



GTL-2691 Version: 1

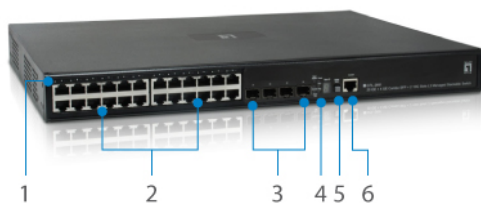
**!** Modules are to be ordered separately.

## 26-Port Stackable L3 Managed Gigabit Ethernet Switch, 4 x SFP/RJ45 Combo, 2 x Module Slots 10-Gigabit

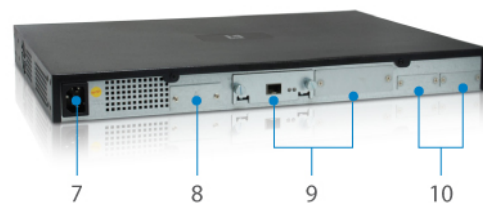
The LevelOne GEL-2691 is a Layer 3 Managed switch with 24 x 1000Base-T ports associated with 4 x Gigabit SFP (Small Form Factor Pluggable) slots + 2 optional 10 Gigabit Ethernet Slots for SFP/XFP. This switch is also 19-inch rack-mountable and 1 x redundant power supply connector, which provides convenient and flexible installation.

The switch provides a flexible, web-based management interface SNMP for both IPv4 and IPv6 as well as layer 3 management features. Despite its affordable pricing, the GEL-2691 is equipped with many advanced features such as unicast routes, multicast routing IGMP V1/V2/V3, IGMP v3 proxy, IP VLANs, VLAN trunk, IEEE 802.1d/w/s Spanning Tree, Access Control List (ACL) of up to 512 entries for easy network security, Link Aggregation Control (LACP), IEEE 802.1p QoS with 8 priority queues much more.

An ideal network solution for workgroups and edge deployments, or anyone looking for an affordable and efficient way to expand their network.



1. Port Status LED Indicators
2. 10/100/1000Mbps RJ-45 LAN Ports
3. SFP (Mini-GBIC) Slot
4. System Status LED Indicators
5. Stack ID
6. Serial Console Port



7. Power Socket
8. Redundant Power Socket
9. 10G Module Slots
10. Hardware Stacking Ports

### Key Features

- 24 Gigabit Ethernet ports with 4 shared SFP and 2 10-Gigabit slots
- Multicast routing IGMP V1/V2/V3, MLD
- Supports DHCP relay features under Layer 3 protocol



- IEEE 802.1d/w/s Spanning Tree Protocol (STP) and port mirroring
- IEEE 802.3ad LACP for auto port aggregation
- IEEE 802.1p QoS with 8 priority queues
- Supports IPv4/IPv6 network operation
- Provides QoS control based on IP DSCP for advanced traffic prioritization and bandwidth management

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## 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 802.3ae 10 Gigabit Ethernet
- IEEE 802.1ab Station and Media Access Control Connectivity Discovery (LLDP)
- IEEE 802.1p Quality of Service (QoS)
- IEEE 802.1Q Virtual LANs (VLANs)
- IEEE 802.1D MAC Bridges
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- IEEE 802.1d Standard Spanning Tree Protocol (STP)
- IEEE 802.1V VLAN Classification by Protocol and Port
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1X Port-based Network Access Control (PNAC)
- IEEE 802.3x Flow Control (full-duplex flow control)
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)

#### Buffer Memory:

2048KB

#### Connectors and Cabling:

- 20 x 10/100/1000BASE-T RJ-45 ports
- 4 x Combination (RJ-45/SFP) Gigabit Ethernet ports
- 2 x 10GBASE extender module slots for SFP/XFP transceivers
- 2 x slots for stacking transceivers
- 1 x RJ-45 console port
- 1 x Redundant power supply connector

#### Indicator:

Port, Uplink, System, Diagnostic

#### Transmission Method:

Store-and-Forward

#### Power:

Power Consumption:

- 49.6 Watts (without expansion SFP/XFP modules)
- 63.96 Watts (with two expansion SFP/XFP modules)

Power Input: 100-240V AC, 47-63Hz, , Internal Power Supply

### Features

#### General:

Quality of Service(QoS):

- Priority Queues: 8 hardware queues per port
- Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number, Access Control List, marking DiffServ
- Supports WRR and strict priority
- Port rate limiting

IEEE 802.1D/w/s Spanning Tree with Loopback detection, Auto edge port & BPDU filter/guard

VLAN:

- IP subnet based VLAN, Private VLAN Isolated, Private VLAN

- GVRP/GARP, 802.1V VLAN Classification by Protocol and Port
- Voice VLAN, VLAN translation, IPv6 VLANs, VLAN Trunking

#### IPv6:

- IPv4/IPv6 Dual Protocol Stack, IPv6 Address Types (Unicast, Multicast)
- ICMPv6, ICMPv6 Redirect, IPv6 Path MTU Discovery, IPv6 Neighbor Discovery
- SNMP over IPv6, HTTP over IPv6, SSH over IPv6, IPv6 Telnet, IPv6 DNS Resolver
- IPv6 syslog, IPv6 SNMP, IPv6 TFTP, Remote IPv6 ping, Ping over IPv6
- Trace route over IPv6, IPv6 DHCP relay, sFlow over IPv6, IPv6 ACL
- IPv6 DiffServ, PIM-DMv6, PIM-SMv6

IGMP snooping v1/v2/v3, Select Q-in-Q, Port Mirroring

#### Security:

##### Port security:

- IP Source Guard, Supports IEEE 802.1X port-based and MAC-based access control
- IP filter configuration for management interface (SNMP, Telnet, Web)
- RADIUS authentication, Access Control List, SSH v2, HTTPS/SSL, MAC filter
- Dynamic ARP Inspection, Link detection

#### Management:

CLI via console port or Telnet, Web management, SNMP v1/v2c/v3  
 Supports RMON (groups 1, 2, 3 and 9), Supports BOOTP, DHCP for IP address assignment  
 DHCP Snooping, DHCP option (66, 67), SNMP, event/error log, system log  
 Cable diagnostics, ATC traffic control, Delay reload, sFlow, CPU Process Utilization  
 Cable Diagnostic, IP Clustering

#### L3:

- Host table: 8K
- Route table: 8K
- Static route table: 512
- Multicast table: 1K
- Unicast routing:
  - Static unicast routes
  - RIP v1/v2
  - OSPF
  - BGP
- Multicast routing:
  - PIM-DM
  - PIM-SM
  - IGMP v1/v2/v3
  - IGMP v3 proxy

IP Redundancy, Proxy ARP, UDP Helper

#### Ease of Use:

##### Firmware and Configuration:

- Dual firmware images
- Firmware upgrade via TFTP/FTP/Xmodem
- Multiple configuration files
- Configuration file upload/download via TFTP/FTP server

## Performance

#### Backplane (Gbps):

Switching Capacity: 128 Gbps

Forwarding Rate: 95.2 Mpps

#### MAC Address Table:

16K



**Data Transfer Rate:**

10/100/1000Mbps

**Packet Forwarding Rate:**

1000Mbps port - 1,488,000pps

100Mbps port - 148,000pps

10Mbps port - 14,880pps

**Jumbo Frame (K):**

9K

**Environment**

**Temperature (°C):**

Operating: 0°C ~ 50°C

Storage: -40°C ~ 70°C

**Humidity (Non-condensing):**

Operating: 5 ~ 95%

**Deployment:**

19-inch rack-mountable

**Physical Specifications**

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

440 x 415 x 44 mm

**Weight (g):**

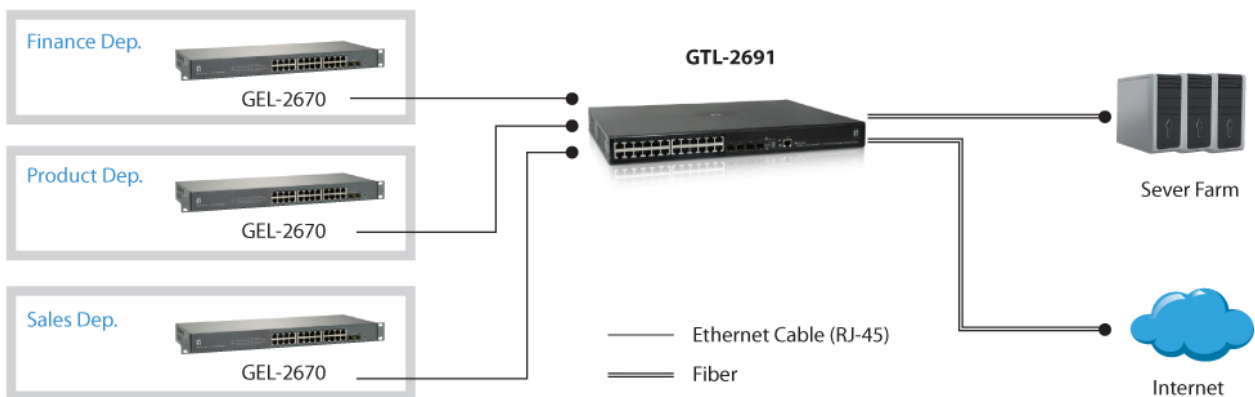
5700g

**Others**

**Approval and Compliance:**

FCC Part 15 Class A, CE, RoHS

**Diagram**



**Order Information**

GTL-2691

**Package Contents**

GTL-2691

## Optional Accessory



**ACP-03K2**  
30cm Stacking Cable



**ACP-13K2**  
130cm Stacking Cable



**L3C-0030**  
30cm Stacking Cable



**L3C-0130**  
130cm Stacking Cable



**MDU-0162**  
10GE XFP Module



**MDU-0163**  
10G SFP-Plus Module



**RPS-04A2**  
Redundant Power Supply Unit, 4 supplies of 150W

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