



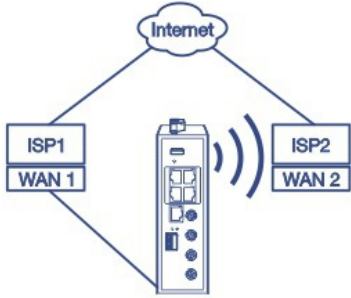
## Industrial AC1200 Wireless Dual Band Gigabit Router

TI-W100 (v1.0R)

- Industrial AC1200 Dual-Band Wireless
- 4 x Gigabit ports, 1 x Gigabit WAN port
- Hardened IP30 rated metal housing
- Operating temperature range of -30° – 70° C (-22° – 158° F)\*
- Up to 8 SSIDs per band
- SSID to VLAN mapping
- Wireless WAN support (WAN load balancing/failover between wired Ethernet WAN and Wireless WAN)
- 802.1Q/Port-based VLAN support
- Inter-VLAN routing
- IPsec & SSL VPN (OpenVPN) support
- Redundant power inputs with overload current protection
- Digital input/output
- Modbus serial port and virtual COM support
- Power supply sold separately (model: TI-M6024)
- Optional Magnetic WiFi Antenna base, model TEW-LB101 (sold separately)

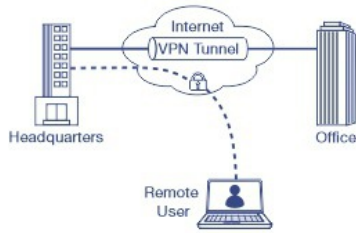
TRENDnet's Industrial AC1200 Wireless Dual Band Gigabit Router, model TI-W100, features dual-band AC1200 WiFi to maximize device networking speeds; it is equipped with an 867Mbps Wireless AC network, and a 300Mbps Wireless N network. The industrial WiFi router supports dual-WAN hybrid connections (Ethernet & WiFi) for load balancing or fail-over modes, and encrypted Virtual Private Network (VPN) access for remote users. This industrial grade router is equipped with an IP30 rated metal housing, and designed to operate within a wide temperature range of -30° – 70° C (-22° – 158° F) for rugged industrial environments.

Advanced traffic management controls, troubleshooting, and SNMP monitoring support make this industrial WiFi router a powerful solution for SMB networks. The industrial 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, increase employee productivity, and finally take control of your internet.



### Dual-WAN

Connect up to two separate WAN internet connections (Ethernet & WiFi) to efficiently load-balance traffic, or configure for redundancy using the WAN fail-over mode.



### VPN

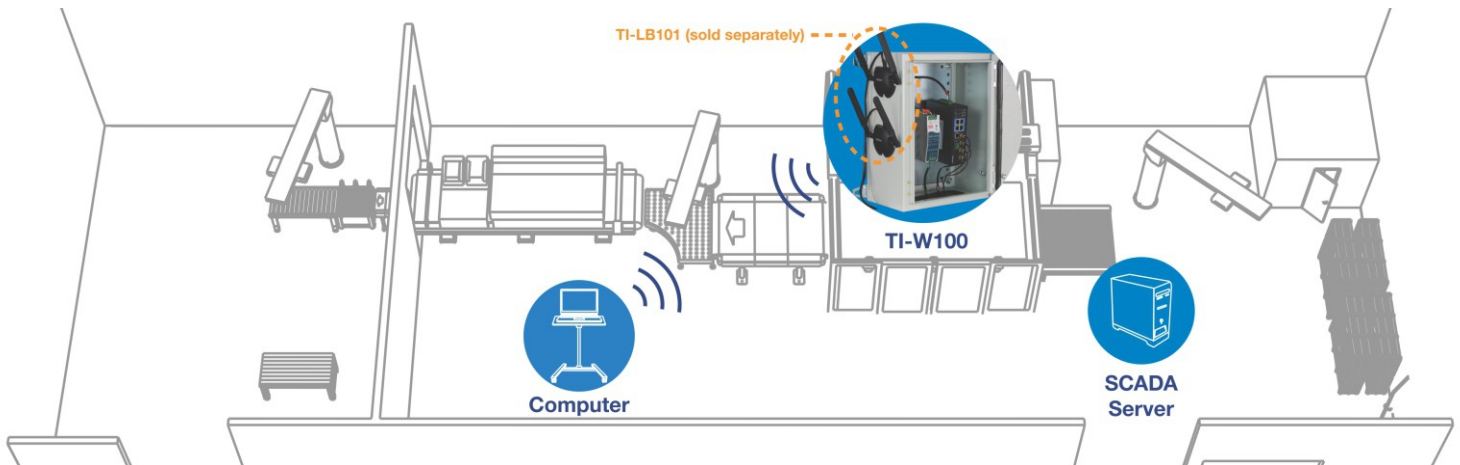
Supports IPsec and SSL VPN protocols for encrypted remote access to local area network (LAN) resources over the internet.



### AC1200 WiFi

Features dual-band AC1200 WiFi to maximize device networking speeds; it's equipped with an 867Mbps Wireless AC network, and a 300Mbps Wireless N network.

## NETWORKING SOLUTION



## FEATURES



### Dual-WAN

Connect up to two separate WAN internet connections (Ethernet & WiFi) to efficiently load-balance traffic by distributing network traffic over the wired and wireless WAN connections, or configure for redundancy using the WAN fail-over mode



### Pre-Encrypted Wireless

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



### Dual-Band WiFi

Concurrent 867Mbps WiFi AC and 300Mbps WiFi N combined with AP Router, WDS, and WDS Hybrid modes support multiple applications



### Ports

4 x Gigabit PoE+ ports, 1 x Gigabit WAN port



### VPN

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



### Inter-VLAN Routing

Provides routing capabilities between VLANs



### QoS

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



### DIN-Rail Mount

Metal enclosure with integrated DIN-rail mount



### Management

Supports web browser (HTTP, HTTPS), CLI (Telnet / SSHv2), SNMP, and TR-069 management



### Wide Temperature Range

The industrial WiFi router features a wide operating temperature range of -30° – 70° C (-22° – 158° F)\*, allowing for installations in extreme hot or cold environments

8-pin removable terminal block (primary/RPS power inputs & digital input/output)

LED indicators

1 x USB 2.0 (Log Storage)

Reset button

4 x Gigabit ports

1 x Gigabit WAN port

4-pin removable terminal block

RS-232/RS-485 serial port (Modbus)

4 x RP-SMA antenna connectors (2 x 2.4GHz/5GHz WLAN, 2 x 5GHz)

Front



Back

4 x detachable dual-band antennas

DIN-Rail mount

Network cable (1.5m / 5 ft.)

## SPECIFICATIONS

### Standards

- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3ab
- IEEE 802.1Q
- IEEE 802.1X
- IEEE 802.11a
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.11n (up to 300Mbps @ 256QAM)\*
- IEEE 802.11ac (5GHz: up to 867Mbps @ 256QAM)\*
- IEEE 802.3af
- IEEE 802.3at

### Device Interface

- 4 x Gigabit ports
- 1 x Gigabit WAN port
- 2 x Wireless WAN uplink (2.4GHz or 5GHz)\*
- 1 x USB 2.0 (Log Storage)
- 4 x RP-SMA antenna connectors (2 x 2.4GHz/5GHz WLAN, 2 x 5GHz)
- 8-pin removable terminal block (primary/RPS power inputs & digital input/output)
- 4-pin removable terminal block RS-232/RS-485 serial port (Modbus)
- LED indicators
- Reset button

### VPN

- SSL VPN Tunnels: Up to 2
- IPsec VPN Tunnels: Up to 16 tunnels
- SSL OpenVPN Modes: Server, Client
- SSL OpenVPN Encryption: Blowfish, AES-128/192/256
- SSL OpenVPN Authorization: TLS with RSA, Static Key
- SSL OpenVPN Hash Algorithm: MD4, MD5, SHA-1/256/512
- IPsec VPN Modes: Site-to-Site, Client-to-Site or Dynamic VPN
- IPsec Encryption: DES, 3DES, AES-128/192/256
- IPsec Hash Algorithm: MD5, SHA-1/256
- IPsec Key Exchange: IKEv1/2, Main/Aggressive Mode, Pre-shared key, X.509, DH Groups 1/2/5/14-18
- IPsec Protocols: ESP/AH, PFS DH Groups 1/2/5/14-18, X-AUTH, DPD, Local/Remote ID: FQDN, User@FQDN, Key ID
- IPsec NAT Traversal

### Performance

- NAT (LAN-to-WAN) throughput: 900Mbps
- Routing performance: 900Mbps
- Maximum concurrent sessions: 32,000
- Maximum number of VLANs: 4 (ID: 1-4091)
- IPsec VPN (AES-256/SHA-256/LAN-to-LAN) throughput: 160Mbps
- SSL VPN (OpenVPN®) Throughput (Blowfish/SHA-1/Server): 20Mbps

### Networking

- WAN Modes: NAT, Classical Routing or Bridge Mode (NAT Disabled)
- NAT Loopback Enable/Disable
- NAT Modes: NAT, PAT, One-to-One NAT
- VLAN tag assignment on WAN interface
- IPv4 WAN Modes: Dynamic IP (DHCP), Static IP, PPPoE, PPTP, L2TP
- Wireless WAN Mode: NAT enable/disable, Dynamic IP (DHCP), Static IP, fast roaming signal threshold/channels
- IPv6 WAN Modes: Static, Auto-configuration (SLAAC/DHCPv6), Link-Local, PPPoE
- VLAN ID assignment on WAN interface
- IGMP proxy on WAN interface
- WAN IP address alias
- Routing: Static (Up to 64 entries), RIPv1/v2, OSPFv2, BGP4
- Static ARP (Up to 32 entries)
- VLAN: Port-based, 802.1Q (Up to 4 VLANs, 4 IP interfaces)
- Inter-VLAN Routing
- SSID per VLAN assignment
- DHCP Server, Relay, Options 42/66/72/114/150/160
- Dynamic DNS: dyn.com, no-ip.com
- WAN Failover
- Networking monitoring for WAN load balancing (DNS query or ICMP, latency threshold, fail threshold, query threshold)
- WAN Traffic load balancing: Smart Weight (Automatic), Specific Weight Percentage, User defined traffic policy
- VPN passthrough: IPsec, PPTP, L2TP
- Up to 8 SSIDs per band
- AP Router, WDS only, and WDS hybrid modes
- WiFi scheduling
- 5G WiFi bandsteering

### Access Control

- Wireless encryption: WPA/WPA2-PSK, WPA/WPA2-RADIUS
- Wireless IDS
- Certificate management (Root CA, SCEP, Local certificate, self-signed, RSA, Import PEM certificates)
- NAT/SPI, virtual server/port forwarding, port triggering, firewall traffic rules, DMZ host, allow/deny ping on WAN interfaces
- ALG: PPTP/L2TP/IPsec VPN passthrough
- MAC filtering
- Custom scheduling for access control rules
- MMI (max. password attempts, login timeout, HTTP/HTTPS, HTTPS certificate, HTTP compares/binding)
- Wireless client isolation
- Stealth Mode
- DoS prevention

### Quality of Service

- Software-based priority queues
- Hardware-based bandwidth control
- WMM

### Management

- HTTP/HTTPS web-based GUI
- CLI: Telnet / SSHv2
- Command script
- TR-069/STUN
- SNMP v1, v2c, v3
- SNMP trap (up to 4 receivers)
- Modbus Slave, gateway for TCP, and RTU/ASCII master/slave access
- Virtual COM RFC2217, TCP client, TCP server, UDP
- Data logging (sniffer, offline proxy, full-time proxy)
- Device configuration backup & restore, upgrade firmware, reboot, and reset to default
- Scheduled auto reboot
- Auto restore configuration
- Set custom UI logo
- Set custom CSS
- Wake-on-LAN (WoL)
- Diagnostic tools: Built-in ping, traceroute, speed test, and packet capture utilities
- Event configuration and management: digital input/output, Modbus, syslog, SNMP trap, email alert, reboot
- System time settings (NTP, manually set, or copy from PC, time zone, and daylight savings time)
- FTP/HTTPS/SFTP server
- Creates groups (IP, MAC, or host name), external server object definition

## MIB

- MIB II RFC 1213

## Frequency

- 2.412 - 2.462GHz
- 5.150 – 5.250GHz, 5.725 – 5.850GHz

## 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

## Media Access Protocol

- CSMA/CA with ACK

## Antenna Gain

- 4 x 2.4GHz 2.5dBi / 5GHz: 3.5 dBi dual-band detachable/external

## Wireless Output Power (max output power without antenna gain)

- 802.11a: FCC: 21 dBm (max.) / ETSI: 17.38 dBm (max.)
- 802.11b: FCC: 26 dBm (max.) / ETSI: 17.38 dBm (max.)
- 802.11g: FCC: 23 dBm (max.) / ETSI: 17.38 dBm (max.)
- 802.11n (2.4GHz): FCC: 21 dBm (max.) / ETSI: 14.38 dBm (max.)
- 802.11n (5GHz): FCC: 21 dBm (max.) / ETSI: 16.4 dBm (max.)
- 802.11ac: FCC: 21 dBm (max.) / ETSI: 16.4 dBm (max.)

## Receiving Sensitivity

- 802.11a: -68 dBm (typical) @ 54Mbps
- 802.11b: -83 dBm (typical) @ 11Mbps
- 802.11g: -70 dBm (typical) @ 54Mbps
- 802.11n (2.4GHz): -66 dBm (typical) @ 300Mbps
- 802.11n (5GHz): -64 dBm (typical) @ 300Mbps
- 802.11ac: -55 dBm (typical) @ 867Mbps

## Wireless Channels

- 2.4GHz: FCC: 1 – 11, ETSI: 1 – 13
- 5 GHz: FCC: 36, 40, 44, 48, 149, 153, 157, 161, 165; ETSI: 36, 40, 44, 48

## Power

- PWR (Primary) terminal input: 12 – 48V DC
- RPS (Redundant) terminal input: 12 – 48V DC
- Digital Input: Logic 0: 0V-2V, Logic 1: 5V-30V
- Digital Output: Relay Mode, up to 30V/1A
- Compatible power supply: TI-M6024 (60W) sold separately
- Max. Consumption: 20W

## Terminal Block

- Redundant power inputs, alarm relay contact, 8 pin
- Wire range: < 2.5 mm<sup>2</sup>
- Solid wire (AWG): 12-24
- Stranded wire (AWG): 12-24
- Wire strip length: 5mm

## Enclosure

- IP30 rated metal enclosure
- Fanless passive cooling
- DIN-Rail mount
- Grounding point
- ESD (Ethernet) Protection: 8KV DC
- Surge (Power) Protection: 2KV DC

## MTBF

- 414,021 hours @ 25° C
- 285,605 hours @ 70° C

## Operating Temperature

- -30° – 70° C (-22° – 158° F)\*

## Operating Humidity

- Max. 95% non-condensing

## Dimensions

- 160 x 120 x 51mm (6.3 x 4.72 x 2.01 in.)

## Weight

- 884g (1.95 lbs.)

## Certifications

- CE
- FCC
- Freefall (IEC 60068-2-32)

## Warranty

- 3 year

## Package Contents

- TI-W100
- Quick Installation Guide
- 4 x detachable dual-band antennas
- Network cable (1.5m / 5 ft.)
- 1 x 8-pin removable terminal block (Power & digital input/output)
- 1 x 4-pin removable terminal block (Serial)