

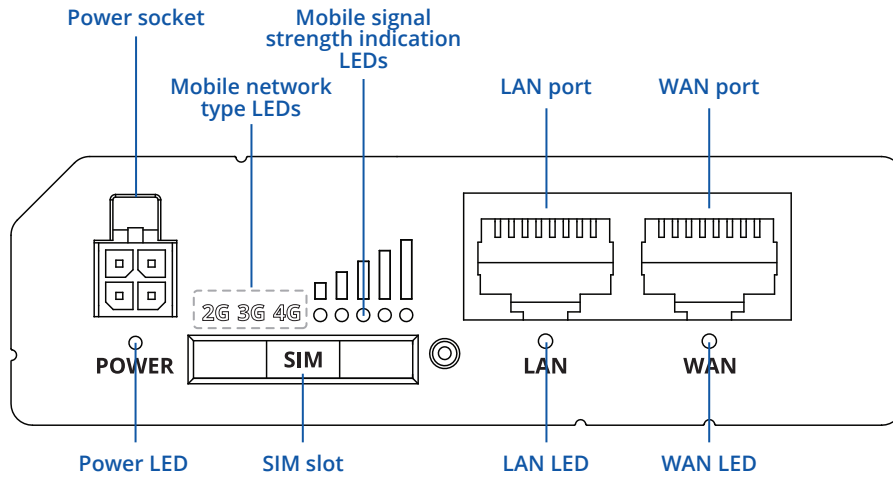


# RUT260

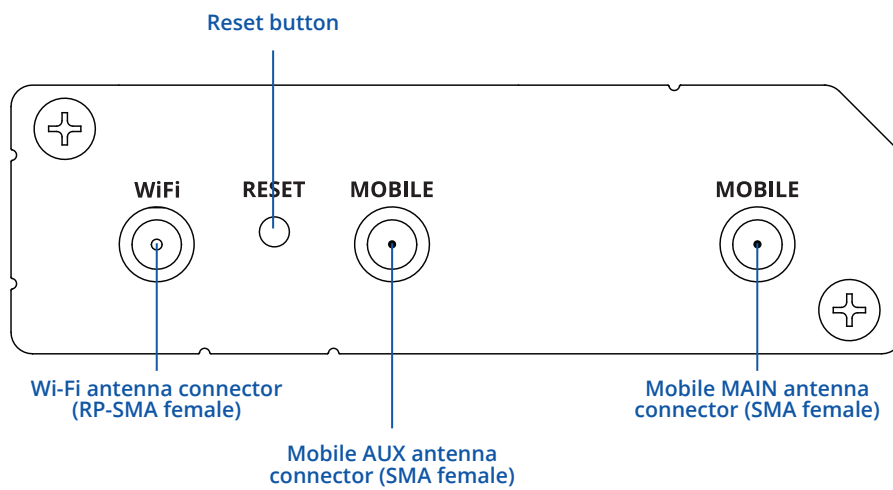


# HARDWARE

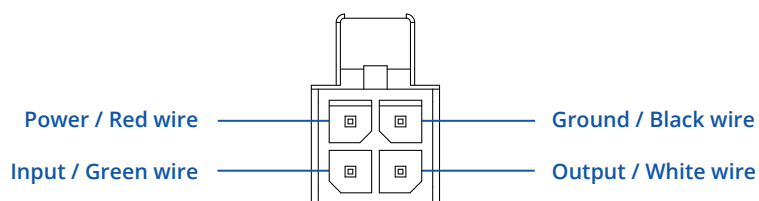
## FRONT VIEW



## BACK VIEW



## POWER SOCKET PINOUT



## FEATURES

### MOBILE

|                  |   |
|------------------|---|
| Mobile module    | 4G (LTE) – Cat 6 up to 300 Mbps, 3G – Up to 42 Mbps   |
| Status           | Signal strength (RSSI), SINR, RSRP, RSRQ, EC/IO, RSCP, Bytes sent/received, connected band, IMSI, ICCID   |
| SMS              | 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 |
| USSD             | Supports sending and reading Unstructured Supplementary Service Data messages   |
| Black/White list | Operator black/white list   |
| Multiple PDN     | Possibility to use different PDNs for multiple network access and services  |
| Band management  | Band lock, Used band status display   |
| 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   |

### WIRELESS

|                       |  |
|-----------------------|--|
| Wireless mode         | IEEE 802.11b/g/n, Access Point (AP), Station (STA)   |
| Wi-Fi security        | WPA3-EAP, WPA3-SAE, WPA2-Enterprise-PEAP, WPA2-PSK, WEP; AES-CCMP, TKIP, Auto Cipher modes, client separation  |
| SSID/ESSID            | ESSID stealth mode   |
| Wi-Fi users           | Up to 50 simultaneous connections  |
| Wireless Hotspot      | Captive portal (Hotspot), internal/external Radius server, SMS authorization, internal/external landing page, walled garden, user scripts, URL parameters, user groups, individual user or group limitations, user management, 9 default customizable themes |
| Wireless mesh/roaming | Fast roaming (802.11r)   |

### 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 |

### 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, SSL/TLS, ARP, VRRP, PPP, PPPoE, UPNP, SSH, DHCP, Telnet, SMPP, SMNP, MQTT, Wake On Lan (WOL) |
| VoIP passthrough support           | H.323 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets  |
| Connection monitoring              | Ping Reboot, Wget Reboot, Periodic Reboot, LCP and ICMP for link inspection  |
| Firewall                           | Port forward, traffic rules, custom rules  |
| DHCP                               | Static and dynamic IP allocation, DHCP Relay   |
| QoS / Smart Queue Management (SQM) | Traffic priority queuing by source/destination, service, protocol or port, WMM, 802.11e  |
| DDNS                               | Supported >25 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   |
| SSHFS                              | Possibility to mount remote file system via SSH protocol   |

### SECURITY

|                      |   |
|----------------------|---|
| Authentication       | Pre-shared key, digital certificates, X.509 certificates, TACACS+, Radius, IP & Login attempts block  |
| Firewall             | Pre-configured firewall rules can be enabled via WebUI, unlimited firewall configuration via CLI; DMZ; NAT; NAT-T   |
| 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 | Mobile data limit, customizable period, start time, warning limit, phone number   |
| WEB filter           | Blacklist for blocking out unwanted websites, Whitelist for specifying allowed sites only   |
| Access control       | Flexible access control of TCP, UDP, ICMP packets, MAC address filter   |

**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              | 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   |
| 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  |
| 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.  |

**OPC UA**

|                            |                          |
|----------------------------|--------------------------|
| Supported modes            | Client, Server (planned) |
| Supported connection types | TCP                      |

**DNPS**

|                            |                     |
|----------------------------|---------------------|
| Supported modes            | Station, Outstation |
| Supported connection types | TCP                 |

**MODBUS**

|                            |  |
|----------------------------|--|
| Supported modes            | Server, Client   |
| Supported connection types | 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 Slave 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 |
|----------|---------------------------|

**Modbus MQTT GATEWAY**

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

**MONITORING & MANAGEMENT**

|          |  |
|----------|--|
| WEB UI   | HTTP/HTTPS, status, configuration, FW update, CLI, troubleshoot, event log, system log, kernel log |
| FOTA     | Firmware update from server, automatic notification  |
| SSH      | SSH (v1, v2)   |
| SMS      | SMS status, SMS configuration, send/read SMS via HTTP POST/GET                                     |
| Call     | Reboot, Status, Mobile data on/off, Output on/off, answer/hang-up with a timer, Wi-Fi on/off       |
| 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   |
| JSON-RPC | Management API over HTTP/HTTPS   |
| MODBUS   | MODBUS TCP status/control  |
| RMS      | Teltonika Remote Management System (RMS)   |

**IoT PLATFORMS**

|                 |  |
|-----------------|--|
| Cloud of Things | Allows monitoring of: Device data, Mobile data, Network info, Availability   |
| ThingWorx       | Allows monitoring of: WAN Type, WAN IP, Mobile Operator Name, Mobile Signal Strength, Mobile Network Type  |
| Cumulocity      | Allows monitoring of: Device Model, Revision and Serial Number, WAN Type and IP, Mobile Cell ID, ICCID, IMEI, Connection Type, Operator, Signal Strength   |
| Azure IoT Hub   | Can send device IP, Number of bytes send/received, Temperature, PIN count to Azure IoT Hub server, Mobile connection state, Network link state, IMEI, ICCID, Model, Manufacturer, Serial, Revision, IMSI, SIM State, PIN state, GSM signal, WCDMA RSCP, WCDMA EC/IO, LTE RSRP, LTE SINR, LTE RSRQ, CELL ID, Operator, Operator number, Connection type |

**SYSTEM CHARACTERISTICS**

|               |                              |
|---------------|------------------------------|
| CPU           | Mediatek, 580 MHz, MIPS 24Kc |
| RAM           | 128MB, DDR3                  |
| FLASH storage | 16 MB, SPI Flash             |

**FIRMWARE / CONFIGURATION**

|               |  |
|---------------|--|
| WEB UI        | Update FW from file, check FW on server, configuration profiles, configuration backup, restore point |
| FOTA          | Update FW  |
| RMS           | Update FW/configuration for multiple devices at once   |
| Keep settings | Update FW without losing current configuration   |

**FIRMWARE CUSTOMIZATION**

|                     |   |
|---------------------|---|
| Operating system    | RutOS (OpenWrt based Linux OS)                                  |
| Supported languages | Busybox shell, Lua, C, C++, and Python, Java in Package manager |
| Development tools   | SDK package with build environment provided                     |

**INPUT/OUTPUT**

|             |   |
|-------------|---|
| Input       | 1 x Digital Input, 0 - 6 V detected as logic low, 8 - 30 V detected as logic high |
| Output      | 1 x Digital Output, Open collector output, max output 30 V, 300 mA                |
| Events      | Email, RMS, SMS   |
| I/O juggler | Allows to set certain I/O conditions to initiate event                            |

**POWER**

|                     |   |
|---------------------|---|
| Connector           | 4-pin industrial DC power socket  |
| Input voltage range | 9 - 30 VDC, reverse polarity protection, voltage surge/transient protection   |
| PoE (passive)       | Passive PoE over spare pairs. Possibility to power up through LAN port, not compatible with IEEE802.3af, 802.3at and 802.3bt standards, Mode B, LAN1 Port, 9 - 30 VDC |
| Power consumption   | < 2 W idle, < 6.5 W Max   |

**PHYSICAL INTERFACES (PORTS, LEDS, ANTENNAS, BUTTONS, SIM)**

|             |   |
|-------------|---|
| Ethernet    | 2 x RJ45 ports, 10/100 Mbps   |
| I/O's       | 1 x Digital Input, 1 x Digital Output on 4-pin power connector  |
| Status LEDs | 2 x Connection type status, 5 x Mobile connection strength, 1 x LAN status, 1 x WAN status, 1 x Power |
| SIM         | 1 x SIM slot (Mini SIM - 2FF), 1.8 V/3 V, external SIM holder, eSIM (Optional)                        |
| Power       | 1 x 4-pin power connector   |
| Antennas    | 2 x SMA for LTE, 1 x RP-SMA for Wi-Fi   |
| Reset       | Reboot/User default reset/Factory reset button  |

**PHYSICAL SPECIFICATION**

|                        |                                  |
|------------------------|----------------------------------|
| Casing material        | Aluminum housing, plastic panels |
| Dimensions (W x H x D) | 83 x 25 x 74 mm                  |
| Weight                 | 130 g                            |
| Mounting options       | DIN rail, flat surface placement |

**OPERATING ENVIRONMENT**

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

**REGULATORY & TYPE APPROVALS**






|            |                                    |
|------------|------------------------------------|
| Regulatory | CE/RED, UKCA, UCRF, RCM, EAC, WEEE |
|------------|------------------------------------|

## WHAT'S IN THE BOX?

### STANDARD PACKAGE CONTAINS\*

- Router RUT260
- 9 W PSU
- 2 x LTE antennas (swivel, SMA male)
- 1 x Wi-Fi antenna (swivel, RP-SMA male)
- Ethernet cable (1.5 m)
- SIM Adapter kit
- QSG (Quick Start Guide)
- Packaging box



|   |   |  |
|---|---|--|
|  <p><b>ROUTER RUT260</b></p>                            |  <p><b>9 W PSU</b></p>          |  <p><b>2 X LTE ANTENNAS (SWIVEL, SMA MALE)</b></p> |
|  <p><b>1 X WI-FI ANTENNA (SWIVEL, RP-SMA MALE)</b></p> |  <p><b>SIM ADAPTER KIT</b></p> |  <p><b>ETHERNET CABLE (1.5 M)</b></p>             |

\* For all standard order codes standard package contents are the same, except for PSU.

## STANDARD ORDER CODES

| PRODUCT CODE | HS CODE | HTS CODE   | PACKAGE CONTAINS               |
|--------------|---------|------------|--------------------------------|
| RUT260000000 | 851762  | 8517.62.00 | Standard package with Euro PSU |

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

## AVAILABLE VERSIONS

| PRODUCT CODE  | REGION (OPERATOR)   | FREQUENCY  |
|---------------|---|--|
| RUT260 0***** | Europe <sup>1</sup> , the Middle East, Africa, Australia, New Zealand | <ul style="list-style-type: none"> <li>• <b>4G (LTE-FDD):</b> B1, B3, B5, B7, B8, B20, B28, B32</li> <li>• <b>4G (LTE-TDD):</b> B38, B39, B40, B41, B42, B43</li> <li>• <b>3G:</b> B1, B3, B5</li> </ul> |

The price and lead-times for region (operator) specific versions may vary. For more information please contact us.  
<sup>1</sup> - Regional availability - excluding Russia & Belarus.

# RUT260 SPATIAL MEASUREMENTS & WEIGHT

## MAIN MEASUREMENTS

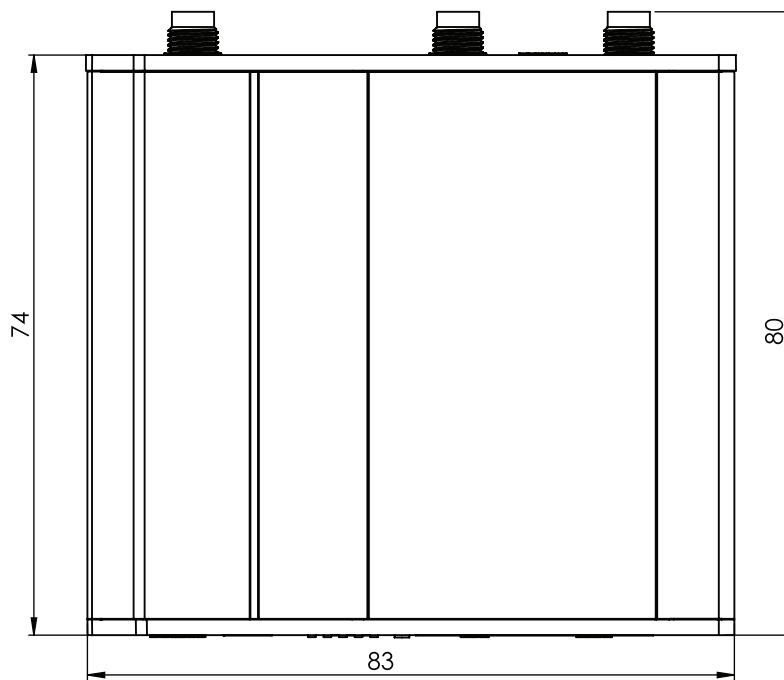
W x H x D dimensions for RUT260:

|                  |                   |
|------------------|-------------------|
| Device housing*: | 83 x 25 x 74 mm   |
| Box:             | 173 x 71 x 148 mm |

\*Housing measurements are presented without antenna connectors and screws; for measurements of other device elements look to the sections below.

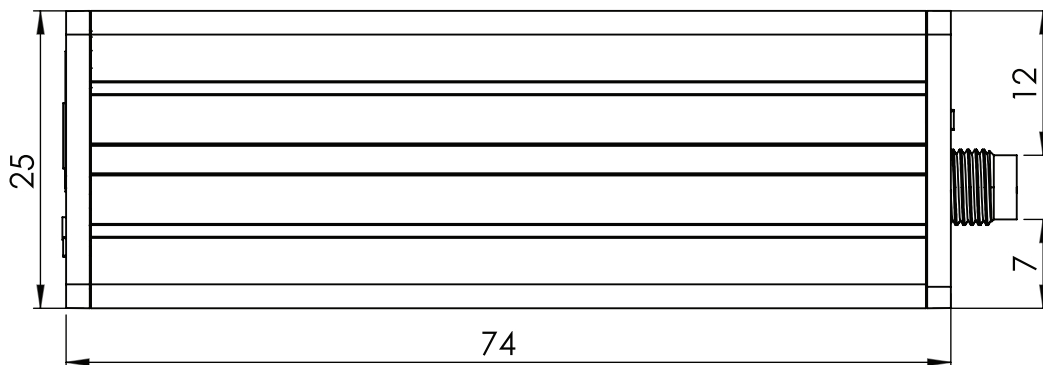
## TOP VIEW

The figure below depicts the measurements of RUT260 and its components as seen from the top:



## RIGHT VIEW

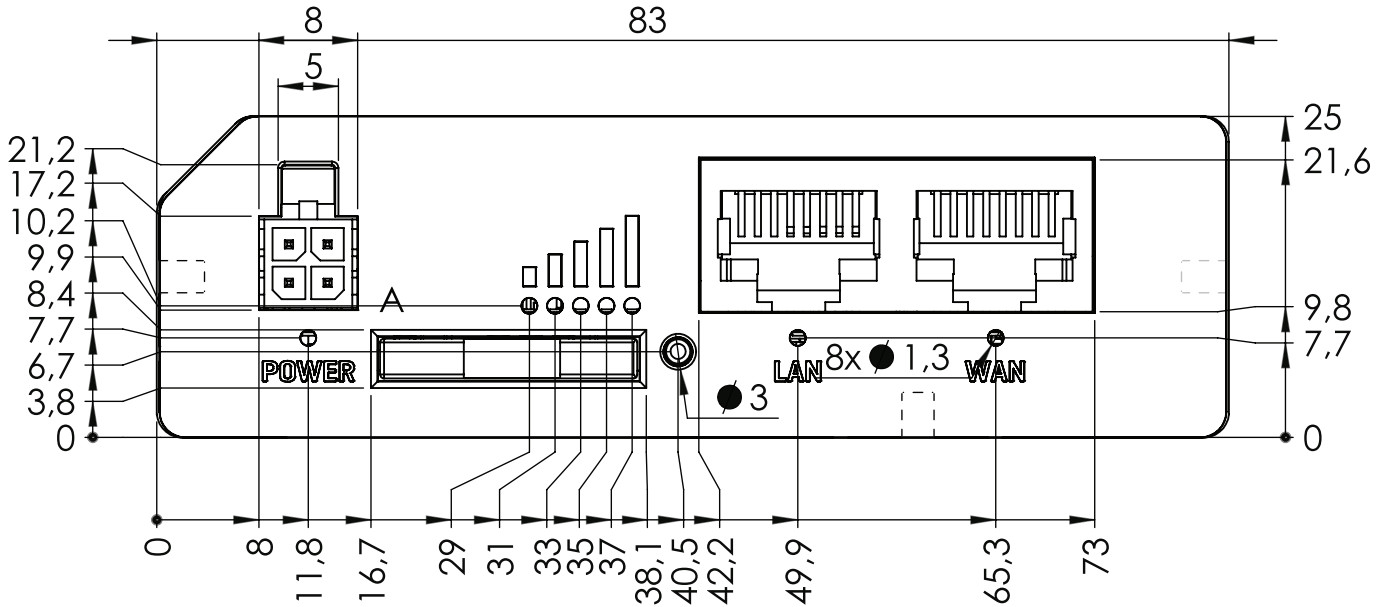
The figure below depicts the measurements of RUT260 and its components as seen from the right side:





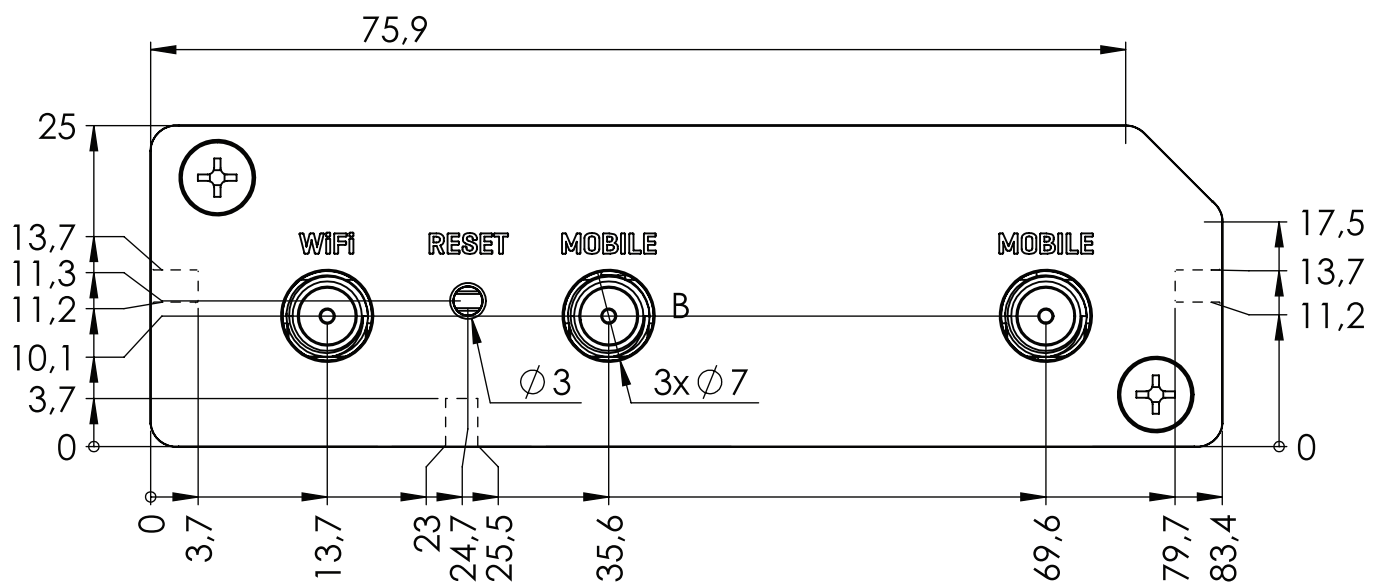
**FRONT VIEW**

The figure below depicts the measurements of RUT260 and its components as seen from the front panel side:



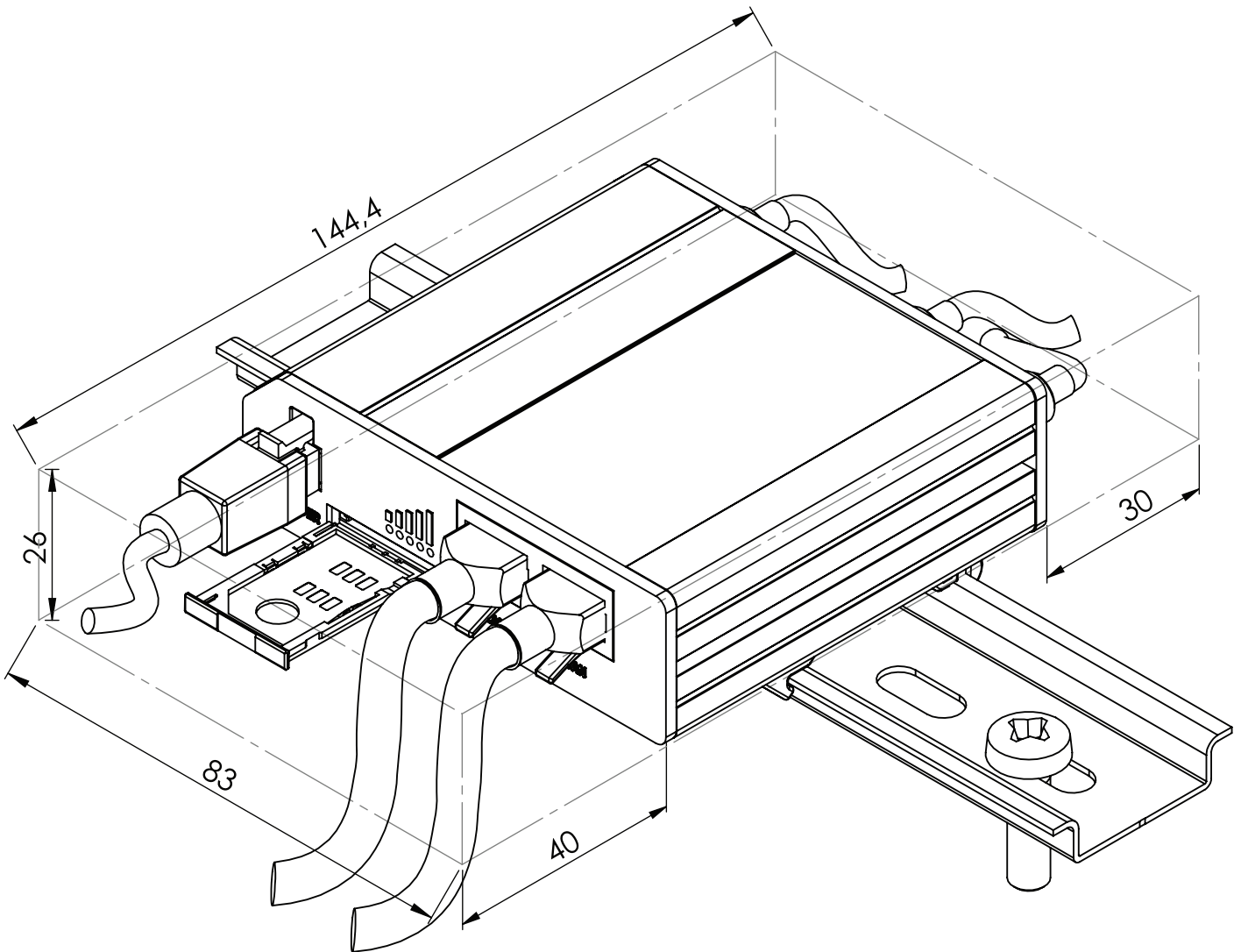
**REAR VIEW**

The figure below depicts the measurements of RUT260 and its components as seen from the back panel side:



**MOUNTING SPACE REQUIREMENTS**

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



DIN RAIL

The scheme below depicts protrusion measurements of an attached DIN Rail:

