

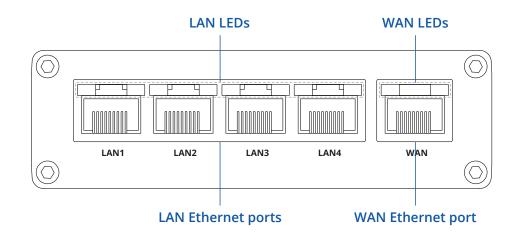
# **RUT300**



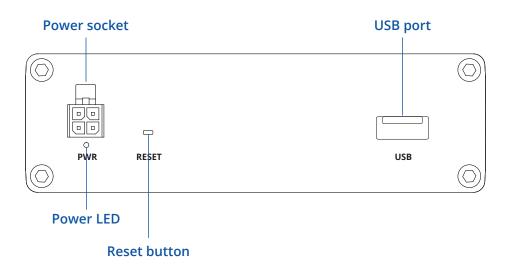


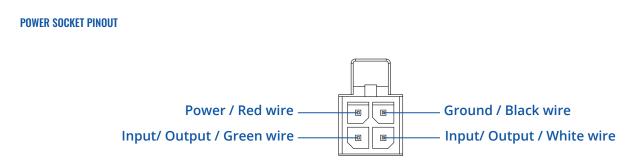
## HARDWARE

#### **FRONT VIEW**



**BACK VIEW** 





I/O (PIN 3 and 4): Configurable digital Input/Output pins. Open collector output, max output 30 V, 300 mA or Digital input where 0-6 V detected as logic low and 8-30 V – logic high



# **FEATURES**

#### ETHERNET

1 x WAN port 10/100 Mbps, compliance IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX		
4 x LAN ports, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX crossover		
Static routing, Dynamic routing (BGP, OSPF v2, RIP v1/v2, EIGRP, NHRP), Policy based routing		
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)		
H.323 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets		
Ping Reboot, Wget Reboot, Periodic Reboot, LCP and ICMP for link inspection		
Port forward, traffic rules, custom rules		
Static and dynamic IP allocation, DHCP Relay		
Traffic priority queuing by source/destination, service, protocol or port, WMM, 802.11e		
Supported >25 service providers, others can be configured manually		
VRRP, Wired options, each of which can be used as an automatic Failover		
Balance Internet traffic over multiple WAN connections		
Possibility to mount remote file system via SSH protocol		
Pre-shared key, digital certificates, X.509 certificates, TACACS+, Radius, IP & Login attempts block		
Pre-configured firewall rules can be enabled via WebUI, unlimited firewall configuration via CLI; DMZ; NAT; NAT-T		
DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), port scan prevention (SYN SYN-RST, X-mas, NULL flags, FIN scan attacks)		
Port and tag-based VLAN separation		
Blacklist for blocking out unwanted websites, Whitelist for specifying allowed sites only		
Flexible access control of TCP, UDP, ICMP packets, MAC address filter		
Multiple clients and a server can run simultaneously, 27 encryption methods		
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-CFB 192, AES-192-		
IKEv1, IKEv2, with 14 encryption methods for IPsec (3DES, DES, AES128, AES192, AES256, AES128GCM8, AES192GCM8, AES256GCM8, AES128GCM12, AES192GCM12, AES256GCM12, AES128GCM16, AES192GCM16, AES256GCM16)		
GRE tunnel, GRE tunnel over IPsec support		
Client/Server instances can run simultaneously, L2TPv3, L2TP over IPsec support		
Proxy designed to add TLS encryption functionality to existing clients and servers without any changes in the program's code		
Method of building scalable IPsec VPNs		
SSTP client instance support		
ZeroTier VPN client support		
WireGuard VPN client and server support		
Tinc offers encryption, authentication and compression in it's tunnels. Client and server support		
Respond to one ID in range [1;255] or any		
Allow access through WAN		



Supported functions	01, 02, 03, 04, 05, 06, 15, 16		
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)		
DATA TO SERVER			
Protocol	HTTP(S), MQTT, Azure MQTT, Kinesis		
MQTT GATEWAY			
MQTT Gateway	Allows sending commands and receiving data from MODBUS Master through MQTT broker		
DNP3			
Supported modes	TCP Master, DNP3 Outstation		
MONITORING & MANAGE	MENT		
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)		
TR-069	OpenACS, EasyCwmp, ACSLite, tGem, LibreACS, GenieACS, FreeACS, LibCWMP, Friendly tech, AVSystem		
NQTT	MQTT Broker, MQTT publisher		
SNMP	SNMP (v1, v2, v3), SNMP Trap		
SON-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		
Cumulocity	Allows monitoring of: Device Model, Revision and Serial Number, WAN Type and IP		
Azure loT Hub	Can send device IP, Number of bytes send/received, Temperature, PIN count to Azure IoT Hub server		
SYSTEM CHARACTERISTICS	5		
CPU	QCA9531, MIPS 24kc, 650 MHz		
RAM	64 MB, DDR2		
LASH storage	16 MB, SPI Flash		
FIRMWARE / CONFIGURAT	ION		
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		
	N		
Operating system	RutOS (OpenWrt based Linux OS)		
Supported languages	Busybox shell, Lua, C, C++		
Development tools	SDK package with build environment provided		
USB			

Data rate	USB 2.0	
Applications	Samba share, USB-to-serial	
External devices	Possibility to connect external HDD, flash drive, additional modem, printer, USB-serial adapter	
Storage formats	FAT, FAT32, exFAT, NTFS (read-only), ext2, ext3, ext4	



#### **INPUT / OUTPUT**

Input	2 x Configurable digital Inputs. Digital input 0 - 5 V detected as logic low, 8 - 30 V detected as logic high		
Output	2 x Configurable digital Outputs. Open collector output, max output 30 V, 300 mA		
Events	Email, RMS		
I/O juggler	Allows to set certain I/O conditions to initiate event		
POWER			
Connector	4-pin industrial DC power socket		
Input voltage range	7 - 30 VDC, reverse polarity protection, voltage surge/transient protection		
PoE (passive)	Passive PoE. Passive PoE over spare pairs. Possibility to power up through LAN1 port, not compatible with IEEE802.3af, 802.3a and 802.3bt standards, Mode B, 9 - 30 VDCto power up through LAN port, not compatible with IEEE802.3af, 802.3at and 802.3bt standards		
Power consumption	Idle: 1.3 W, Max: 3 W		
PHYSICAL INTERFACES			
Ethernet	5 x RJ45 ports, 10/100 Mbps		
I/Os	2 x Configurable I/O pins on 4-pin power connector		
Status LEDs	5 x ETH status, 1 x Power		
Power	1 x 4-pin power connector		
USB	1 x USB A port for external devices		

## PHYSICAL SPECIFICATION

Casing material	Aluminum housing	
	Automatin Housing	
Dimensions (W x H x D)	100 x 30 x 85 mm	
Weight	229 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

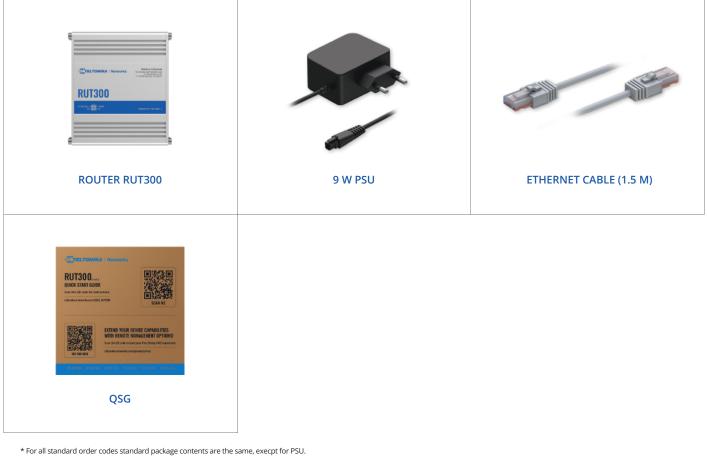
CE/RED, UKCA, CB, UCRF, RoHS, REACH, CITC, ANRT, RCM, ETA-WPC, KC, FCC, IC, NOM



# WHAT'S IN THE BOX?

#### STANDARD PACKAGE CONTAINS\*

- Router RUT300
- 9 W PSU
- Ethernet cable (1.5 m)
- QSG (Quick Start Guide)
- Packaging box



## **STANDARD ORDER CODES**

PRODUCT CODE	HS CODE	HTS CODE	PACKAGE CONTAINS
RUT300 000000	851762	8517.62.00	Standard package with EU PSU
RUT300 000100	851762	8517.62.00	Standard package with US PSU
RUT300 000200	851762	8517.62.00	Standard package with UK PSU
RUT300 000300	851762	8517.62.00	Standard package with AU PSU

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



# **RUT300 SPATIAL MEASUREMENTS & WEIGHT**

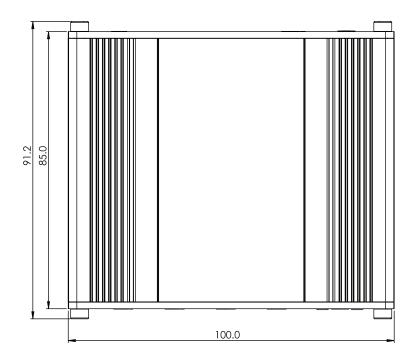
#### MAIN MEASUREMENTS

W x H x D dimensions for RUT300:		
Device housing*:	100 x 30 x 85 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.

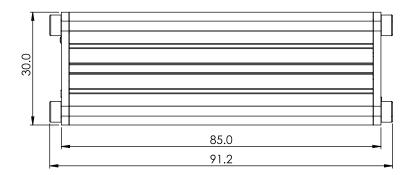
#### **TOP VIEW**

The figure below depicts the measurements of RUT300 and its components as seen from the top:



#### **RIGHT VIEW**

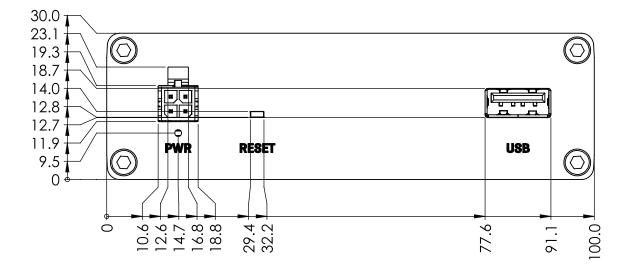
The figure below depicts the measurements of RUT300 and its components as seen from the right side:





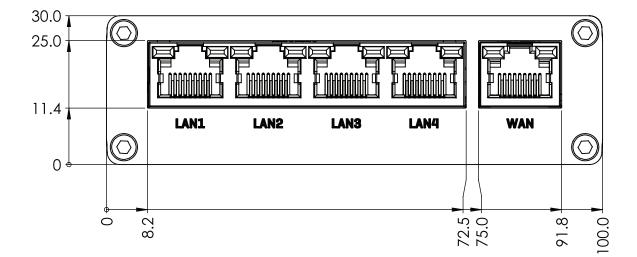
#### FRONT VIEW

The figure below depicts the measurements of RUT300 and its components as seen from the front panel side:



#### **REAR VIEW**

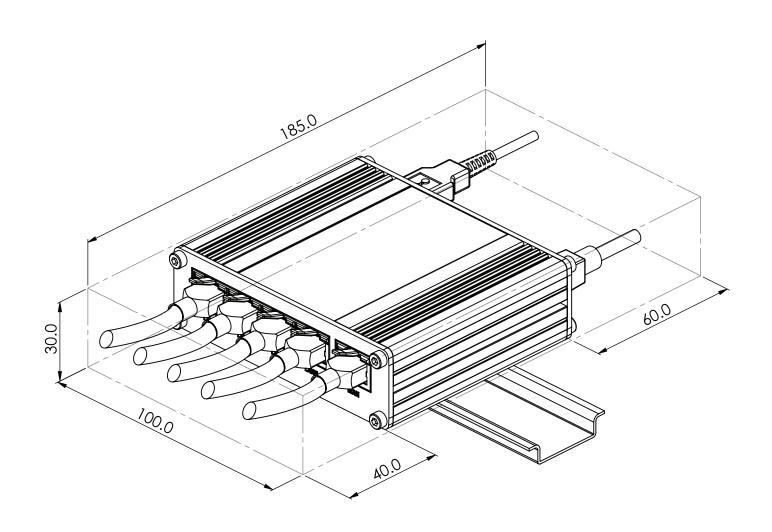
The figure below depicts the measurements of RUT300 and its components as seen from the back panel side:





## 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:

