Specification:

ETHERNET

WAN: 1 x WAN port (can be configured to LAN) 10/100/1000 Mbps, comply IEEE 802.3, IEEE 802.3u, 802.3az standards, supports auto MDI/MDIX crossover
LAN: 3 x LAN ports, 10/100/1000 Mbps, comply 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)
Network protocols: TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSL v3, TLS, ARP, VRRP, PPP, PPPoE, UPNP, SSH, DHCP, Telnet, SMPP, MQTT
VoIP passthrough support: H.232 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets
Connection monitoring: Ping Reboot, Periodic Reboot, LCP and ICMP for link inspection
Firewall: Port forward, traffic rules, custom rules
DHCP: Static and dynamic IP allocation, DHCP Relayd
QoS: 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: VRRP
SSHFS (optional): Possibility to mount remote file system via SSH protocol (not available in standard FW)

SECURITY

Authetication: Pre-shared key, digital certificates, X.509 certificates
Firewall: Pre-configured firewall rules can be enabled via web-ui, 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 based and tag based VLAN separation
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 server can be running simultaneously, 12 encryption methods
OpenVPN Encryption: DES-CBC, RC2-CBC, DES-EDE-CBC, DES-EDE3-CBC, DESX-CBC, BF-CBC, RC2-40-CBC, CAST5-CBC, RC2-64-CBC, AES-128-CBC, AES-192-CBC, AES-256-CBC
IPsec: IKEv1, IKEv2, supports up to 4 x VPN IPsec tunnels (instances), with 5 encryption methods (DES, 3DES, AES128, AES192, AES256)
GRE: GRE tunnel
PPTP, L2TP: Client/Server services can run simultaneously
Stunnel: Proxy designed to add TLS encryption functionality to existing clients and servers without any changes in the programs' code

MONITORING & MANAGEMENT

WEB UI: HTTP, 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, AVsystems
MQTT: MQTT Broker, MQTT publisher
WEB UI: HTTP/HTTPS, status, configuration, FW update, CLI, troubleshoot, event log, system log, kernel log
JSON-RPC: Management API over HTTP/HTTPS
MODBUS: MODBUS TCP status/control
RMS: Teltonika Remote Management System (RMS)

SYSTEM CHARACTERISTICS

CPU: Quad-core ARM Cortex A7, 717 MHz
RAM: 256 MB, DDR2
FLASH memory: 256 MB SPI Flash

FIRMWARE / CONFIGURATION

WEB UI: Update FW from file, check FW on server, configuration profiles, configuration backup
FOTA: Update FW/configuration from server

RMS: Update FW/configuration for multiple devices
Keep settings: Update FW without losing current configuration

FIRMWARE CUSTOMIZATION

Operating system: RutOS (OpenWrt based Linux OS)
Supported languages: Busybox shell, Lua, C, C++
Development tools: SDK package with built environment provided

USB

Data rate: USB 2.0
Applications: Samba share, custom scripts
External devices: Possibility to connect external HDD, flash drive, additional modem, printer
Storage formats: FAT, FAT32, NTFS

POWER

Connector: 4 pin industrial DC power socket
Input voltage range: 9 - 50 VDC, reverse polarity protection, voltage surge/transient protection
PoE (passive): Passive PoE. Possibility to power up through LAN port, not compatible with IEEE802.3af and 802.3at standards
Power consumption: 11 W Max

PHYSICAL INTERFACES (PORTS, LEDS, BUTTONS)

Ethernet: 4 x RJ45 ports, 10/100/1000 Mbps
Status LEDs: 8 x LAN status LEDs, 1 x Power LED
Power: 4 pin industrial DC power socket
USB: USB A port for external devices
Reset: Reset/restore to default button

PHYSICAL SPECIFICATION

Casing material: Full aluminium housing
Dimensions: 115 mm x 95 mm x 32 mm (H x W x D)
Weight: 357 g
Mounting options: DIN rail (can be mounted on two sides), flat surface placement

OPERATING ENVIRONMENT

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