

Product Overview



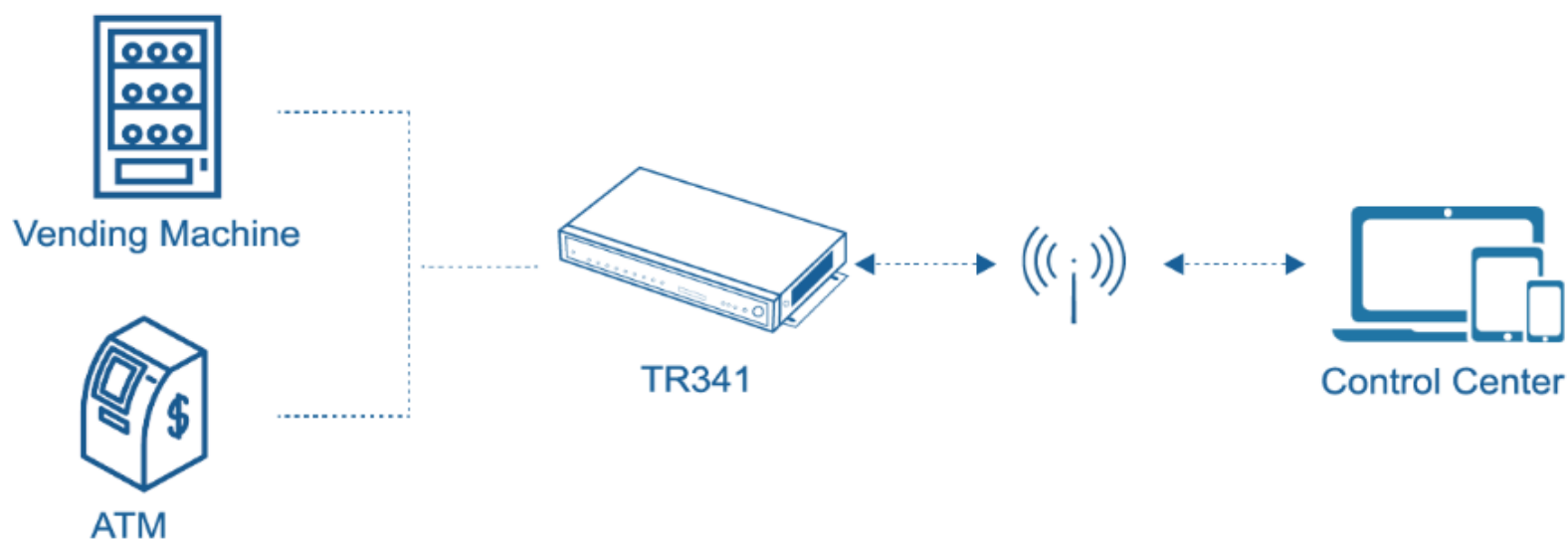
TR341 Series Router is a type of industrial cellular router, which adopts high-powered industrial 32-bits CPU, with multi-layer software detection and hardware protection mechanism to ensure reliability and stability of the device. It supports worldwide carrier LTE 4G CAT6/CAT4/3G/2G cellular network FDD-LTE, TDD-LTE, and WCDMA, EVDO, TD-SCDMA, EDGE, CDMA 1X and GPRS/GSM. With rich interfaces, such as Dual SIM (Option), RS232, RS485, 5 Ethernet Ports, WiFi, and GPS(Optional), to connect with many kinds of devices for your IoT applications.

TR341 Series Router supports multiple network and industrial protocols, like TCP, UDP, Modbus RTU, Modbus TCP, Modbus Gateway, MQTT, etc., and it's ideal for IoT (Internet of Things) and M2M (Machine to Machine) applications, such as Intelligent Transportation, Smart Grid, Oil and Gas, ATM, Vending Machine, Agricultural Irrigation, Environmental Protection, Industrial Automation, Energy Saving, Smart Home, etc.

Key Features

1. DSSM (Dual SIM on single module, option) available, support failover mode to ensure the connection reliability
2. 1-WAN, 4-LAN(10/100M), 1-RS232, 1-RS485, 1-WIFI, 1-GPS(Optional)
3. 4G/3G/PPPoE/DHCP and Static address connection mode, switchover between wired and wireless connectivity
4. Support MQTT, Modbus RTU, Modbus TCP protocols
5. APN/VPDN to ensure the security of data transmission
6. Multiple VPN protocols, IPSec, L2TP, PPTP, GRE and OpenVPN
7. TCP/IP, UDP, HTTP protocols
8. DHCP server, DHCP binding MAC address, DDNS, Firewall, NAT, DMZ host, QoS, Traffic Analysis, Real-time display of data transfer rate
9. SPI Firewall, DoS attack, VPN traversal, Access Control, Port Mapping, DMZ Mapping, Access Control List(ACL), IP-MAC binding and Clone function
10. Heartbeat link detection, offline automatic reconnection
11. Hardware and software auto inspection technology, enable operation fault auto repairing
12. Status query of system, network connection, routing
13. Telnet, web, SSH configurations
14. Local system log, remote log, serial port output log
15. Sending SMS via web UI
16. Support DMP (Device Management Platform)¹ for Remote configuration and management

Application Diagram



Specifications

Cellular Interfaces

Antenna Connector	1 × 50 Ω SMA Female
SIM Slot	1, or 2 (For DSSM)
ESD Protection	15KV

Ethernet Interface

Ports	5-RJ45 (1-WAN, 4-LAN or 5-LAN)
Data Rate	10/100 Mbps (Auto-Sensing), Auto MDI/MDIX
Magnet Isolation	1.5KV

Serial Interface

Connector	Terminal block, 5-pin 3.5 mm female socket with lock
Ports	1-RS232, 1-RS485
Baud Rate	300bps to 230400bps
ESD protection	8KV for RS232, 15KV for RS485

Wi-Fi

Antenna Connector	1 × 50 Ω SMA Male
Standard	IEEE 802.11b/g/n, supporting AP and Client modes
Transmission Rate	IEEE802.11b/g: Up to 54Mbps, IEEE802.11n: Up to 300Mbps
Security	Open, WPA, WPA2, WPA/WPA2 Enterprise, Radius
Tx Power	18dBm (11g), 21dBm (11b)
Rx Sensitivity	<-72dBm@54Mbps

GPS (Optional)

Module	Built-in independent GPS Module
Antenna Connector	1 × 50 Ω SMA Female

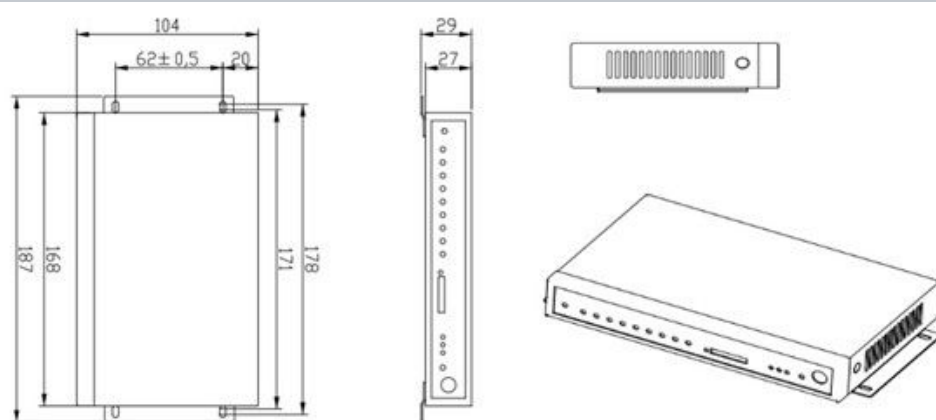
Power Supply and Consumption

Connector	Plug in
Standard Power	DC 12V/1.5A
Input Voltage	5-35 VDC
Power Consumption	280 ~ 330mA@12VDC
Idle Consumption	190 ~ 240mA@12VDC

Software

Network Protocols	PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DNS, DDNS, HTTP, ARP, QoS, SNTP, Telnet, VLAN, SSH, etc.
Serial Port	MQTT, Transparent (TCP Client/Server, UDP Client/Server), Modbus Gateway (Modbus RTU to Modbus TCP)
VPN Tunnel	IPsec/PPTP/L2TP/GRE/OpenVPN

Dimensions(mm)



Firewall Management	ACL/DMZ/Port Mapping/MAC Binding Web, CLI, SMS, Cloud DMP (Device Management Platform)
Reliability	WAN Failover, Dual SIM Backup, Hardware & Software Watchdog
Secondary Development	OpenWrt based, support Python, LUA

Physical Characteristics

Ingress Protection	IP30
Housing & Weight	Metal 530 g(1.17lbs), without accessories
Dimensions	168 x 104 x 27mm (6.61 x 4.09 x 1.06 in)
Mounting	Desktop, Wall Mount

Environmental

Operating Temperature	-35°C to +75°C (-31°F to +167°F)
Storage Temperature	-40°C to +80°C (-40°F to +176°F)
Relative Humidity	0% to 93% (non-condensing) at 25°C/77°F
Ethernet Isolation	1.5 kV RMS

Others

Reset Button	1-RESET
LED Indicators	1-POWER, 1-WAN, 1-WiFi, 1-ALARM, 1-ONLINE, 1-SYSTEM, 4-LAN, 3-Signal Strength
Built-in	Watchdog, RTC, Timer
EMC	IEC 61000-4-2 Level 3, IEC 61000-4-3 Level 4 IEC 61000-4-4 Level 3, IEC 61000-4-5 Level 4 IEC 61000-4-6 Level 3, IEC 61000-4-11 Level 4
Warranty Period	Standard: 12 Months Extended: 2-5 Years ²

Standard Package Content

TR341 Router
Power Adapter(DC 12V/1.5A, EU/US/UK/AU plug optional)
RP-SMA WIFI Antenna (19.5cm, 5dBi)
Mag-mount Cellular Antenna (SMA Male, 1 meter, 5dBi)
RS232 Cable (DB9 Female, 1 meter)
Ethernet Cable(1 meter)
5-Pin Terminal Block
Quick Start Guide(Printed)

Order Information

Model	Frequency Band ³
TR341-LF	4G LTE CAT 6 EMEA&APAC: B1/B3/B5/B7/B8/B20/B28 NA: B2/B4/B5/B7/B12/B13/B25 4G LTE CAT 4 EMEA: 1/B3/B5/B7/B8/B20/B38/B40/B41 ANZ/LATAM: B1/B3/B5/B7/B8/B28 NA: B2/B4/B5/B12/B13/B14
TR341-W	HSPA/UMTS/WCDMA 900/2100MHz, or 850/1900/2100MHz Global: 800/850/900/1900/2100

Note:

- There is license fee for DMP.
- Price of extended warranty will be different.
- If you couldn't find the frequency band for your regions or have any questions, please contact Bivocom sales representatives for more information.
- From Sep 1, 2019, the RS485 of TR321 is enabled as default feature.

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