



AX1800 Dual-Band WiFi 6 Gigabit Dual-WAN VPN SMB Router

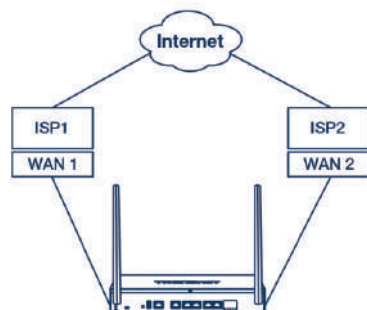
TEW-929DRU (v1.0R)

- Dual-WAN ports support load-balancing and fail-over modes
- 1x 2.5G LAN port, 2 x Gigabit LAN ports, 1 x RJ-45 console port, 1 x USB 2.0 share port
- SSL, IPsec, PPTP, and L2TP w/IPsec VPN support
- IEEE 802.1Q inter-VLAN routing
- Two concurrent WiFi bands maximize device networking speeds
- Dual Band support: 1201Mbps (5GHz) / 574Mbps (2.4GHz)
- Pre-encrypted WiFi for your convenience
- Wireless client isolation
- Web browser and CLI management
- Online firmware notification and upgrade
- QoS for VoIP and media streaming applications
- Deep Packet Inspection traffic monitoring
- Advanced web content filtering service powered by Bark®
- Remote cloud management with TRENDnet Hive (Additional fee applies)
- NDAA / TAA compliant (U.S. and Canada only)

TRENDnet's AX1800 Dual-Band Wireless Gigabit Dual-WAN VPN SMB Router, model TEW-929DRU, features two concurrent WiFi bands to maximize device networking speeds: two separate high performance 802.11ax networks (5GHz: 1201Mbps / 2.4GHz: 574Mbps). It features dual-WAN ports for load balancing or fail-over modes, and encrypted Virtual Private Network (VPN) access for remote users. Dual-WAN ports smooth network loading, minimize network downtime, and allow employees to access your network from the Internet—all with a single router. This WiFi 6 router comes equipped with a 2.5GBASE-T RJ-45 LAN port that provides higher gigabit speeds capable of up to 2.5Gbps over your existing Cat5e or better cabling. Providing faster throughput to your 2.5G compatible devices such as Network attached storage and high-speed WiFi 6 access points.

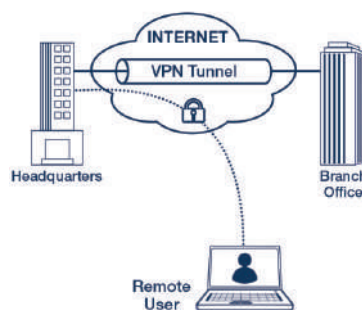
This wireless router features advanced management, QoS, VLAN, VPN, and other capabilities to ensure optimal performance, scalability, and protection of your network. Intelligently manage your offices' web access with our advanced content filtering tool powered by Bark®, increase employee productivity and finally take control of your internet.

Easily manage and configure TRENDnet's AX1800 Dual-Band WiFi Gigabit Dual-WAN VPN SMB Router remotely with TRENDnet Hive. TRENDnet Hive is a remote network cloud manager that reduces management time and cost. No additional hardware, server, or personal cloud is required with this WiFi 6 dual-WAN VPN router and TRENDnet's reliable cloud service.



Dual-WAN

Connect up to two separate WAN internet connections to efficiently load-balance traffic by distributing network traffic to the best available link, or configure for redundancy using the WAN fail-over mode



VPN

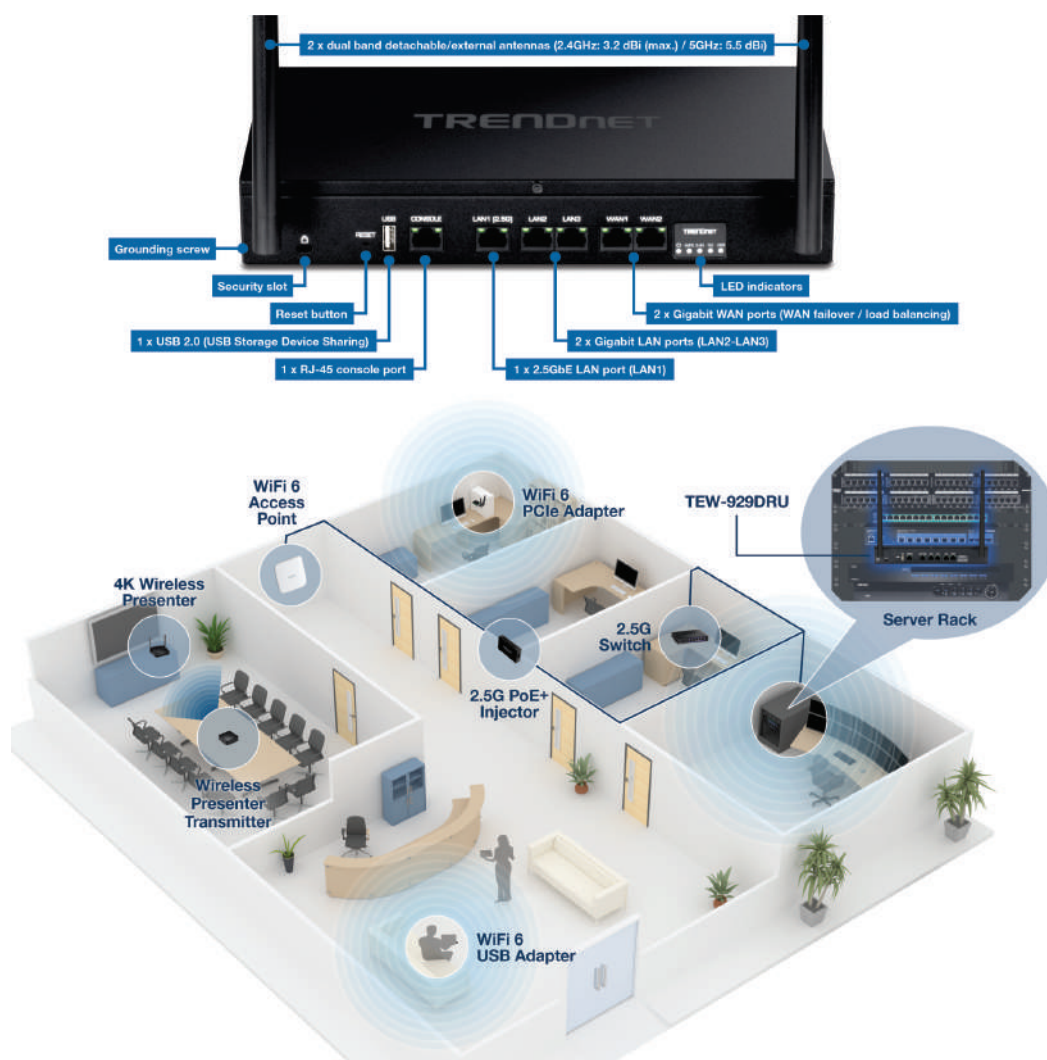
Create an encrypted VPN tunnel to access local area network resources remotely using IPSec, PPTP, L2TP w/ IPsec, and SSL VPN protocols.



AX1800 Dual-Band WiFi

Two concurrent WiFi bands maximize device networking speeds: two separate high performance 802.11ax networks 1201Mbps (5GHz) + 574Mbps (2.4GHz) bands

NETWORKING SOLUTION



FEATURES



Dual-WAN

Supports up to two separate WAN internet connections for load-balancing or fail-over modes



2.5G Support

Features a 2.5GBASE-T RJ-45 LAN port that delivers higher gigabit speeds capable of up to 2.5Gbps over your existing Cat5e or better cabling. Providing faster throughput to your 2.5G compatible devices such as Network attached storage and high-speed WiFi 6 access points.



Inter-VLAN Routing

Provides routing capabilities between VLANs



Wall Mountable

Wall mount ready



Hive Enabled (Optional)

Remotely monitor, manage, configure, and diagnose this WiFi 6 access point via TRENDnet's cloud service (Additional fee applies)



Ports

1x 2.5G LAN port, 2 x Gigabit LAN ports, 1 x RJ-45 console port, 1 x USB 2.0 share port



Pre-Encrypted Wireless

For your convenience the router's WiFi bands are pre-encrypted with their own unique WPA3 passwords



QoS

Intelligently prioritize voice, video, and other data traffic to improve network efficiency and overall performance



Online Firmware Updates

Automatic notification of firmware updates



Dual-Band WiFi 6

Two concurrent WiFi bands maximize device networking speeds: two separate high performance 802.11ax networks 1201Mbps (5GHz) + 574Mbps (2.4GHz) bands



VPN

Supports IPsec, PPTP, L2TP w/ IPsec, and SSL VPN protocols for encrypted remote access to local area network (LAN) resources over the internet



Rack Mount Design

Sturdy metal housing with rack mount brackets included



Management

Supports web browser (HTTP, HTTPS), CLI, SSH and Telnet management

SPECIFICATIONS

Standards

- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3ab
- IEEE 802.3bz (2.5GBASE-T)
- IEEE 802.1Q
- IEEE 802.1X
- IEEE 802.11a
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.11n (up to 400Mbps @ 256QAM)*
- IEEE 802.11ac (up to 867Mbps @ 256QAM)*
- IEEE 802.11ax Wi-Fi 6 (5GHz: up to 1201Mbps, 2.4GHz: up to 574Mbps @ 1024QAM)*

Device Interface

- 1 x 2.5GbE LAN port (LAN1)
- 2 x Gigabit LAN ports (LAN2-LAN3)
- 2 x Gigabit WAN ports (WAN failover / load balancing)
- 1 x USB 2.0 (USB Storage Device Sharing)
- 1 x RJ-45 console port
- Security slot
- Grounding screw
- Power switch
- Reset button
- LED indicators

Performance

- NAT (LAN-to-WAN) throughput: 900Mbps
- Routing performance: 900Mbps
- Maximum concurrent sessions: 32,768
- Maximum number of VLANs: 8 (ID: 1-4094)
- IPsec VPN (AES-256/SHA-256/LAN-to-LAN) throughput: 64Mbps
- SSL VPN (OpenVPN®) Throughput (Blowfish/SHA-1/Bridge): 12Mbps

Hive Cloud Management**

- Configure, monitor, and manage through the TRENDnet Hive Cloud Management Portal remotely via PC or Mac web browser
- Multi-device management
- Provisioning through scheduled batch firmware or configuration updates for multiple switches
- Event/hardware network monitoring (CPU/ memory utilization)
- Configure features such as interface IP address settings, VLANs, WiFi, VPN, WAN failover and load balancing, DMZ, port forward, and firewall access control settings through cloud management

Virtual Private Networking

- SSL VPN Server Mode (OpenVPN®) (Up to 10 tunnels)
- SSL VPN Client Mode (OpenVPN®)
- SSL (OpenVPN®) Encryption: BF-CBC, AES-128-CBC, AES-256-CBC
- SSL (OpenVPN®) HMAC Authentication: SHA1, SHA256
- SSL VPN Certificate: RSA
- IPsec VPN Server (Dynamic) / Site-to-Site (Up to 15 tunnels)
- IPsec Encryption: DES, 3DES, AES-128/256
- IPsec Authentication: MD5, SHA1, SHA2-256, Certificate: X.509v3
- IPsec Key Exchange: IKE: IKEv1/2, Main Mode, RSA, Pre-shared Key, DH Groups 1/2/5/14
- IPsec Protocols: ESP (Transport/Tunnel), PFS (Per DH Groups 1/2/5/14, DPD (Dead Peer Detection), Local/Remote ID: IP Address, FQDN (Fully Qualified Domain Name)
- IPsec NAT Traversal
- IPsec VPN failover support
- PPTP/L2TP VPN Server (Up to 10 tunnels)
- L2TP with IPsec VPN Server (Up to 8 tunnels shared with L2TP)
- PPTP/L2TP Encryption: MPPE 40-bit, 128-bit, IPsec
- PPTP/L2TP Authentication: MS-CHAPv1/2

Networking

- WAN Modes: NAT, Classical Routing
- NAT Modes: NAT, PAT (Port Address Translation), One-to-One NAT
- WiFi client bridge mode
- ISP IPv4 WAN Modes: DHCP, Static IP, PPPoE, PPTP, L2TP
- IPv4 WAN client ID and vendor class for DHCP, override/clone MAC address
- ISP IPv6 WAN Modes: Static, Auto-configuration (SLAAC/DHCPv6), Link-Local, PPPoE
- IPv6 LAN Modes: SLAAC, Stateless/Stateful DHCPv6
- VLAN ID assignment on WAN interface
- Routing: Static, RIPv1/v2, OSPFv1/2, routing policies (Up to 20 entries)
- Static ARP entries (Up to 32 entries)
- Static host entries (Up to 32 entries)
- Inter-VLAN Routing (Up to 8 VLANs, 8 IP interfaces)
- SSID per VLAN assignment
- DHCP Server/Relay
- DHCP static leases/reservation
- Dynamic DNS: dynu.com, freedns.afraid.org, changeip.com, ydns.io, duckdns.org, no-ip.com
- WAN Failover
- WAN Load Balancing

Access Control

- Wireless encryption: WPA2/WPA3-Personal (PSK), WPA2/WPA3-Enterprise (EAP)
- Wireless captive portal (external RADIUS authentication, internal user authentication, redirect URL)
- NAT, virtual server/port forwarding, port triggering, firewall traffic rules, DMZ host, UPnP/ NAT-PMP, allow/deny ping on WAN interfaces
- ALG: PPTP/L2TP/IPsec VPN passthrough, PPPoE Relay, FTP/TFTP/SNMP/SIP/RTSP/IRC/ H.323 passthrough
- MAC & IP filtering
- Advanced Traffic/Firewall rules configuration
- Custom scheduling for access control rules
- Wireless guest network
- WPS (WiFi Protected Setup™) Virtual PBC (Push Button), PIN
- Wireless client isolation
- DoS prevention (TCP/UDP/ICMP Flood Prevention)
- Advanced web content filtering service powered by Bark®
- RADIUS Server

Quality of Service

- User defined classification rules with 4 priority queues
- WMM (Wireless Multimedia Extensions)

Management/Monitoring

- CLI (Console/Telnet/SSH) command line management
- HTTP/HTTPS web based management
- Security certificates: Create, Import/Export
- Scheduled automatic reboot
- Scheduled Wake-on-LAN (WoL) for remote WoL device
- View ARP and routing table entries
- View CPU load, traffic/wireless usage, NAT sessions, and Internet bandwidth usage
- Internet speed test
- Internal system logging
- Manual or online firmware upgrade and notification
- Backup and restore configuration
- Internal logging
- Ping watchdog
- DPI (nDPI deep packet inspection) monitoring
- Ping, traceroute, ns-lookup, Internet speed test, and multi-WAN diagnostic tools

Frequency

- 2.412 – 2.462GHz
- 5.180 – 5.250GHz, 5.745 – 5.825GHz

Modulation

- 802.11b: CCK, DQPSK, DBPSK
- 802.11a/g: OFDM with BPSK, QPSK and 16/64-QAM
- 802.11n: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM with OFDM
- 802.11ac: OFDM with BPSK, QPSK and 16/64/256-QAM
- 802.11ax: BPSK, QPSK, and 16/64/256/1024-QAM

Media Access Protocol

- CSMA/CA with ACK

MIMO Configuration

- 5GHz: 2x2:2
- 2.4GHz: 2x2:2

Antenna Gain

- 2 x dual band detachable/external antennas (2.4GHz: 3.2 dBi (max.) / 5GHz: 5.5 dBi)

Wireless Output Power (max output power without antenna gain)

- 802.11b/g/n/ac/ax (2.4GHz): FCC: 24 dBm (max.) / IC: 24 dBm (max.)
- 802.11a/n/ac/ax (5GHz): FCC: 23 dBm (max.) / IC: 23 dBm (max.)

Receiving Sensitivity (per chain)

- 802.11a: -70 dBm (typical) @ 54Mbps
- 802.11b: -80 dBm (typical) @ 11Mbps
- 802.11g: -69 dBm (typical) @ 54Mbps
- 802.11n (2.4GHz): -59 dBm (typical) @ 300Mbps
- 802.11n (5GHz): -56 dBm (typical) @ 300Mbps
- 802.11ac: -56 dBm (typical) @ 866Mbps
- 802.11ax (2.4GHz): -50 dBm (typical) @ 574Mbps
- 802.11ax (5GHz): -51 dBm (typical) @ 1201Mbps

Wireless Channels

- 2.4GHz: FCC: 1–11
- 5GHz: FCC: 36, 40, 44, 48, 149, 153, 157, 161, 165

Power

- Input: 100 – 240 V AC, 50 – 60 Hz, 0.9A
- Output: 12V DC, 2A external power adapter
- Max. Consumption: 17.4W

Operating Temperature

- 0° – 40° C (32° – 104° F)

Operating Humidity

- Max. 90% non-condensing

Certifications

- FCC
- IC

Dimensions

- 280 x 160 x 44.45mm (11 x 6.3 x 1.75 in.)
- Rack mountable 1U height

Weight

- 1.215kg (2.68 lbs.)

Warranty

- 3 year

Package Contents

- TEW-929DRU
- Quick Installation Guide
- 2 x detachable high gain antennas
- Network cable (1.5m / 5 ft.)
- RJ-45 to RS-232 console cable (1.5m / 5 ft.)
- Power adapter (12V DC, 2A)
- Rackmount kit

*Maximum wireless signal rates are referenced from IEEE 802.11 theoretical specifications. Actual data throughput and coverage will vary depending on interference, network traffic, building materials, and other conditions. For maximum performance of up to 1.2Gbps, use with a 1.2Gbps 802.11ax wireless adapter. For maximum performance of up to 867Mbps, use with an 867Mbps 802.11ac wireless adapter. For maximum performance of up to 300Mbps, use with an 300Mbps 802.11n wireless adapter. Multi-User MIMO (MU-MIMO) requires the use of multiple MU-MIMO enabled wireless adapters.

**Hive cloud management requires firmware 1.0.0.10 or above.

All references to speed are for comparison purposes only. Product specifications, size, and shape are subject to change without notice, and actual product appearance may differ from that depicted herein.