**Item no.:** 386892
# TRB256 - CatM1 B31

## from **115,26 EUR**

**Item no.:** 386892
**shipping weight:** 0.20 kg
**Manufacturer:** Teltonika



📄 Product Description

Das TRB256 ist ein industrielles 4G LTE NB-IoT-Gateway, das für den Einsatz in einer Vielzahl von IoT-Lösungen entwickelt wurde. Das Gerät verfügt über mehrere WAN-Schnittstellen wie I/Os, RS232, RS485, einen Ethernet-Port sowie Dual-SIM-Funktionalität für kontinuierliche Konnektivität. Dieses industrietaugliche Gateway unterstützt auch das 450-MHz-Frequenzband, das im Vergleich zu Standardfrequenzen eine bessere LTE-Signaldurchdringung bietet und somit eine optimale Wahl für eine Vielzahl von M2M-Anwendungen darstellt. MOBILE- Mobile module: LTE Cat M1 /Cat NB1, NB2 / EGPRS (simultaneous operation of cellular and GNSS connectivity is not supported)- SIM switch: 2 SIM cards, auto-switch cases: weak signal, data limit, SMS limit, on roaming, no network, network denied, data connection fail- Status: IMSI, ICCID, operator, operator state, data connection state, network type, bandwidth, connected band, signal strength (RSSI), SINR, RSRP, RSRQ, EC/IO, RSCP, data sent/received, LAC, TAC, cell ID, ARFCN, UARFCN, EARFCN, MCC, and MNC- 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- Black/White list: Operator black/white list (by country or separate operators)- Band management: Band lock, Used band status display- SIM idle protection service: When working with devices with two SIM slots, the one not currently in use will remain idle until the device switches to it, meaning that no data is used on the card until then- APN: Auto APN- Bridge: Direct connection (bridge) between mobile ISP and device on LAN- Passthrough: Gateway assigns its mobile WAN IP address to another device on LANETHERNET- Ethernet: 1 x ETH port, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u, 802.3az standards, supports auto MDI/MDIX crossoverNETWORK- 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, SNMP, 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- Firewall status page: View all your Firewall statistics, rules, and rule counters- Ports 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- Hotspot: Captive portal (hotspot), internal/external Radius server, Radius MAC authentication, SMS authorisation, 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- 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- DDNS: Supported >25 service providers, others can be configured manually- Network backup: VRRP, Wired options, each of which can be used as an automatic Failover, Mobile- SSHFS: Possibility to mount remote file system via SSH protocolSECURITY- Authentication: Pre-shared key, digital certificates, X.509 certificates, TACACS+, Radius, IP & login attempts block, time-based login blocking, built-in random password generator- 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: 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 SSH, Web interface, CLI and TelnetVPN- 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.BACNET- Supported modes: Router- Supported connection types: RS485, TCPOPC UA- Supported modes: Client, Server- Supported connection types: TCPMODBUS- 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, ASCIIDATA TO SERVER- Protocol: HTTP(S), MQTT, Azure MQTT, Kinesis- Data to server: Extract parameters from multiple sources and different protocols, and send them all to a single serverMQTT GATEWAY- Modbus MQTT Gateway: Allows sending commands and receiving data from MODBUS Server through MQTT brokerDNP3- Supported modes: Station, Outstation- Supported connection types: RS232, RS485, TCPDLMS- DLMS Support: DLMS - standard protocol for utility meter data exchange. Support trough serial and TCPAPI- 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.comMONITORING & 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, send/read SMS via HTTP POST/GET- Call: Reboot, Status, Mobile data on/off, Output on/off, answer/hang-up with a timer- 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- 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 typeSYSTEM CHARACTERISTICS- CPU: Mediatek, 580 MHz, MIPS 24KEc- RAM: 128 MB- FLASH storage: 16 MBFIRMWARE / 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 configurationFIRMWARE 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.LOCATION TRACKING- GNSS: GPS. (GLONASS, BeiDou, Galileo and QZSS - under development); (simultaneous operation of GNSS and cellular connectivity is not supported)- Coordinates: GNSS coordinates via WebUI, SMS, TAVL, RMS- NMEA: NMEA 0183- NTRIP: NTRIP protocol (Networked Transport of RTCM via Internet Protocol)- Server software: Supported server software TAVL, RMS- Geofencing: Configurable multiple geofence zonesSERIAL- RS232: Terminal block connector: TX, RX, RTS, CTS- RS485: Terminal block connector: D+, D-, R+, R- (2 or 4 wire interface)- Serial functions: Console, Serial over IP, Modem, MODBUS gateway, NTRIP ClientINPUT / OUTPUT- Input: 3 x Digital Input, 0 - 6 V detected as logic low, 8 - 30 V detected as logic high- Output: 3 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 eventPOWER- Connector: 2-pin in 16-pin industrial terminal block- Input voltage range: 9 – 30 VDC, reverse polarity protection, surge protection +/-1 kV 50 µs max- Power consumption: Idle: <2 W, Max: <3.5 WPHYSICAL INTERFACES- Ethernet: 1 x RJ45 port, 10/100 Mbps- I/O's: 3 x Configurable digital I/O in 16-pin terminal block- Status LEDs: 3 x connection status LEDs, 3 x connection strength LEDs, 1 x power LED, 1 x Eth port status LED- SIM: 2 x SIM slots (Mini SIM – 2FF), 1.8 V/3 V, double stacked SIM tray- Power: 1 x 16-pin terminal block- Antennas: 1 x SMA connector for LTE, 1 x SMA connector for GNSS- RS232: 4-pin in 16-pin terminal block (TX, RX, RTS, CTS)- RS485: 4-pin in 16-pin terminal block (D+, D-, R+, R-)- Reset: Reboot/User default reset/Factory reset buttonPHYSICAL SPECIFICATION- Casing material: Aluminium housing- Dimensions (W x H x D): 83 x 25 x 74.2 mm- Weight: 165 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: IP30REGULATORY & TYPE APPROVALS- Regulatory: CE, UKCA, EAC, CBEMC EMISSIONS & IMMUNITY- Standards: EN 55032:2015 + A11:2020 + A1:2020EN 55035:2017 + A11:2020EN IEC 61000-3-2: 2019 + A1:2021EN 61000-3-3: 2013 + A1:2019 + A2:2021EN 301 489-1 V2.2.3EN 301 489-19 V2.2.1EN 301 489-52 V1.2.1- ESD: EN 61000-4-2:2009- Radiated Immunity: EN IEC 61000-4-3:2020- EFT: EN 61000-4-4:2012- Surge Immunity (AC Mains Power Port): EN 61000-4-5:2014 + A1:2017- CS: EN 61000-4-6:2014- DIP: EN 61000-4-11:2020RF- Standards: EN 301 908-1 V15.2.1EN 301 908-13 V13.2.1EN 303 413 V1.2.1SAFETY- Standards: CE: EN IEC 62368-1:2020 + A11:2020, EN IEC 62311:2020RCM: AS/NZS 62368.1:2022CB: IEC 62368-1:2018

📄 Specifications

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All details, up-to-date prices and availability