



**GS-1224L:** 24-Port GbE Web Smart Switch with 4 SFP Dual Media

### Key Features

- **Standard compliance**
  - IEEE 802.3 10Base-T Ethernet
  - IEEE 802.3u 100Base-TX Fast Ethernet
  - IEEE 802.3ab 1000Base-T Ethernet
  - IEEE 802.3z 1000Base-X Ethernet
  - IEEE 802.3x flow control capability
  - IEEE 802.3ad Port trunk with LACP
  - IEEE 802.1q VLAN
  - IEEE 802.1d/1w STP/RSTP
- **RoHS Compliance**
- **Subscriber Interface**
  - 24 Gigabit Ethernet ports
  - Auto-negotiation
  - Auto-MDIX
  - Backpressure flow control for half duplex.
  - 802.3x flow control for full duplex.
  - Port 21,22,23,24 are TP/SFP Fiber auto sense
  - Connector: 20 RJ-45 and 4 SFP/ RJ-45 module
- **Performance**
- **Switching capacity:**
  - 48Gbps forwarding bandwidth for switch, nonblocking switch fabric
  - Wire speed performance
  - 8 K MAC addresses
  - 500KB on-chip frame buffer
  - Jumbo frame support to 9600 bytes
- **VLAN**
  - 24, Port-base VLAN
  - IEEE802.1q tag-base VLAN, 4094 max, up to 24 active VLANs
  - In tag-base VLAN, supports egress/ ingress packet filter
  - Q-in-Q is an efficient method for enabling Subscriber Aggregation.
  - Provides Multicast VLAN for DVB application
- **QoS**
  - Supports port based, Tag based, IPv4 ToS and DSCP
  - Supports priority in a Q-in-Q tag
  - Supports two scheduling, WRR and Strict

### Benefits

- **QoS with Four Priority Queues**

The QoS(Quality Of Service) feature provides four internal queues to support four different classifications of traffic. High priority packet streams experience less delay inside the switch, which supports lower latency for certain delay-sensitive traffic. The switch classify the packet as one of the four priorities according to 802.1p priority tag, DiffServ and/or IP TOS. The QoS operate at full wire speed. The actual scheduling at each egress port can be based upon a strict priority, weighted round robin or a mix of both.
- **Port Mirroring**

This mechanism helps track network errors or abnormal packet transmission without interrupting the flow of data. Allow ingress traffic to be monitored by a single port that is defined as mirror capture port. The mirror capture port can be any 10/100 port, 10/100/1000 port. Mirroring multiple ports is possible but can create congestion at the mirror capture port.
- **Q-in-Q VLAN for Performance & Security**

The VLAN feature in the switch offers the benefits of both security and performance. VLAN is used to isolate traffic between different users and thus provides better security. Limiting the broadcast traffic to within the same VLAN broadcast domain also enhances performance. VLAN support enabling advanced techniques such as "802.1Q-in-Q" to be deployed.
- **Multicasting VLAN reduce the multicast video streaming traffic in DVB application**

Multicast VLAN is designed for applications (such as Digital Video Broadcasting (DVB)) using multicast traffic across an IP Ethernet network. The feature allows one single multicast VLAN to be shared among different subscriber VLANs on the network. This improves bandwidth utilization by reducing multicast traffic in the subscriber VLANs and simplifies multicast group management.
- **802.1x Access Control Improve Network Security**

802.1x features enable user authentication for each network access attempt. Port security features allow you to limit the number of MAC addresses per port in order to control the number of stations for each port. Static MAC addresses can be defined for each port to ensure only registered machines are allowed to access. By enabling both of these features, you can establish an access mechanism based on user and machine identities, as well as control the number of access stations.
- **Port Trunk for Bandwidth Aggregation**

The Gigabit ports can be combined together to create a multi-link load-sharing trunk. Up to 12 Gigabit ports can be set up per trunk. The switch supports up to 12 trunking groups. Port trunks are useful for switch-to-switch cascading, providing very high full-duplex speeds.
- **Trap Event for Exception Management**

We use SNMP Trap mechanism to inform supervisor to know the instant abnormal status of the switch.
- **4 Dual Media Ports for Flexible Fiber Connection**

Four dual media ports are provided for flexible fiber connection. You can

- **Bandwidth Control**
  - Supports bandwidth rating per port ingress and egress rate limit 1000 Mbps with 1Mbps increment
- **LACP/Port Trunk**
  - Port trunking with 12 trunking groups
  - Up to 12 ports for each group
- **Broadcast Storm**
  - Multicast/Broadcast/Unknown-Unicast Storm suppression
- **Port Mirroring**
  - I Support 1: N RX port mirroring
  - I Supports port sniffer function with 3 modes:(TX Monitor Mode, RX Monitor Mode and TX-RX pair Monitor Mode)
- **Software Upgrade**
  - Supports firmware upgrade via web GUI
- **802.1x network access security**
  - Provides multi-host authentication based on port-based
  - Provides mac based authentication with Radius server
- **SNMPv1, v2c Network Management**
  - MIB Files: MIB II(RFC1213), Bridge MIB(RFC1493), Interface Group MIB (RFC 2863)

**Overview**

The Switch is a cost-effective web smart switch that meets all IEEE 802.3/u/ab/z Gigabit, Fast Ethernet specifications. It is equipped with 20 10/100/1000Base-T ports and 4 dual media ports that accommodate optional 10/100/1000 Base-T or SFP modules. The switch can be managed through Ethernet port using Web browser, the network administrator can logon the switch to monitor, configure and control each port's activity. In addition, the switch implements the QoS (Quality of Service), Port Mirror, VLAN, LACP, LAN security, Multicasting video stream protocol, and SNMP v2c. It is suitable for SMB application.

select to install optional transceiver modules in these slots for short, medium or long distance fiber backbone attachment. Use of the SFP will disable their corresponding built-in 10/100/1000Base-T connections.

• **Build-in Web-base Management**

Instead of using CLI interface, we provide a more convenient GUI for user. We just need to configure switch via Web Browser. It is more quickly for user to familiar the method to control switch on the basis of this design.

**Technical Specifications**

• **LED Description**

	LED	Color	Function
Global	POWER	Green	-Lit when +5V power is coming up
Global	CPU	Green	-Blinks when CPU is active
Port 1-24	LINK /ACT	Green	-Lit when connection with remote device is good -Blinks when any traffic is present
Port 1-24	10/100/1000Mbps	Green /Amber	-Lit Green when TP link on 1000Mbps speed -Lit Amber when TP link on 100Mbps speed -Off when 10Mbps or no link occur
Port 21,22, 23,24	SFP	Green	-Lit when SFP connection with remote device is good -Blinks when any traffic is present

• **Hardware Spec.**

Feature	Detailed Description
<b>Voltage</b>	100~240 VAC
<b>Frequency</b>	50~60 Hz
<b>Consumption</b>	20W
<b>Ambient Temperature</b>	0 to 40 °C
<b>Operating Humidity</b>	10% to 90%
<b>Dimensions</b>	442(W) x 209(D) x 44(H) mm
<b>Weight</b>	2.4kg
<b>Certification</b>	Comply with FCC Part 15 Class A & CE Mark
<b>Safety</b>	PSU comply with UL

**Packing Information**

Carton Dimensions(mm)	pcs/Carton	N.W (KG)	G.W (KG)
530x512x345	5	19	20

**Ordering Information**

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Gigabit Switch