



GTL-2691 Έκδοση υλικού (h/w): 1

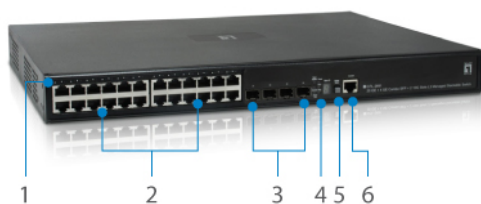
! Modules are to be ordered separately.

## 20 GE + 4 GE Combo SFP + 2 10G Slots L3 Managed Stackable Switch

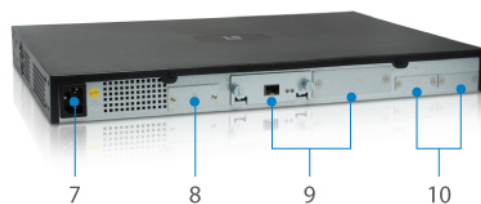
The LevelOne GEL-2691 is a Layer 3 Managed switch with 24 x 1000Base-T ports associated with 4 x Gigabit SFP (Small Form Factor Pluggable) slots + 2 optional 10 Gigabit Ethernet Slots for SFP/XFP. This switch is also 19-inch rack-mountable and 1 x redundant power supply connector, which provides convenient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

### Βασικά χαρακτηριστικά

- 24 θύρες Gigabit Ethernet με 4 κοινόχρηστες υποδοχές SFP και 2 πρόσθετες θύρες 10G
- Multicast routing IGMP V1/V2/V3, MLD
- Υποστηρίζει δυνατάτητες αναμετάδοσης DHCP με πρωτόκολλο Layer 3
- Έλεγχος ταυτότητας (IEEE 802.1X) βάσει θύρας με Λίστα Ελέγχου Πρόσβασης (Access Control List - ACL) που αποτελείται από έως και 256 καταχωρήσεις για απλή ασφάλεια δικτύου
- Spanning Tree Protocol (STP) (IEEE 802.1d/w/s) και κατοπτρισμός θυρών (IEEE 802.3ad) για αυτόματες συγκεντρώσεις θυρών
- IEEE 802.1p QoS με 8 ουρές προτεραιότητας

- Διαχείριση και ανάπτυξη σε λειτουργία δικτύου IPv6
- Παρέχει έλεγχο QoS βάσει IP DSCP για προτεραιότητες κίνησης και διαχείριση εύρους ζώνης για προχωρημένους

## Προδιαγραφές

### System Specifications

#### 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

#### 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)
- IEEE802.1V 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)

### 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
- IEEE 802.1Q 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%

### Physical Specifications

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

440 x 415 x 44 mm

#### Weight (g):

5700g

### Others

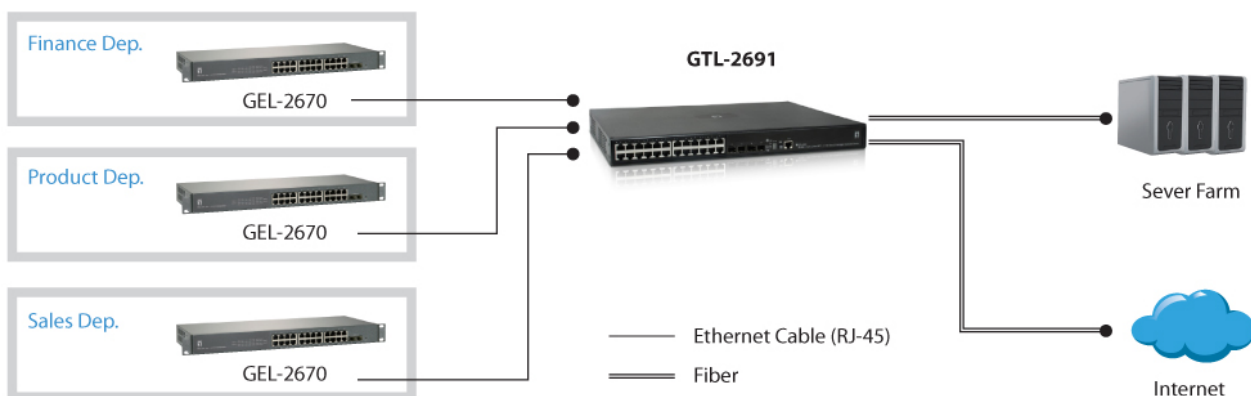
#### Approval and Compliance:

FCC Part 15 Class A, CE

#### Deployment:

19-inch rack-mountable

## Διάγραμμα



## Order Information

GTL-2691

## Περιεχόμενα συσκευασίας

GTL-2691

## Παρελκόμενα



**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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