



# 48-Port Gigabit Managed Layer 2 Switch with 4 Shared SFP Slots

# TL2-G448 (v1.0R)

- · Command Line interface management supported
- SNMP (v1, v2c, v3), 802.1X, RSTP, and MSTP support
- Supports Port Trunking, Mirroring, IGMP, Static and Dynamic VLAN, and RMON
- Private / Voice VLAN, QoS, and bandwidth controls
- 48 x Gigabit ports
- 4 x shared SFP slots and a console port
- 96 Gbps switching capacity
- Smart fans reduce energy consumption

TRENDnet's 48-Port Gigabit Managed Layer 2 Switch, model TL2-G448, has 48 x Gigabit ports, 4 x shared SFP slots, a console port, and an advanced Layer 2 management feature set. This IPv6 ready switch offers traffic management, troubleshooting, access control, and monitoring features.

# TRENDIET



# **Hardware Design**

Provides 48 x Gigabit ports, 4 x shared SFP slots, a console port, and includes rackmount brackets.



#### **Smart Fan**

Smart fan saves energy by varying fan speed and use based on cooling needs



#### **IPv6 Ready**

This switch supports IPv6 configuration and IPv6 neighbor discovery.



## **Traffic Management**

A broad range of network configurations are supported by: 802.3ad link aggregation, Asymmetric VLAN, 802.1Q VLAN, Voice VLAN, Private VLAN, Bandwidth Controls, GVRP, IGMP v1-v3, 802.1p Class of Service (CoS), Spanning Tree (STP, RSTP, and MSTP), and QoS queue scheduling.



## **Troubleshooting**

Real time traffic comparison charts, error group charts, and a convenient cable diagnostic test aid in rapid troubleshooting.



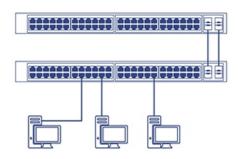
## **Access Controls**

Features such as ACL, SSL, MAC / port filtering, Denial of Service controls, 802.1X, TACACS+, and RADIUS are compatible with layered network access controls.



#### Monitoring

RMON, SNMP, SNMP Trap, and Port Mirroring support administrator monitoring solutions.



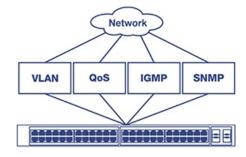
#### **High-Speed SFP**

Offers four shared Gigabit SFP slots to allow for long distance fiber optic uplinks or downlink NAS / access server connections.



# **Smart Fans**

Smart fans save energy and reduce operating noise by varying fan speed and usage based on real-time cooling needs.



### Integration Flexibility

Managed features include access control lists, VLAN, IGMP snooping, QoS, RMON, SNMP trap and syslog for monitoring and flexible network integration.



- Reset button
- 2 Gigabit ports
- 3 Gigabit ports (shared)
- 4 SFP slots (shared)
- 6 Console port
- 6 Power port



# **Specifications**

#### **Standards**

- IEEE 802.1d
- IEEE 802.1p
- IEEE 802.1Q
- IEEE 802.1s
- IEEE 802.1w
- IEEE 802.1X
- IEEE 802.1ab
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3z
- IEEE 802.3ab
- IEEE 802.3ad
- IEEE 802.3az

#### **Device Interface**

- 48 x Gigabit ports
- 4 x shared Gigabit SFP slots
- 1 x RJ-45 console port
- LED indicators
- · Reset button

#### **Data Transfer Rate**

- Ethernet: 10 Mbps (half duplex), 20 Mbps (full duplex)
- Fast Ethernet: 100 Mbps (half duplex), 200 Mbps (full duplex)
- Gigabit Ethernet: 2000 Mbps (full duplex)

#### Performance

- · Switch fabric: 96 Gbps
- RAM buffer: 1 MB
- MAC Address Table: 16K entries
- Jumbo Frames: 10 KB
- HOL Blocking Prevention
- Forwarding rate: 71.4 Mpps (64-byte packet size)

#### Management

- CLI (Console / Telnet / SSHv2)
- HTTP / HTTPS (SSL v2 / 3 TLS) Web based GUI
- SNMP v1, v2c, v3
- RMON v1
- · Static Unicast MAC Address
- Enable / disable 802.3az Power Saving
- LLDP
- Virtual Cable Test
- IPv6: IPv6 Neighbor Discovery, IPv6 Static IP, DHCPv6, Auto configuration

#### **MIB**

- MIB II RFC 1213
- Bridge MIB RFC 1493
- Bridge MIB Extension RFC 2674

- SNMPv2 MIB RFC 1907
- Ethernet Interface MIB RFC 1643
- Ethernet -like MIB RFC 2863
- Interface Group MIB RFC 2233
- MIB Traps Convention RFC 1215
- RMON MIB RFC 1757, RFC 2819
- RADIUS Client Authentication MIB RFC 2618
- LLDP-MIB IEEE 802.1ab

• 802.1p MIB RFC 2674

• Ping MIB RFC 2925, RFC 4560

#### **Spanning Tree**

- IEEE 802.1D STP (Spanning Tree protocol)
- IEEE 802.1w RSTP (Rapid Spanning Tree protocol)
- IEEE 802.1s MSTP (Multiple Spanning Tree protocol)

#### **Link Aggregation**

- Static Link Aggregation
- 802.3ad Dynamic LACP

#### Quality of Service (QoS)

- 802.1p Class of Service (CoS)
- DSCP (Differentiated Services Code Point)
- · Bandwidth Control per port
- Queue Scheduling: Strict Priority, Weighted Round Robin (WRR)

#### **VLAN**

- · Multiple management VLAN assignment
- Asymmetric VLAN
- 802.1Q Tagged VLAN
- · Dynamic GVRP
- Up to 256 VLAN groups, ID Range 1-4094
- · Private VLAN (Protected Ports)
- Voice VLAN (10 user defined OUIs)

#### Multicast

- IGMP Snooping v1, v2, v3
- Static Multicast Address
- Up to 256 multicast entries
- MLD Snooping v1, v2

## Port Mirror

- RX, TX, or Both
- One to one
- Many to one

#### Access Control

- 802.1X Port-Based Network Access Control, RADIUS, TACACS+
- · Local Dial In User Authentication
- DHCP Snooping
- · Loopback Detection

- · Duplicated Address Detection
- Trusted Host
- Denial of Service (DoS)

#### ACL IPv4 L2-L4 & IPv6

- MAC Address
- VLAN ID
- Ether Type (IPv4 only)
- IP Protocol 0-255
- TCP / UDP Port 1-65535
- 802.1p
- DSCP (IPv4 only)
- IPv6 Address (IPv6 only)

#### **Management Utility**

 Windows<sup>®</sup> 10, 8.1, 8, 7, Vista, XP, Windows <sup>®</sup> 2003 / 2008 Server

#### Power

- Input: 100 240 V AC, 50/60 Hz, internal power supply
- Consumption: 34.5 Watts (max.)

#### **Smart Fan / Acoustics**

- Quantity: 2
- Noise Level: 50 dB(A) (max.)

#### **MTBF**

• 527,110 hours

#### **Operating Temperature**

• 0 – 45°C (32 – 113°F)

# Operating HumidityMax. 90% non-condensing

# 440 x 250 x 44.45 mm (17.3 x 9.8 x 1.75 in.) Rack mountable 1U height

# Weight

• 3.98 kg (8.77 lbs.)

# Certifications

- CE
- FCC
- UL

# Warranty

• 3 year limited

# Package Contents

- TL2-G448
- Quick Installation Guide CD-ROM (Utility & User's Guide)
- Power cord (1.8 m / 6 ft.)
- RJ-45 to RS-232 console cable (100 mm / 3.94 in.)
- Rack mount kit

