TRB246 Firmware Downloads

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This page contains firmware files for TRB246 devices. Look to the table below or the changelog to find download links.

To upgrade firmware using WebUI, follow the instructions in TRB246 Firmware.

TRB246

File	Type	Release date	Size	MD5	Changelog
TRB2M_R_00.07.08_WEBUI.bin	Latest FW	2024.07.18	10.56 MB	c79f6970f9af8a996d9835e953a67abd	Link
TRB2M_R_00.07.07.2_WEBUI.bin	Mass production FW	2024.06.12	10.44 MB	80740faed97d4128754a6e2f12ea8a22	Link
TRB2M_R_GPL_00.07.08.tar.gz	SDK	2024.07.18	19.75 MB	ed93e543823ad984554c565a5e7b2923	

Note: packages for Package Manager are independent from firmware and can be downloaded in the Package Downloads page.

FW checksums

Checksums for firmware files can be found **here**.

Changelog

Global RUTOS changelog can be found here: **LINK**

* This is universal changelog of RUTOS. Changes made to features that are not present in some devices, do not affect them.

TRB2M_R_00.07.08 | 2024.07.18

- **New**
  - **Network**
    - DNS: added inherited server status to configuration page
    - HTTPS DNS Proxy: added new HTTPS DNS Proxy package to package manager
    - Mobile: added SIM card lock/unlock functionality in Mobile->Utilities page
    - Mobile: added SIM card PIN change functionality in Mobile->Utilities page
    - Mobile: added new Mobile->Limits page which shows information and allows to configure Data and SMS limits
    - Mobile: added DFOTA support for RG520N modems
    - Mobile: added nr-arfcn display to mobile status page

- Mobile: added dfota support for devices with RG520N-EB modem
  - **Services**
    - Data to Server: added 'Lua script' data input
    - Input/Output: added ability to configure gpio debounce timer and changed default gpio debounce timer value from 200 ms to 10 ms
    - IPsec: added initial XFRM support
    - MQTT Modbus Gateway: added JSON message type format
    - OpenVPN: added DCO support
  - **System**
    - API Core: added option to configure api session timeout
    - Certificates: added "Let's encrypt" certificate generation
    - PAM: added RADIUS external user support
    - UI Core: added data analytics support
    - Update Firmware: added warning message about device being temporarily unreachable on firmware update
- **Improvements**
  - **Network**
    - DNS: separated field "DNS forwardings" into two: one for simple server forwarding other for domain-specific
    - DNS: moved "DNS Forwardings", "Listen interfaces", "Exclude interfaces", "Local service only", options to advanced tab
    - Firewall: improved protocol field in all firewall pages by making that "All" value would be mutually exclusive with any other value
    - Mobile: improved IMS context initialization
    - Mobile: updated SMS memory management for multipart SMS
    - Mobile: added error message when attempting to enable the SIM switch without any criteria set
    - Mobile: added informative message in SIM switch page when Data/SMS limit criteria are enabled but the limits themselves are not set up
    - Mobile: moved operator list allowlist/blocklist selection to Network selection page
    - Mobile: refactored Scanned operators modal, added repeat scan button
    - Mobile: added ability to view previously scanned operators in Network selection and Operator lists pages
    - Mobile: added ability to edit operator list name and initiate scans for operators in Operator lists page
    - Mobile: updated operator code field list to include APNs from the APN database in Operator lists page
    - Mobile: split Mobile->General page into three pages: General, Connection and Utilities pages
    - Mobile: added mobile interface with highest priority APN configuration in Mobile->General page
    - Mobile: added icons with hints which show SIM card, operator, data connection statuses in Mobile->General page
    - Mobile: moved Mobile data limit section to a tab in WAN page
    - Mobile: added informative message in WAN page to indicate whether the connection will be made using APN from APN database, empty or custom APN
    - Mobile: improved logging of ping error messages
    - Mobile: added 5G SA/NSA mode selection
    - Mobile: improved modem updater to stop ping reboot service while update is in progress
    - Mobile: improved the handling of denied messages upon SIM switch

- Mobile: added notification when a multi-IMSI SIM card is using Auto APN
- Mobile: added validation to not allow passthrough and bridge mode when one already exists
- Mobile: improved safeguards for modem services startup
- Mobile: improved modem update status display
- Mobile: added corrupted mobile statistics database restoration functionallity
- Mobile: improved setting of IPv4 and IPv6 types inside the modules
- Mobile: improved provider name parsing for SLM750 modem
- Multi WAN: improved interface status representation when using load balancing
- Network: added more options for "IPv6 assignment length" field
- VLAN: added ability to configure VLAN 0
  - **Services**
    - Azure IoT Hub: added DPS symmetric key attestation support
    - Azure IoT Hub: added Direct Method support
    - Azure IoT Hub: added Plug and Play integration
    - Azure IoT Hub: added link to "Data to Server" page
    - Data to Server: added support for multiple filters
    - Data to Server: improved HTTP output hostname definition with automatic protocol specification in URL
    - Data to Server: improved MQTT input connection handling
    - DNP3 Client: added option to enable/disable service
    - Dynamic DNS: added Lookup hostnames support
    - GPS: added send empty feature, which sends zeroed location data after specified GNSS loss timeout
    - GRE: increased Inbound and Outbound key limit to 4294967295
    - Input/Output: added custom name support in I/O status page
    - IPsec: added certificate warning message
    - Mobile Utilities: added interface option to sms_utils cellular command
    - Mobile Utilities: improved error log message
    - Mobile Utilities: improved naming of I/O pins in initial I/O status rule
    - Mobile Utilities: sms utilities authentication brute force prevention
    - Modbus Server: added mobile last month and last week usage registers
    - Modem Control: disabled canonical mode by default for partial mode. Now full/partial mode input from serial port works the same way
    - Mosquitto: added large package size check for MQTT clients
    - MQTT Modbus Gateway: improved mosquitto reconnect time and service will try to recover few times before exiting
    - MQTT Publisher: improved MQTT connection handling
    - OPC UA Client: added security modes
    - OPC UA Server: added security modes
    - OPC UA Server: added service status display
    - OpenVPN: added support for decrypting private key when uploading a configuration file
    - OpenVPN: improved instance status state
    - OpenVPN: added options to specify an IP address pool for dynamic assignment to clients
    - Over IP: added label to show how many servers a client is connected to
    - Over IP: connect on data feature will not disconnect immediately after data transfer but wait for inactivity timeout
    - Over IP: increased TLS handshake timeout to 10 seconds
    - SMPP: added brute-force prevention

- SMPP: added TLS/SSL support
- SMS Utilities: added security warning in "Authorization method" configuration
- SNMP: changed interface module OID structure
- SNMP: improved User-based Security Model (USM) brute force attack prevention measures
- Stunnel: improved global instance settings dependencies
- emailrelay: updated version to 2.4.1
- OpenVPN: updated version to 2.6.9
- stunnel: updated version to 5.72

- **System**
  - Access Control: added certificate key length warnings
  - Access Control: adjusted access control when all pages are blocked
  - Access Control: added certificate file download for CLI to work on all browsers
  - API Core: implemented functionality to include warning messages for vulnerable certificates
  - Boot: improved modem startup reliability
  - Package Manager: added multi package actions
  - Package Manager: added status filter
  - Package Manager: moved package upload action to main page
  - Package Manager: added links to installed packages pages
  - Package Manager: refactored "Packages" page
  - Package Manager: updated opkg repository link to use https
  - RutOS: improved GPL example page to align with new software architecture
  - Troubleshoot: refactored Modem debug section to display responses in single field, added clear button to remove received responses
  - Troubleshoot: added support for multiple syslog servers
  - UI Core: added additional message with IP address to loading screen for scenarios when redirect to different IP address happens
  - UI Core: added toast message hiding when text is too long
  - Update Firmware: added 'Firmware version' data in screen after firmware upload
  - WebUI: added functionality to cancel loading screen if it takes 30 or more seconds
  - WebUI: removed all ubus method calls from webui
  - WebUI: improved language caching
  - WebUI: added password generator for first login modal
  - WebUI: added sticky position to side menu
  - WebUI: added default password hint to login error message
  - WebUI: added warning messages for low-security certificates
  - Kernel: updated version to 5.15.159
  - libexpat: updated version to 2.6.2
  - SSL/TLS: updated version to 3.0.14
  - vue: updated version to 3.4
- **Fix**
  - **Network**
    - Devices: fixed missing API devices status endpoint permission
    - DHCP: fixed "DHCP option" allow empty input value
    - DHCP: fixed IPv4 leases being not correctly shown when NTP synchronizes time
    - DHCP: fixed DHCP error that occurred after changing the subnet of the LAN IP address in the setup wizard
    - Dynamic routes: fixed duplicated external routes cards
    - Firewall: fixed firewall zone validation when adding interfaces
    - Mobile: fixed low signal reconnect being available on modems where it is not

supported
- Mobile: fixed gsmctl -E output to return only json values
- Mobile: fixed Carrier Aggregation signal strength info
- Mobile: fixed wrong mobile data limit used data format for sms messages
- Mobile: fixed duplicate data connection event reporting
- Mobile: fixed an issue where low signal notifications were displayed without a SIM card
- Mobile: fixed modem serial number acquisition after modem reboot
- Mobile: fixed an issue when 4G-only network type selection may have resulted in a slower connection to the operator
- Mobile: fixed issue where USSD responses were returned in HEX format instead of text format for EC200A module
- Mobile: fixed issue where DHCP filter was not set correctly for RG501Q
- Mobile: fixed an issue where the wrong IP address was used after a DFOTA upgrade
- Network: fixed overriding MAC address for interfaces that are bridged
- Network: fixed not getting IP address when switching LAN to WAN
- Realtime Traffic: fixed mobile usage by week day translation by device language
- SQM: fixed missing PPP mobile device selection in SQM configuration

- **Services**
  - BACnet: fixed incorrect BACnet IP port used for sending responses
  - BGP: fixed route map sequence going out of range
  - BGP: fixed listen range field allowing multiple entries
  - DLMS: fixed DLMS test response format
  - DLMS: fixed COSEM group validation
  - DLMS: fixed API POST error for /dlms/devices/config endpoint
  - DLMS: fixed serial connection not working after reboot
  - DNP3 Client: fixed to allow reading objects past 255 index
  - DNP3 Client: fixed incorrect hints
  - DNP3 Outstation: fixed serial outstation starting issues
  - GPS: fixed GPS start constellations issue
  - GPS: fixed an issue where NMEA sentences were parsed incorrectly at midnight, resulting in a 24-hour time discrepancy
  - GPS: fixed gpsctl datetime parameter
  - GPS: fixed issue where DPO would not get disabled if GPS is started without DPO
  - GPS: fixed AVL TAVL rule signal value issue
  - GPS: fixed default AVL rule issue where I/O would be ignored by default
  - GPS: fixed BeiDou and QZSS seperation in PQGSV sentences
  - GPS: fixed NMEA sentences reading in NMEA collecting
  - I/O Juggler: fixed improper dout action config handling
  - I/O Juggler: updated profile change action
  - Input/Output: allow unselecting all Post/Get access methods
  - IPsec: fixed connectivity issues when using WAN failover
  - IPsec: fixed the instance status when the local firewall option is disabled
  - Ledman: fixed issue when after some time network type LED starts blinking
  - Modbus Client: fixed test request option validation
  - Modbus Client: fixed alarm output action display values
  - Modbus Client: fixed incorrect period hint
  - Modbus Server: fixed APN register not clearing APN
  - Modbus Server: fixed 148 and 164 modbus registers
  - Modbus Server: fixed incorrect hints

- Modem Control: fixed API POST request validation
- NTRIP: fixed NTRIP NMEA generation timestamp and coordinates errors
- NTRIP: fixed configuration reading with several instances added
- OPC UA Server: fixed not starting while modem is down
- OpenVPN: fixed displaying imported files from device
- OpenVPN: fixed the private key decryption for cases when a password is used
- OpenVPN: fixed data cipher migration
- Over IP: fixed issue where serial device does not recover after modem reboot
- Over IP: fixed connect on data initiating TCP connection after few data transfers
- Overview: fixed issue when devices without WiFi send additional request without data
- SMPP: fixed username bypass problem
- SMPP: fixed password validation
- SMS Gateway: fixed SMS to Email recipient formatting according to RFC5322
- SNMP: fixed GSM mSignal OID value type
- SNMP: fixed GSM module memory leaks
- SSTP: fixed functionality when the default route option is not enabled
- Web Filter: fixed whitelist not working for some hosts when using IPv6
- **System**
  - Administration: fixed repeated validation on cleared inputs and added validation when new password matches the old one
  - API Core: fixed API method validation during upload action
  - API Core: fixed error messages for POST method
  - API Core: fixed option list validation
  - Boot: fixed factory settings restore (firstboot) not deleting hidden files
  - Events Log: fixed refresh button in event log table
  - IP Block: fixed adding MAC addresses back to whitelist when unblocking all of them
  - Recipients: made phone number field required
  - Setup Wizard: fixed lan ip step not changing ip address
  - Troubleshoot: fixed system log and kernel log buttons to be enabled with read only rights
  - Update Firmware: fixed misleading "Firmware version" status of "N/A" to "FOTA service is disabled" when FOTA is disabled
  - Update Firmware: fixed issue when infinite spinner appears after updating device firmware from server without having internet connection
- **CVE Patches**
  - Patched CVE-2023-52425
  - Patched CVE-2023-52530
  - Patched CVE-2024-25629
  - Patched CVE-2024-28757

[TRB2M_R_00.07.07.3](#) | 2024.06.25

- **Fix**
  - **Network**
    - WebUI: fixed port advertisement change
  - **System**
    - FOTA: fixed config when upgrading from older firmware with keep settings

- **CVE Patches**
    - CVE-2024-31950
    - CVE-2024-31951

[TRB2M_R_00.07.07.2](#) | 2024.06.12

- **Improvements**
    - **Network**
        - Zerotier: added backup WAN interface blacklisting if WAN failover is enabled
        - Mobile: improved communication stability with eSIM
    - **Services**
        - SNMP: added bruteforce attack prevention when using SNMP v3 user
        - L2TP: improved reconnect attempt logic
    - **System**
        - SSH: removed weak SSH algorithms
        - Telnet: moved to Package Manager
- **Fix**
    - **Network**
        - BGP: fixed instance migration issues
        - Mobile: fixed forced APN configuration
    - **Services**
        - DMVPN: fixed duplicate NHRP map entries creation
        - OpenVPN: added fixes for the insecure tls-cert-profile option usage
    - **System**
        - IP Block: fixed blocking of UDP traffic
        - Uboot: fixed firmware recovery update via uboot on Windows
- **CVE Patches**
    - CVE-2024-31948

[TRB2M_R_00.07.06.10](#) | 2024.04.04

- Global changelog for **R_00.07.06.10** - [LINK](#)

TRB2M_R_00.07.06.8 | 2024.03.25

- Firmware **R_00.07.06.8** was removed due to an issue with inefficient memory allocation for LED control.

[TRB2M_R_00.07.06.6](#) | 2024.03.04

- Global changelog for **R_00.07.06.6** - [LINK](#)

[TRB2M_R_00.07.06.5](#) | 2024.02.21

- Global changelog for **R_00.07.06.5** - [LINK](#)

[TRB2M_R_00.07.06.3](#) | 2024.01.17

- **New**
  - Initial firmware release