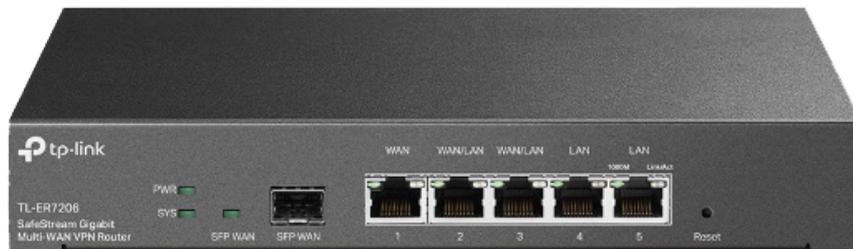**tp-link**

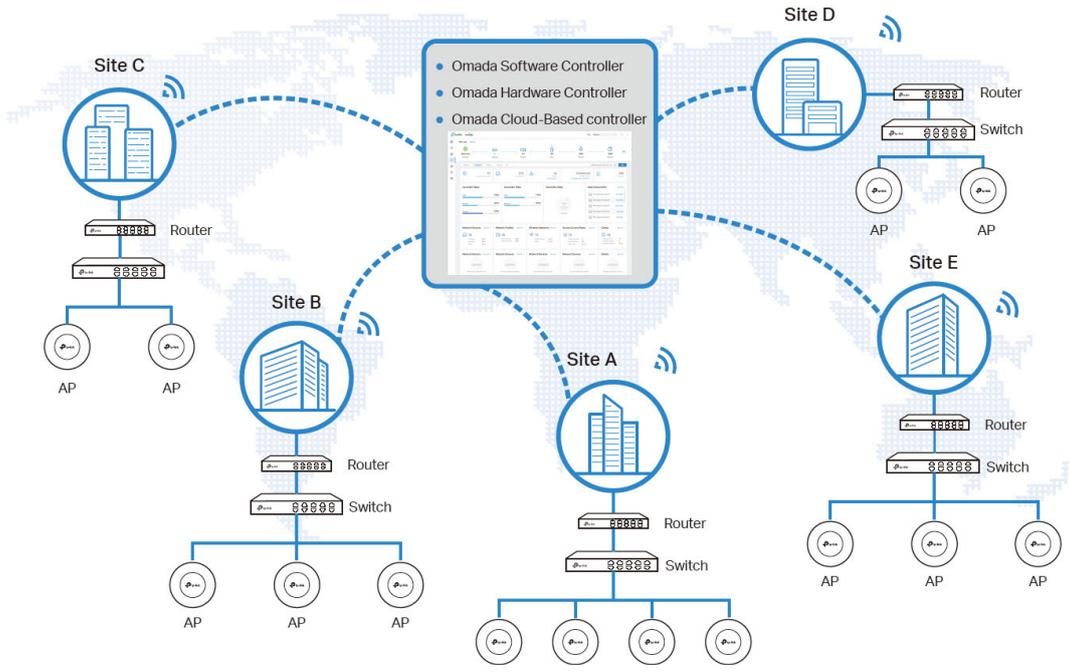# SafeStream Gigabit Multi-WAN VPN Router

MODEL: TL-ER7206

Highlights

- 64-bit dedicated dual-core processor and 512MB DDR3 high-speed memory for outstanding performance
- Equipped with 1 Gigabit SFP WAN port, 1 Gigabit RJ45 WAN port, 2 Gigabit RJ45 WAN/LAN ports and 2 Gigabit LAN ports
- Supports multiple VPN protocols including OpenVPN/ IPSec/ PPTP/ L2TP/ L2TP over IPSec, helping users to establish VPN connections more flexibly
- Supports up to 100 IPsec VPN tunnels with VPN engine
- Captive portal provides a convenient method for guest authentication
- Abundant features including load balance, bandwidth control and access control
- Professional 4 kV lightning protection keeps your investments as safe as possible

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Omada Solution

Hospitality
High Quality and Full Coverage Wi-Fi

Education
High-Density Wi-Fi

Retail
Social Marketing for O2O

Office
Wireless and Wired Connections

Catering
Full Wi-Fi Coverage in High-Density Environment

Software Defined Networking (SDN) with Cloud Access

Omada Software Defined Networking (SDN) platform integrates network devices, including access points, switches and gateways, providing 100% centralized cloud management. Omada creates a highly scalable network——all controlled from a single interface. Seamless wireless and wired connections are provided, ideal for use in hospitality, education, retail, offices, and more.

- Omada Software Controller
- Omada Hardware Controller
- Omada Cloud-Based controller

Site C
Router
AP AP

Site D
Router
Switch
AP AP

Site B
Router
Switch
AP AP AP

Site A
Router
Switch

Site E
Router
Switch
AP AP AP

Higher Efficiency

Centralized Cloud Management

Zero-Touch Provisioning

AI-Driven Technology

Auto Channel Selection and Power Adjustment

Multi-Tenant Privilege Assignment

Easy and Intelligent Monitoring

Higher Security

Separate Management and User Data

Abundant Security Functions

Higher Reliability

99.99% SLA Availability

Reliable Connections with High-Density Clients

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Hassle-Free Centralized Cloud Management
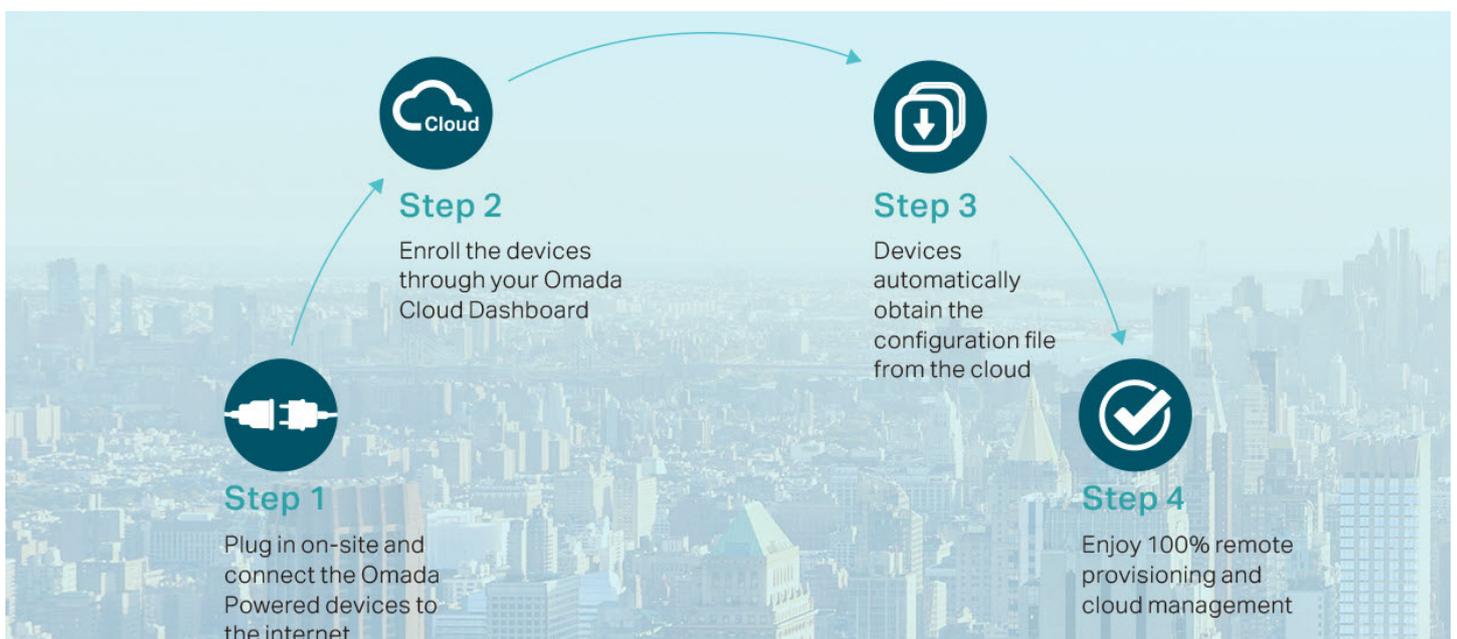
100% centralized cloud management of the whole network from different sites——all controlled from a single interface anywhere, anytime.

Omada Cloud-Based Controller

No any additional hardware controller investment and installation on customer premises

Omada
Cloud Networking Solution

Site A | Site B | Site C

Unified Management from One Interface

Access Points
Switches
Gateways

Omada Hardware Controller

On-premises controller with no need to run a PC/server

Omada Software Controller

On-premises controller with no charging for hardware

- ✓ No additional training needed
- ✓ Unlimited scalability
- ✓ Batch management
- ✓ Devices still work even when not connected to the Cloud

Zero-Touch Provisioning for Efficient Deplyment [1]

Omada zero-touch provisioning allows remotely deployment and configuration of multi-site networks, so there's no need to send out an engineer for on-site configuration. The Omada Cloud ensures efficient deployment with lower costs.

Cloud

Step 2
Enroll the devices through your Omada Cloud Dashboard

Step 3
Devices automatically obtain the configuration file from the cloud

Step 1
Plug in on-site and connect the Omada Powered devices to the internet

Step 4
Enjoy 100% remote provisioning and cloud management

1. Zero-Touch Provisioning is supported when using Omada Cloud-Based Controller

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AI-Driven Technology for Stronger Performance and Easy Network Maintenance

Intelligent Network Analysis, Warning, and Optimization*

▶ Analyzes potential network problems and sends optimization suggestions for higher network efficiency

▶ Locates network faults, warns and notify users, and generates solutions to reduce network risk

Overall network status

Warning

Optimization

*Intelligent Network Analysis, Warning, and Optimization are being developed and are scheduled to be released in 2020
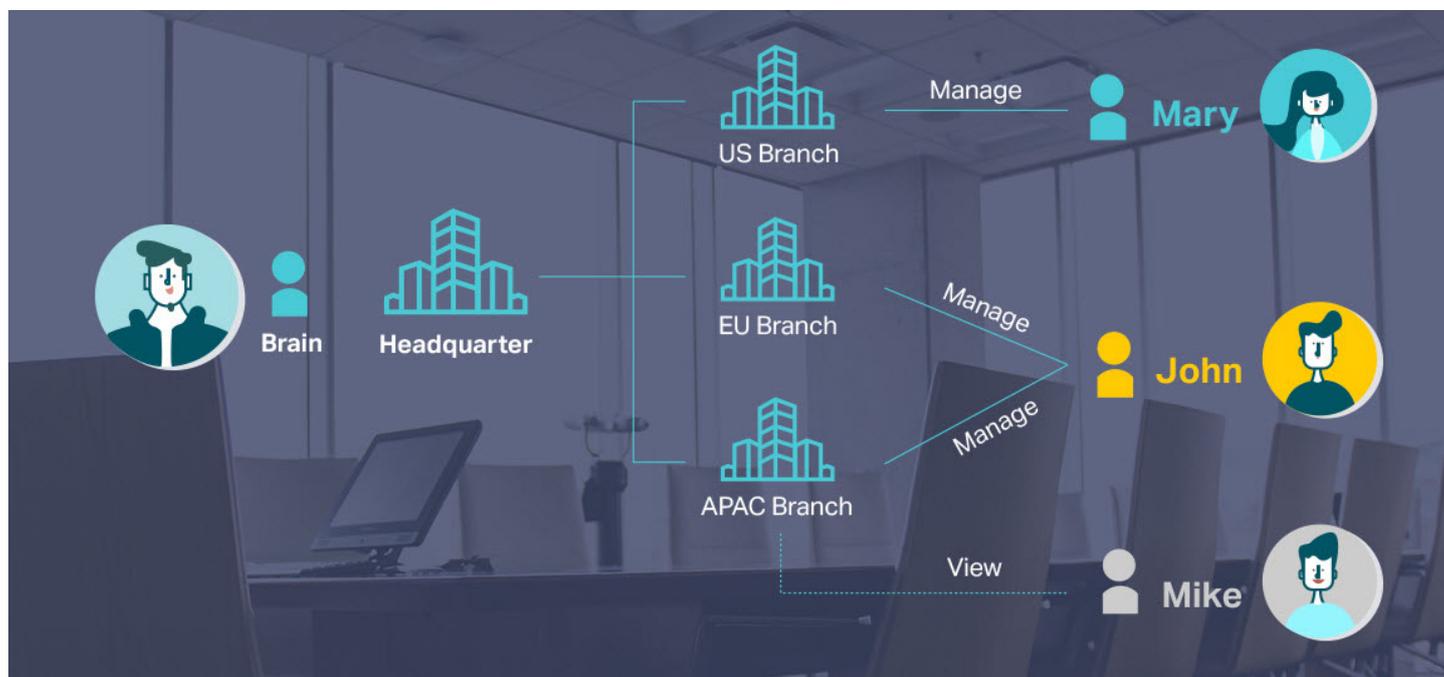
Auto Channel Selection and Power Adjustment

Provides powerful wireless performance while greatly reducing Wi-Fi interference by automatically adjusting the channel settings and transmission power levels of neighboring APs in the same network.
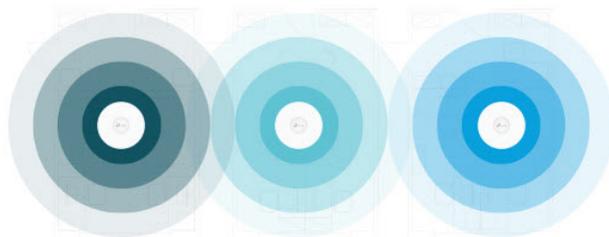
● Channel 1   ● Channel 11   ● Channel 6

Assign Different Management Roles

Multi-user privilege assignment is available to increase management efficiency and security. Multi-person management, multi-level permissions, and the ability to add admins as needed, enable flexible network operation and maintenance.

US Branch — Manage — Mary

Brain   Headquarter

EU Branch — Manage — John
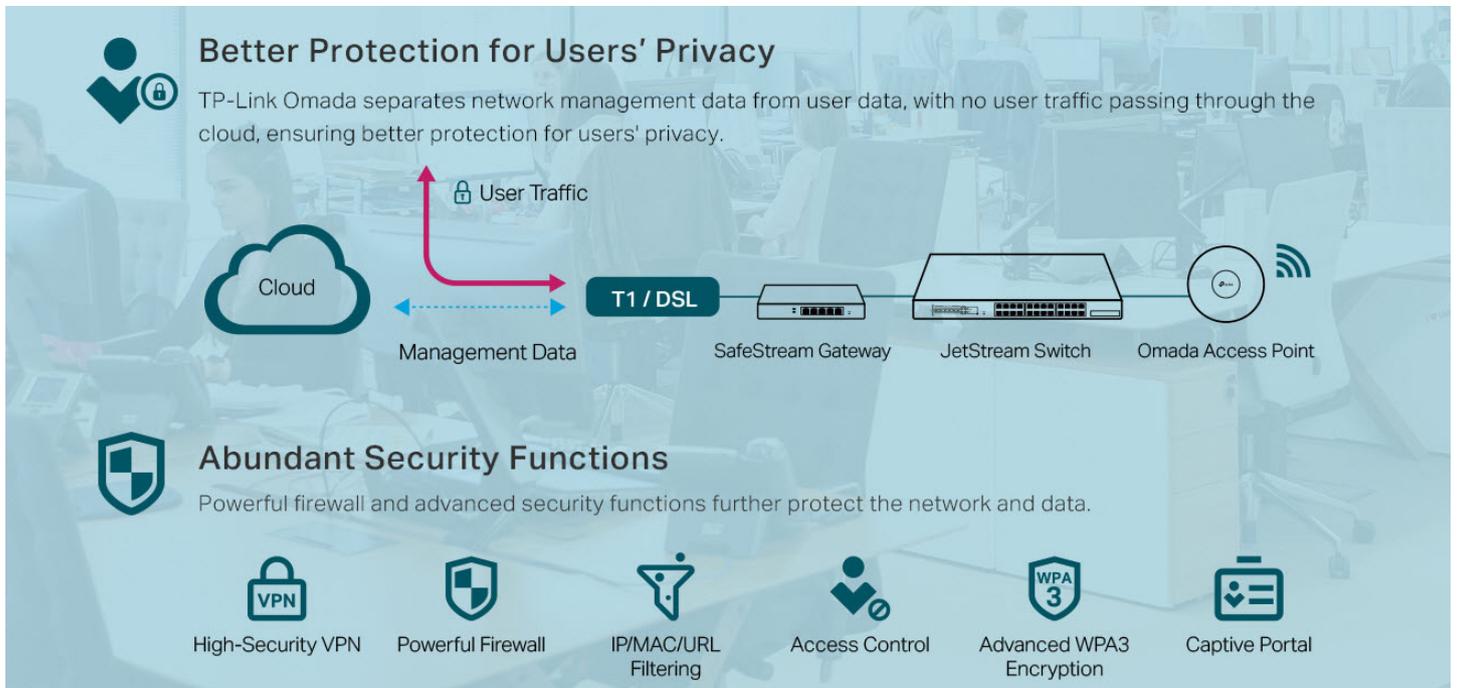
APAC Branch — Manage

View — Mike

Easy and Intelligent Network Monitoring

The easy-to-use dashboard makes it easy to see your real-time network status; check network usage and traffic distribution; receive network condition logs, abnormal event warnings, and notifications; or even track key data for better business results. Network topology helps IP admins quickly see and troubleshoot connection at a glance.

Network Status Report

Check the Traffic Distribution

Network Topology at a Glance

Comprehensive Protection for the Whole Network

Better Protection for Users' Privacy

TP-Link Omada separates network management data from user data, with no user traffic passing through the cloud, ensuring better protection for users' privacy.

User Traffic

Cloud

Management Data

T1 / DSL

SafeStream Gateway

JetStream Switch

Omada Access Point

Abundant Security Functions

Powerful firewall and advanced security functions further protect the network and data.

High-Security VPN

Powerful Firewall

IP/MAC/URL Filtering

Access Control

Advanced WPA3 Encryption

Captive Portal

Multiple Factors Guarantee Higher Reliability

Higher reliability of cloud service is guaranteed with 99.99% SLA availability, 24/7 automated fault detection, geographically isolated backup servers, and reliable product quality. Your network functions even if management traffic is interrupted.

99.99%
SLA Availability

24/7
Automated Fault Detection

Geographically Isolated
Back-Up Servers

Reliable Products
High Quality

Higher Reliability

Reliable Connections Even with High-Density Clients

Equipped with enterprise chipsets, dedicated antennas, advanced RF functions, auto channel selection, and power adjustment, Omada Wi-Fi 6 and Wi-Fi 5 APs have high concurrency capacities for remarkable performance in high-density environments.
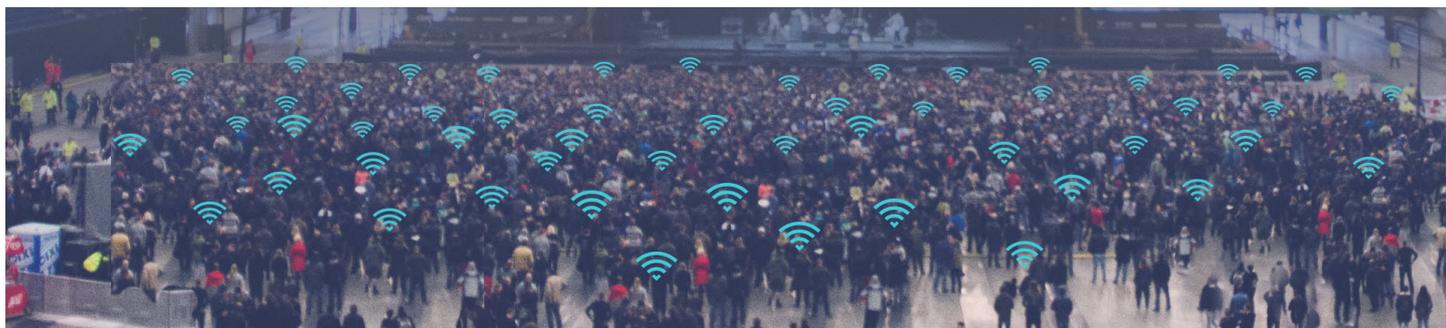
Product Features

Superior Hardware

With a 64-bit dual-core network processor and 512MB DDR3 memory, TL-ER7206 is able to handle multiple tasks while maintaining excellent performance and greater reliability.

Intelligent Bandwidth Allocation

The TL-ER7206 features 1 SFP WAN port, 1 Gigabit WAN port, and 2 WAN/LAN ports, allowing one device to meet multiple requirements. Intelligent Load Balancing distributes data streams according to the bandwidth proportion of each WAN port to make the most of multi-line broadband. IP-based Bandwidth Control and Session Limit functions give network administrators the power to flexibly manage how their bandwidth is used.

Peace of Mind Whatever the Weather

Professional-standard lightning protection prevents electrical surges from penetrating your network equipment, instead discharging them harmlessly into the Earth. Designed to withstand 4 kV of electricity when well-grounded, this router ensures your network investments remain as safe as possible from the wrath of Mother Nature.

Specifications

Model	TL-ER7206
Product Picture	
Product Description	Gigabit Multi-WAN VPN Router
Hardware — Standards and Protocols	IEEE 802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3z, IEEE 802.3x, IEEE 802.1q, TCP/IP, DHCP, ICMP, NAT, PPPoE, NTP, HTTP, HTTPS, DNS, IPSec, PPTP, L2TP, SNMP
Hardware — Interface	1 Gigabit SFP Port 1 Gigabit WAN port 2 Gigabit LAN/WAN ports 2 Gigabit LAN port
Hardware — Network Media	10BASE-T: UTP category 3, 4, 5 cable (Max 100 m) EIA/TIA-568 100Ω STP (Max 100 m) 100BASE-TX: UTP category 5, 5e cable (Max 100 m) EIA/TIA-568 100Ω STP (Max 100 m) 1000BASE-T: UTP category 5, 5e, 6 cable (Max 100 m)
Hardware — Button	Reset button
Hardware — Power Supply	100–240 VAC, 50/60 Hz
Hardware — Flash	4MB SPI + 128 MB NAND
Hardware — DRAM	512 MB
Hardware — LED	PWR, SYS, SFP WAN, WAN (Speed, Link/Act), LAN (Speed, Link/Act)
Hardware — Surge Protection	4 kV surge protection
Hardware — Dimensions (W x D x H)	8.9 × 5.2 × 1.4 in (226 × 131 × 35 mm)

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Model		TL-ER7206
SDN Support	Hardware Controller (OC200/OC300)	Automatic Device Discovery Intelligent Network Monitoring Abnormal Event Warnings Unified Configuration Reboot Schedule Captive Portal Configuration ZTP (Zero-Touch Provisioning)[1]
	Software Controller	
	Cloud-Based Controller	
Performance	Concurrent Session	150,000
	New Sessions /Second	5,500
	Static IP NAT Throughput (Upload / Download)	940.3 Mbps / 940.2 Mbps
	DHCP NAT Throughput (Upload / Download)	940.3 Mbps / 940.4 Mbps
	PPPoE NAT Throughput (Upload / Download)	939.7 Mbps / 937.9 Mbps
	L2TP NAT Throughput (Upload / Download)	918.0 Mbps / 917.9 Mbps
	PPTP NAT Throughput (Upload / Download)	918.9 Mbps / 914.7 Mbps
	66 Byte Packet forwarding rate (Upload / Download)	486,918 pps / 488,372 pps
	1,518 Byte Packet forwarding rate (Upload / Download)	81,274 pps / 81,274 pps
	IPSec VPN Throughput (AES256)	291.6 Mbps
	L2TP VPN Throughput	Unencrypted: 1360.3 Mbps Encrypted: 202.3 Mbps
	PPTP VPN Throughput	Unencrypted: 1379.3 Mbps Encrypted: 115.6 Mbps
Basic Functions	WAN Connection Type	Static IP Dynamic IP PPPoE PPTP L2TP
	DHCP	DHCP Server DHCP Address Reservation Multi-IP Interfaces[2] Multi-Net DHCP[1]
	MAC Clone	Modify WAN/LAN MAC Address[3]
	IPTV	IGMP v2/v3 Proxy
	IPv6	Developing[4]
	VLAN	802.1Q VLAN

1. Zero-Touch Provisioning is supported only when using Omada Cloud-Based Controller.
2. Multi-IP Interfaces and Multi-Net DHCP are supported only in Controller Mode.
3. LAN MAC Address can be modified only in Standalone Mode.
4. IPv6 is being developed and will be updated in the following software versions.

Model		TL-ER7206
Transmission	Load Balance	Intelligent Load Balance Application Optimized Routing Link Backup (Timing[1], Failover) Online Detection
	NAT	One-to-One NAT[2] Multi-Net NAT Virtual Server Port Triggering[2] NAT-DMZ FTP/H.323/SIP/IPSec/PPTP ALG, UPnP
	Routing	Static Routing Policy Routing
	Session Limit	IP-based Session Limit
	Bandwidth Control	IP-based Bandwidth Control
VPN	IPSec VPN	100 IPSec VPN Tunnels LAN-to-LAN, Client-to-LAN Main, Aggressive Negotiation Mode DES, 3DES, AES128, AES192, AES256 Encryption Algorithm IKE v1/v2[3] MD5, SHA1 Authentication Algorithm NAT Traversal (NAT-T) Dead Peer Detection (DPD) Perfect Forward Secrecy (PFS)
	PPTP VPN	PPTP VPN Server 10 PPTP VPN Clients 50 Tunnels PPTP with MPPE Encryption
	L2TP VPN	L2TP VPN Server 10 L2TP VPN Clients 50 Tunnels L2TP over IPSec
	OpenVPN[4]	OpenVPN Server 10 OpenVPN Clients 50 OpenVPN Tunnels
Security	Attack Defense	TCP/UDP/ICMP Flood Defense Block TCP Scan (Stealth FIN/Xmas/Null) Block Ping from WAN
	Filtering	Web Group Filtering[5] URL Filtering Web Security[5]
	ARP Inspection[6]	Sending GARP Packets ARP Scanning IP-MAC Binding
	Access Control	Source/Destination IP Based Access Control

1. The Timing mode in Link Backup is supported only in Standalone Mode.
2. One-to-One NAT and Port Triggering are only supported only in Standalone Mode.
3. IKE v2 is supported only in Controller Mode.
4. OpenVPN is supported only in Controller Mode.
5. Web Group Filtering and Web Security are only supported only in Standalone Mode.
6. ARP Inspection is supported only in Standalone Mode.

Model		TL-ER7206
Authentication	Web Authentication	No Authentication Simple Password[1] Hotspot (Local User / Voucher[1] / SMS[1] / Radius[1]) External Radius Sever External Portal Sever[1] Facebook[1]
Management	Service	Dynamic DNS (Dyndns, No-IP, Peanuthull, Comexe)
	Maintenance	Web Management Interface Remote Management Export & Import Configuration SNMP v1/v2c/v3[2] Diagnostics (Ping & Traceroute)[3] NTP Synchronize[3] Syslog Support
Others	Certification	CE, FCC, RoHS
	Package Contents	TL-ER7206, Power Cord, Quick Installation Guide
	System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7/8/8.1/10 MAC OS, NetWare, UNIX or Linux
	Environment	Operating Temperature: 0 °C to 40 °C (32 °F to 104 °F) Storage Temperature: -40 °C to 70 °C (-40 °F to 158 °F) Operating Humidity: 10% to 90% non-condensing Storage Humidity: 5% to 90% non-condensing

1. The following web authentication methods are supported only in Controller Mode: Simple Password, Voucher, SMS, Radius, External Portal Sever, and Facebook.
2. SNMP v3 is supported only in Controller Mode.
3. Diagnostics (Ping & Traceroute) and NTP Synchronize are supported only in Standalone Mode

Ordering Information

Host Router

Model	Description
TL-ER7206	Gigabit Multi-WAN VPN Router

SFP/SFP+ Modules

Model	Description
TL-SM311LS	Gigabit SFP module, Single-mode, LC interface, Up to 20km distance
TL-SM311LM	Gigabit SFP module, Multi-mode, LC interface, Up to 550m distance
TL-SM321A	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 20 km
TL-SM321A-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 2 km
TL-SM321B	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 20 km
TL-SM321B-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 2 km

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