



ADK INSTRUMENTS
Where Technology Exists

MODEMS ROUTERS





ADK INSTRUMENTS
Where Technology Exists

Setting Standards, Today And Tomorrow



We set new principles in client experience and aim to create future-ready products. We take great pride in our products, that reek of quality, and our industry-best personalized services.



We, at ADK Instruments, work on the most important things that an industrial enterprise needs, which include Industrial Measurement Tools. Our tools are designed with utmost precision, and are tested under rigorous conditions, in order to provide a one-stop, fuss-free solution to all our dear patrons.



All our products are meticulously crafted and manufactured, and that personal touch ensures that you never have to worry about the instrumental needs in your work domain.

ALL CATEGORIES



Air quality



Water
Quality



Measuring
Devices



Hydrology



Meteorology



Waste Water



Oceanography



Rugged Systems



Constructional Tools



Modems/Routers



Laboratory
Technology



Personal Tracking

HIGH VALUES

Our Success is not only due to the quality of our work. It's down to attitude, our approach and the way we treat our clients.

Focus

We Have A 100% Commitment To Making All Our Sites The Best They Can Possible Be, No Matter What It Takes To Get There.

Passion

Our Desire To Produce Good Work Runs Deep- That's What Lets Us Handle Every Project With Fresh Energy And Enthusiasm.

Empathy

Our Desire To Produce Good Work Runs Deep- That's What Lets Us Handle Every Project With Fresh Energy And Enthusiasm.



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TRB142- RS232

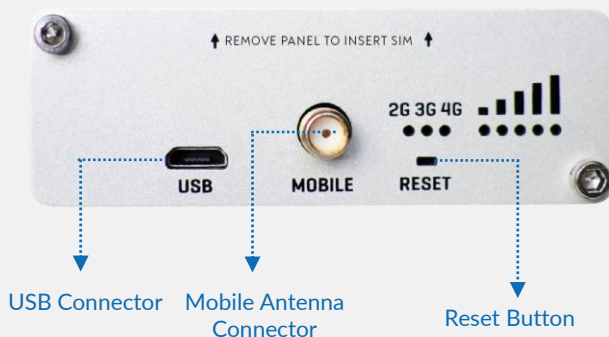
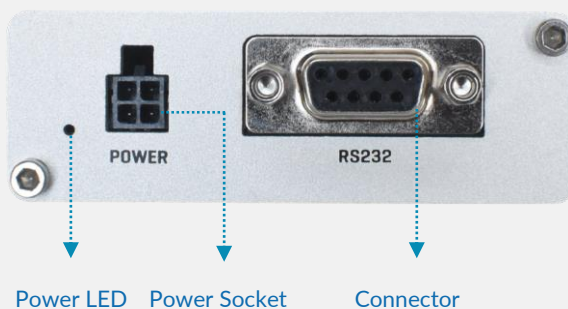
Description

TRB142 comes with a widely used RS232 interface for remote device management.

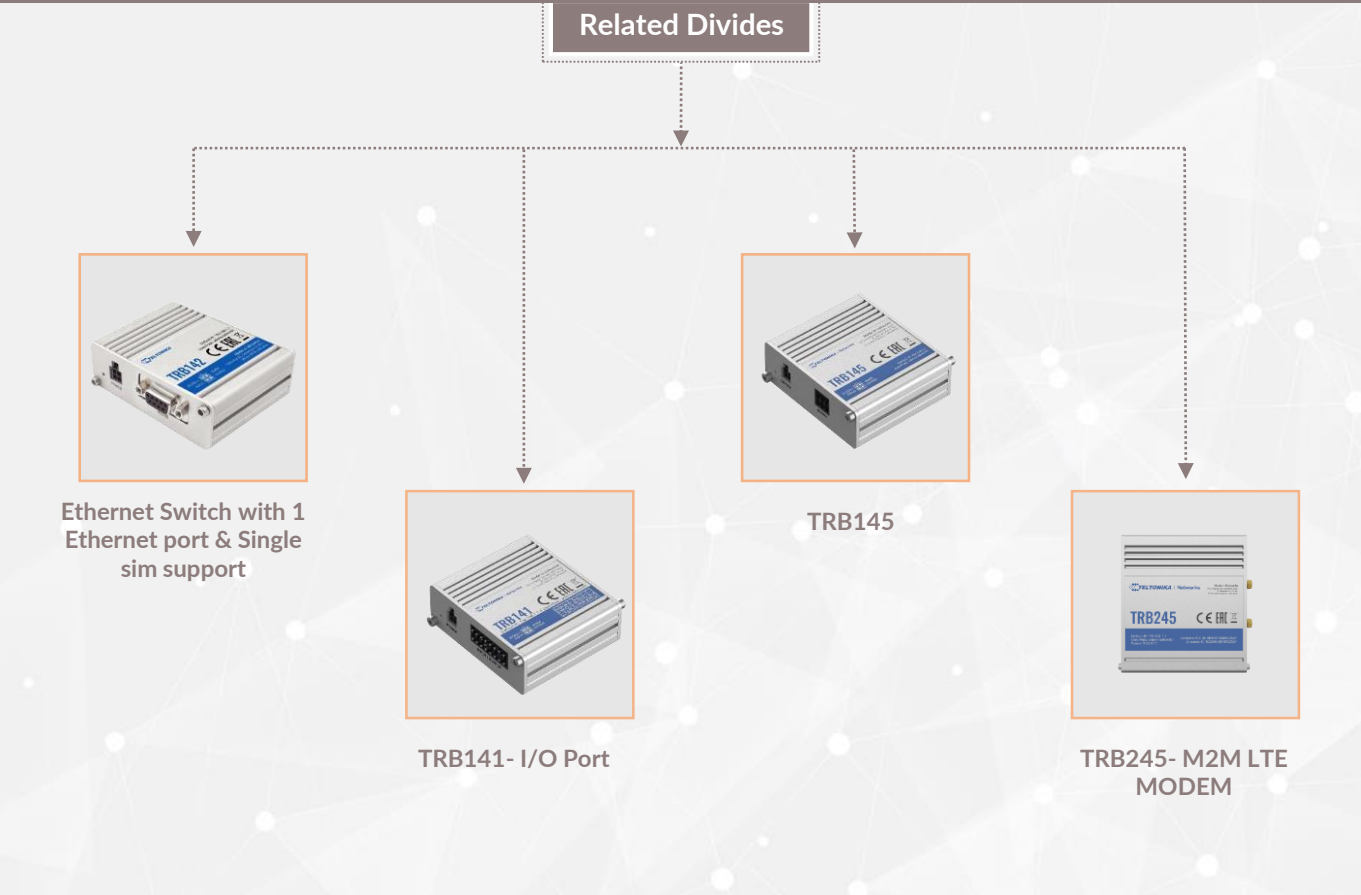
It is equipped with mission-critical LTE Cat 1 capabilities and software based on OpenWRT, hence offering a high degree of customization.

Just like the other TRB series products, it provides a wide range of software features such as SMS control, VPN, IPsec, Firewall, and FOTA support.

This gateway is durable, offers a wide range of power supply voltages, and is compatible with Teltonika Networks Remote Management System (RMS).



Specification	Description
MOBILE	
Mobile module	4G (LTE) – Cat 1 up to 10 Mbps, 3G – Up to 42 Mbps, 2G – Up to 236.8 kbps
Status	Signal strength (RSSI), SINR, RSRP, RSRQ, EC/IO, RSCP Bytes sent/received, connected band, IMSI, ICCID.
SMS/Call	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, Call utilities
USSD	Supports sending and reading Unstructured Supplementary Service Data messages
APN	Auto APN
NETWORK	
Routing	Static routing
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, SMTP, SSL v3, TLS, PPP, SSH, DHCP, SNMP, MQTT
Connection monitoring	Ping Reboot, Wget Reboot, Periodic Reboot, LCP and ICMP for link inspection
DHCP	Static and dynamic IP allocation
DDNS	Supported >25 service providers, others can be configured manually
SECURITY	
Mobile quota control	Set up custom data limits for SIM card
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, 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
ZeroTier	ZeroTier VPN
WireGuard	WireGuard VPN client and server support
MODBUS	
ID filtering	Respond to one ID in range [1;255] or any
Allow remote access	Allow access through WAN
DATA TO SERVER	
Protocol	HTTP(S), MQTT, Azure MQTT, Kinesis
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
SYSTEM CHARACTERISTICS	
CPU	ARM Cortex-A7 1.2 GHz CPU



NETWORKS SWITCHES



Description

ETHERNET SWITCH WITH 3 LAN PORT + 1 WAN PORT & DUAL-SIM SUPPORT (4G,3G,2G)

Ethernet, Digital, and Analogue I/O, RS232, RS485, GNSS (GPS), microSD, and USB interfaces allow for an incredible variety of industrial application scenarios.

It is equipped with connectivity redundancy via Dual SIM failover.

It comes with RutOS which is packed with advanced software features, like Modbus, SNMP, TR-069, NTRIP, MQTT, and multiple VPN services.

Specification	Description
MOBILE	
Mobile module	4G (LTE) – Cat 4 up to 150 Mbps, 3G – Up to 42 Mbps, 2G – Up to 236.8 kbps
SIM switch	2 SIM cards, auto-switch cases: weak signal, data limit, SMS limit, roaming, no network, network denied, data connection fail, SIM idle protection
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
WIRELESS	
Wireless mode	IEEE 802.11b/g/n, Access Point (AP), Station (STA)
WiFi security	WPA2-Enterprise - PEAP, WPA2-PSK, WEP, WPA-EAP, WPA-PSK; AES-CCMP, TKIP, Auto Cipher modes, client separation
SSID	SSID stealth mode and access control based on MAC address
Wireless Hotspot	Captive portal (Hotspot), internal/external Radius server, built in customizable landing page
WiFi security	WPA2-Enterprise - PEAP, WPA2-PSK, WEP, WPA-EAP, WPA-PSK; AES-CCMP, TKIP, Auto Cipher modes, client separation
ETHERNET	
WAN	1 x WAN port (can be configured to LAN) 10/100 Mbps, compliance IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX
LAN	3 x LAN ports, 10/100 Mbps, compliance IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX
SECURITY	
Authentication	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
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
SSTP	SSTP client instance support
ZeroTier	ZeroTier VPN
MODBUS	
ID range	Respond to one ID in range [1;255] or any
Allow Remote Access	Allow access through WAN
SYSTEM CHARACTERISTICS	
CPU	Atheros Wasp, MIPS 74Kc, 550 MHz
RAM	128 MB, DDR2
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/configuration from server
RMS	Update FW/configuration for multiple devices
Keep settings	Update FW without losing current configuration
LOCATION TRACKING	
GNSS	GPS, GLONASS, BeiDou, Galileo and QZSS
Coordinates	GNSS coordinates via WebUI, SMS, TAVL, RMS
INPUT/OUTPUT	
Input	1 x digital dry input (0 - 3 V), 1 x digital galvanically isolated input (0 - 30 V), 1 x analog input (0 - 24 V), 1 x Digital non-isolated input (on 4 pin power connector, 0 - 5 V detected as logic low, 8 - 30 V detected as logic high)
Output	1 x digital open collector output (30 V, 250 mA), 1 x SPST relay output (40 V, 4 A), 1 x Digital open collector output (30 V, 300 mA, on 4 pin power connector)

Output	1 x digital open collector output (30 V, 250 mA), 1 x SPST relay output (40 V, 4 A), 1 x Digital open collector output (30 V, 300 mA, on 4 pin power connector)
USB	
Data rate	USB 2.0
Applications	Samba share, USB-to-serial
SD CARD	
Physical size	Micro SD
Applications	Samba share
OPERATING ENVIRONMENT	
Operating temperature	-40 °C to 75 °C
Operating humidity	10% to 90% non-condensing
REGULATORY & TYPE APPROVALS	
Operator	AT&T, Verizon
Vehicle	ECE R10 (E-mark), ECE R118

Related Divides



RUT200
Ethernet Switch with 1 LAN
port + 1



RUT240
Ethernet Switch with 1 LAN
port+1



RUT951
Ethernet Switch with 3 LAN
port+1 ,3G,2G)



Description

ETHERNET SWITCH WITH 1 ETHERNET PORT & SINGLE SIM SUPPORT (4G,3G,2G)

TRB140 is an ultra-small, lightweight, and energy-efficient industrial gateway equipped with mission-critical LTE Cat 4 capabilities, Gigabit Ethernet interface, digital Inputs/Outputs, and micro-USB port.


Because of its compact design, this product is perfect for projects and applications where a sole gadget requires reliable internet connectivity.

TRB140 is specially engineered to be used in the industrial sector and has a wide range of software security features, such as SMS control, Firewall, Open VPN, IPsec, Remote Management System (RMS), and FOTA support.


Specification	Description
MOBILE	
Mobile module	4G (LTE) – Cat 4 up to 150 Mbps, 3G – Up to 42 Mbps, 2G – Up to 236.8 kbps
Status	Signal strength (RSSI), SINR, RSRP, RSRQ, EC/IO, RSCP Bytes sent/received, connected band, IMSI, ICCID.
USSD	Supports sending and reading Unstructured Supplementary Service Data messages
Black/White list	Operator black/white list
Band management	Band lock, Used band status display
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 LAN
Multiple PDN	Possibility to use different PDNs for multiple network access and services (optional)
ETHERNET	
LAN	1 x RJ45 port, 10/100/1000 Mbps, supports auto MDI/MDIX crossover
NETWORK	
Routing	Static routing
Connection monitoring	Ping Reboot, Wget Reboot, Periodic Reboot, LCP and ICMP for link inspection
Firewall	Port forwards, traffic rules, custom rules
DHCP	Static and dynamic IP allocation
QoS / Smart Queue Management (SQM)	Traffic priority queuing by source/destination, service, protocol or port
Mobile module	4G (LTE) – Cat 4 up to 150 Mbps, 3G – Up to 42 Mbps, 2G – Up to 236.8 kbps
SMS/Call	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, Call utilities
USSD	Supports sending and reading Unstructured Supplementary Service Data messages
SECURITY	
Authentication	Pre-shared key, digital certificates, X.509 certificates
Firewall	Pre-configured firewall rules can be enabled via the WebUI, unlimited firewall configuration via CLI; NAT; NAT-T
Mobile quota control	Set up custom data limits for SIM card
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
GRE	GRE tunnel
VPN	
OpenVPN	Multiple clients and a server can run simultaneously, 12 encryption methods
IPsec	IKEv1, IKEv2, supports up to 5 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, L2TPv3 support
ZeroTier	ZeroTier VPN
WireGuard	WireGuard VPN client and server support
MODBUS	
MODBUS TCP SLAVE	
ID filtering	Respond to one ID in range [1;255] or any
Allow remote access	Allow access through WAN
Custom registers	MODBUS TCP custom register block, which allows to read/write to a file inside the router, and can be used to extend MODBUS TCP slave functionality
MODBUS TCP MASTER	
Supported functions	01, 02, 03, 04, 05, 06, 15, 16

MONITORING & MANAGEMENT	
WEB UI	HTTP/HTTPS, status, configuration, FW update, CLI, troubleshoot, system log, kernel log
FOTA	Firmware update from sever, automatic notification
SSH	SSH (v1, v2)
MQTT	MQTT Broker, MQTT publisher
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
SYSTEM CHARACTERISTICS	
CPU	ARM Cortex-A7 1.2 GHz CPU
RAM	128 MB (50 MB available for userspace)
FLASH storage	512 MB (200 MB available for userspace)
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
FIRMWARE CUSTOMIZATION	
Operating system	RutOS (OpenWrt based Linux OS)
Supported languages	Busybox shell, Lua, C, C++
Output control	HTTP POST/GET, Schedule
I/O juggler	Allows to set certain I/O conditions to initiate event
POWER	
Connector	4 pin industrial DC power socket
PHYSICAL INTERFACES (PORTS, LEDS, ANNTENAS, BUTTONS, SIM)	
Ethernet	1 x RJ45 port, 10/100/1000 Mbps
I/Os	2 x Configurable I/O pins on 4 pin power connector (I/O not available in TRB140*2****)
Output control	HTTP POST/GET, Schedule


Related Divides




TSW100
Ethernet Switch with 4 POE Ethernet Ports and 1 Ethernet Port




TSW200
Ethernet Switch with 8 POE Ethernet Ports and 2 SFP Ports




TSW101
Ethernet Switch with 4 POE powered Ethernet Ports and 1 Ethernet Port



TSW210
Ethernet Switch with 8 POE Ethernet Ports and 2 SFP Ports



TSW110
Ethernet Switch with 5 Ethernet ports



ETHERNET SWITCH WITH 6 PORTS(4 LAN+1 WAN+1 SFP) & DUAL-SIM SUPPORT(4G,3G,2G)




ADK INSTRUMENTS

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