



GEL-2861 Version: 1

## 28-Port L2 Managed Gigabit Switch, 4 x SFP

The GEL-2861 is a L2 managed switches designed for the SMB market. The switches can be deployed indifferent target network topologies, from small to large. As well as IPv4 and IPv6 features.

The GEL-2861 includes the best green-saving technologies (IEEE 802.3az and Green-Ethernet). Using the Energy Efficient Ethernet standard, the switch automatically decreases power usage when network traffic is low.

### Key Features

- 24 Gigabit Ethernet ports and 4 Gigabit SFP slots
- IEEE 802.1d/w/s Spanning Tree Protocol (STP) and port mirroring
- IEEE 802.3ad LACP for auto port aggregation
- Supports Access Control List (ACL) authentication of up to 512 entries and port-based security with IEEE802.1X
- IP Multicast Filtering through IGMP Snooping V1 / V2 / V3
- Supports port-based VLAN, IEEE 802.1Q VLAN Tagging
- Supports IPv4/IPv6 network operation
- IEEE 802.1p QoS with 8 priority queues

### Specifications

#### System Specifications

##### Standards & Protocols:

IEEE 802.3 10-BASE-T, Ethernet  
 IEEE 802.3u 100-BASE-TX, Fast Ethernet  
 IEEE 802.3ab 1000BASE-T, Gigabit Ethernet  
 IEEE 802.3z 1000BASE-X, Gigabit Ethernet  
 IEEE 802.1p Quality of Service (QoS)  
 IEEE 802.1Q Virtual LANs (VLANs)  
 IEEE 802.1D MAC Bridges  
 IEEE 802.1d Standard Spanning Tree Protocol  
 IEEE 802.1s Multiple Spanning Tree (MSTP)  
 IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)  
 IEEE 802.3x Flow Control  
 IEEE 802.3ad Link Aggregation Control Protocol (LACP)  
 IEEE 802.3az Energy-Efficient Ethernet  
 Link Layer Discovery Protocol (LLDP)  
 Universal Plug and Play (UPnP)  
 SNMP v1/v2/v3  
 RMON Groups 1,2,3,9 (Statistics, History, Alarm, Event)  
 LLDP, LLDP-MED

**Memory:**

32MB

**Buffer Memory:**

4.1Mbits

**Port:**

24x RJ-45 10/100/1000BASE-T ports

4 x 100/1000Base-X SFP Slots

**Button/Knob:**

Reset / Factory Default Button

**Indicator:**

Power; Link/Active

**Transmission Method:**

Store-and-Forward

**Power Input:**

100-240V AC, 50-60 Hz, Internal Power Supply

**Power Consumption:**

< 20W

**Backplane (Gbps):**

56Gbps

**MAC Address Table:**

8K

**Data Transfer Rate:**

10/100/1000Mbps

## Features

**General:**

Quality of Service (QoS):

8 hardware Priority Queues per port

Traffic classification based on IEEE 802.1p CoS

IPv4/IPv6 precedence/ type of service (ToS) / DSCP based

Rate Limiting - Ingress policer egress shaping and rate control

Scheduling for priority queues:

WRR Priority Scheduling

Strict Priority Scheduling

Hybrid (DDR/WRR+Strict)

Spanning Tree:

Bridge Protocol Data Units (BPDU)

IEEE 802.1D MAC Bridges

IEEE 802.1d Spanning Tree Protocol (STP)

IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)

IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)

Virtual Local Area Network (VLAN):

802.1Q tag-based VLAN - up to 4K VLANs and 4K VLAN IDs

Port-based VLAN

MAC-based VLAN

DHCP: DHCP Client; DHCP Relay (Layer 2)

IPv6:

IPv6 Ping / Trace /Telnet / Syslog / TFTP

IPv4/IPv6 Dual Protocol Stack

IPv6 Address Type: Unicast/Multicast

ICMPv6

ICMPv6 Redirect (Host)

IPv6 Path MTU Discovery

IPv6 Neighbor Discovery:

Router Discovery/Duplicate Address/Parameter Discovery/Prefix Discovery/Address

Resolution/Unreachable Neighbor Detection

Stateless Autoconfiguration

Manual Configuration  
SNMP over IPv6  
HTTP over IPv6  
IPv6 Telnet Support  
IPv6 Syslog Support  
IPv6 TFTP Support  
Remote IPv6 Ping  
Ping over IPv6  
trace route over IPv6  
DHCPv6:Client/Relay  
MLD Snooping v1/v2  
IGMP:  
IGMP v1/v2/v3 snooping; IGMP Queried; IGMP Filtering /Throtting  
Port Mirroring:  
One to One /One to Many  
IEEE 802.3ad LACP Trunk

**Security:**

DDOS Protection  
CPU Guard  
Port Isolation  
Port Mirror /Remote Mirror  
Broadcast / Multicast / Unknown Storm Control  
802.1X  
ACL  
Port Security  
MAC Filter / MAC Authentication  
AAA  
IP Source Guard  
SSH  
Dynamic ARP Inspection  
Cable diagnostics

**Management:**

System Password protection  
NTP/SNTP  
Dual Image /Configuration  
Firmware upgrade /download (HTTP/TFTP/FTP)  
RMON/ SNMP  
Management Access ( Console / SNMP/ Web / Telnet )  
Memory Flash Log  
Event /Error Log  
DHCP v4/v6 Snooping  
DHCP Snooping Option82  
Support Port Statistics

**L3:**

Static Routing(request firmware upgrade)

**Ease of Use:**

Dashboard

**Performance**

**Packet Forwarding Rate:**

41.7 Mpps

**Jumbo Frame (K):**

10K



## Environment

### Power Saving:

IEEE 802.3az Energy Efficient Ethernet:

- Automatically turns power off on RJ-45 port when detecting link down or Idle of client
- Cable length detection: Adjusts the signal strength based on the cable length
- Reduces the power consumption for cables shorter

### Acoustic Noise:

0 dB (A)

### Heat Dissipation:

68,242 (Btu/H)

### Temperature (°C):

0-50 C

### Humidity (Non-condensing):

10-90%

### Installation:

desktop & 19-inch rack-mountable

## Physical Specifications

### Dimensions (W x D x H mm):

440\*220\*44mm

### Weight (g):

4600g with box, 2400g without box

## Reliability

### MTBF:

25 degreeC: 563,826 hrs

45 degreeC: 314,969 hrs

## Approval and Compliance

### EMI/EMS:

CE classA,FCC,VCCI

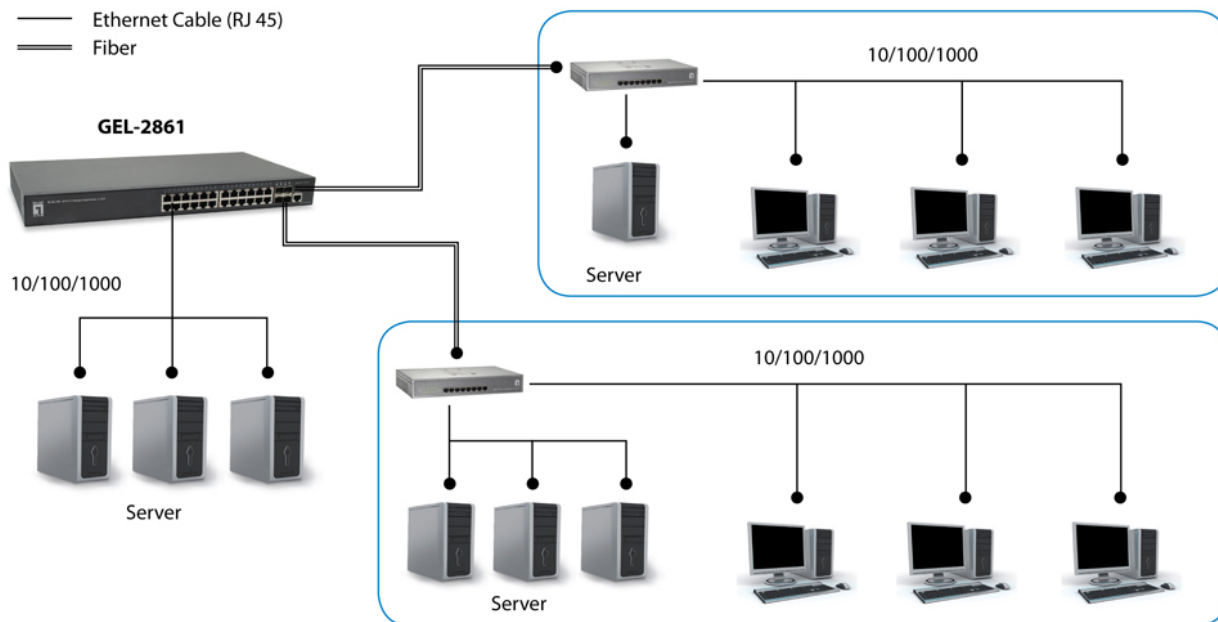
### Safety:

UL,BSMI,EN 60950-1:2006+A

### Environmental Test:

RoHS

## Diagram



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## Order Information

GEL-2861

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## Package Contents

GEL-2861  
Power Cord  
Quick Installation Guide  
Resource CD (User Manual, QIG)  
Console Cable  
19" Rack Mount Kit

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