP-SMA for Wi-Fi |
| RS232, RS485 | 1 x 6-pin terminal block |
| Reset | Reboot/User default reset/Factory reset button |

| Physical Specification | |
|---|---|
| Casing material | Anodised aluminium housing and panels |
| Dimensions (W x H x D) | 83 x 25 x 83 mm |
| Weight | 132 g |
| Mounting options | DIN rail, wall mount, flat surface (all require additional kit) |

| Operating Environment | |
|---|---|
| Operating temperature | -40 °C to 75 °C |
| Operating humidity | 10% to 90% non-condensing |
| Ingress Protection Rating | IP30 |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

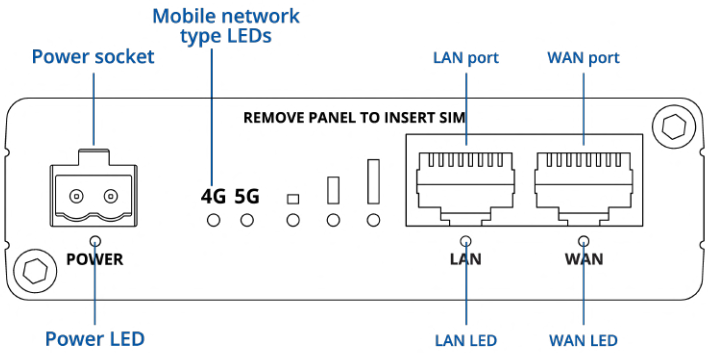
## Certification

| | |
|---|---|
| EMEA | RUT276 CE<br>RUT276 UKCA<br>RUT276 RoHS<br>RUT276 REACH |
| APAC | RUT276 RCM |
| AMERICAS | RUT276 FCC<br>RUT276 IC(ISED) |
| MISCELLANEOUS | RUT276 CB Scheme |
| SAFETY & ENVIROINMENTAL | RUT276 WEEE |

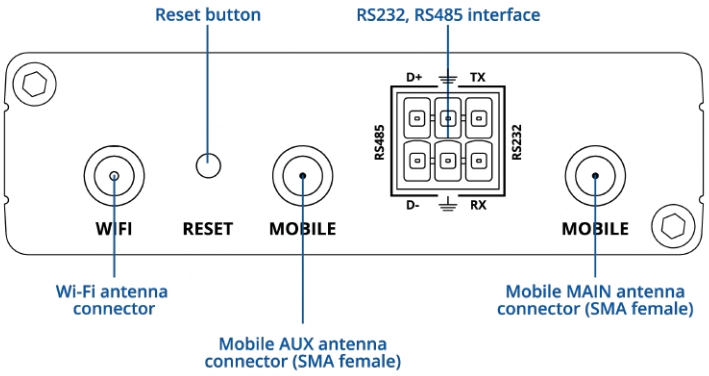
Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

# Hardware

### FRONT VIEW

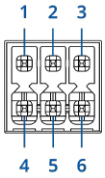



### BACK VIEW

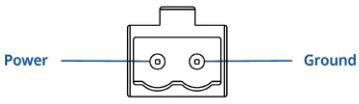



### RS485 CONNECTOR PINOUT

1. RS485 half-duplex positive signal **(D+)**
2. Device ground **(GND)**
3. RS232 driver signal **(TX)**
4. RS485 half-duplex negative signal **(D-)**
5. Device ground **(GND)**
6. RS232 receiver signal **(RX)**




### POWER CONNECTOR




Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

## Ordering

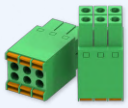
**Standard package***




RUT276




QUICK START GUIDE



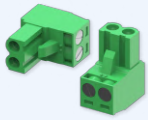
2X3PIN CONNECTOR



HEX KEY



SIM ADAPTER KIT



2-PIN TERMINAL BLOCK

*Standard package contents may differ based on standard order codes.

For more information on all available packaging options – please contact us directly.

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

## Classification codes

**HS Code:** 851762
**HTS:** 8517.62.00

For more information on all available packaging options – please contact us directly.

## Available versions

| Hardware version | Supported frequencies | Standard order code / Package Contains |
|---|---|---|
| RUT276 **0******* Global[1] | **5G NR SA**: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n30, n38, n40, n41, n48, n66, n70, n71, n77, n78, n79<br>**4G (LTE-FDD)**: B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B30, B66, B70, B71<br>**4G (LTE-TDD)**: B34, B38, B39, B40, B41, B42, B43, B48 | RUT276000000 / Standard Package without PSU<br>RUT276000020 / Mass packing code |

The price and lead-times for region (operator) specific versions may vary. For more information please contact us.

1 - Regional availability - excluding Russia, Belarus & Iran

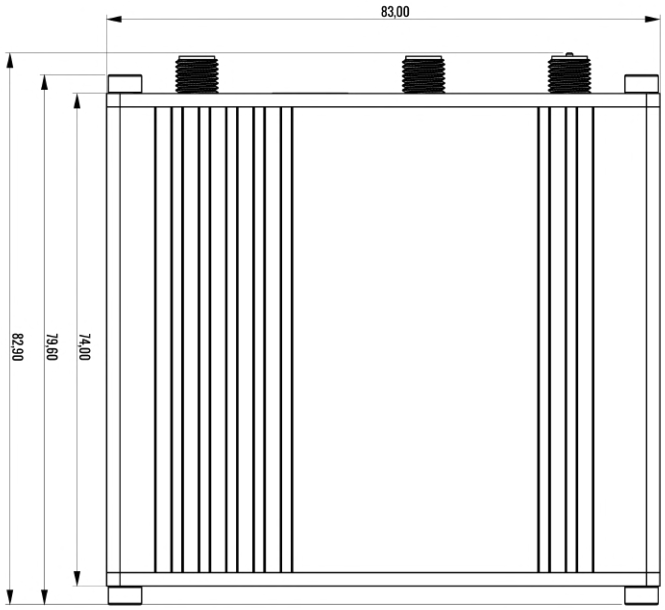
## RUT276 spatial measurements

| Available versions | |
|---|---|
| Device housing (W x H x D)* | 83 x 25 x 83 mm |
| Box (W x H x D): | 100 x 32 x 108 mm |
| | *Housing measurements are presented without antenna connectors and screws; for measurements of other device elements look to the sections below |

Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

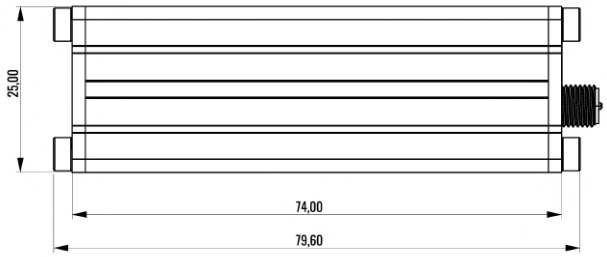
### TOP VIEW

The figure below depicts the measurements of device and its components as seen from the top:



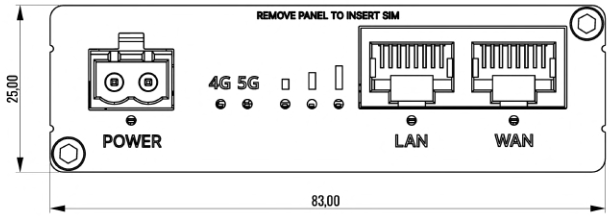

### RIGHT VIEW

The figure below depicts the measurements of device and its components as seen from the right side:




### FRONT VIEW

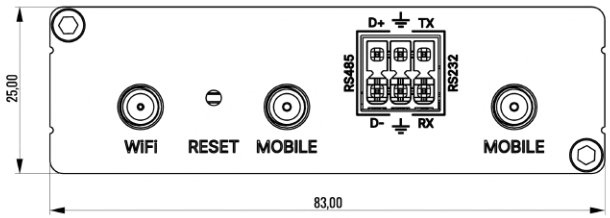
The figure below depicts the measurements of device and its components as seen from the front panel side:




Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.

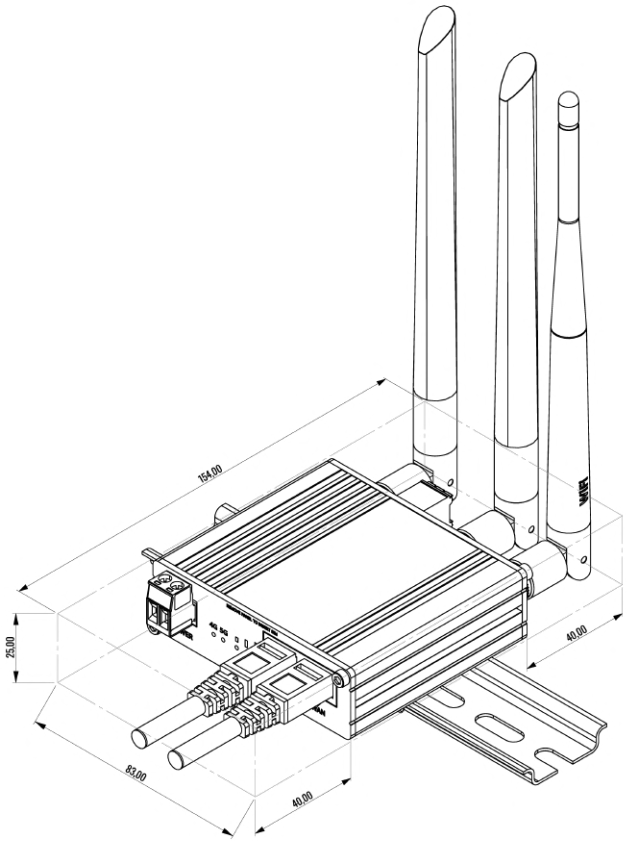
## REAR VIEW

The figure below depicts the measurements of device and its components as seen from the top:




## MOUNTING SPACE REQUIREMENTS

The figure below depicts an approximation of the device's dimensions when cables and antennas are attached:




Copyright © 2026, UAB TELTONIKA NETWORKS.
Specifications and information provided in this document are subject to change by UAB TELTONIKA NETWORKS without prior notice.