



20 GE + 4 GE Combo SFP + 2 10GE XFP Module Slot L3 SNMP Stackable Switch



GTL-2690

H/W Version: 1

LevelOne GTL-2690 is a Gigabit Ethernet Layer 3 stackable switch with 20 1000BASE-T Gigabit Ethernet ports, 4 Gigabit Ethernet RJ-45 Combo ports which associated with SFP (Small Form Factor Pluggable) slots, and plus 2 slots for optional 10GE Uplink modules. GTL-2690 is ideal for aggregating servers in the distribution layer of three-tier networks, providing high performance, wire speed L2 switching and L3 routing. It is also an excellent choice as a small enterprise core switch for Gigabit to the Desktop migration.

Performance and Scalability

GTL-2690 provides 2 optional 10 Gigabit Ethernet module slots for 10G uplink to fulfill any bandwidth-eager customer. Optional 10 Gigabit Ethernet XFP transceivers can be chosen for different distance fiber uplink. It also provides two stacking ports for hardware stacking of up to 8 units. Features close loop stacking for resilient stacking link.

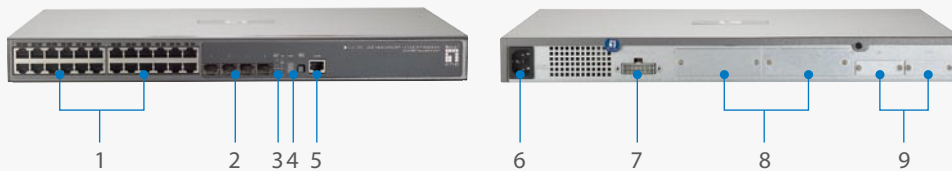
Comprehensive QoS

8 egress queues per port enable differentiated management of up to 8 traffic types. Traffic is prioritized according to 802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video. Bidirectional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources.

L3 Features

GTL-2690 delivers high-performance hardware based IP routing. RIP and OSPF provides dynamic routing by exchange routing information with other Layer 3 switches or routers. DVMRP*, PIM-DM*, PIM-SM* Multicast Routing Protocols send IP multicast traffic from one subnet to another. VRRP prevents your system from failing by dynamically backing up multiple L3 switches for routing.

* Firmware update will be released in the future



- 1. Gigabit RJ-45 Ports
- 2. SFP Slots
- 3. System Status LEDs
- 4. Stack ID
- 5. Serial Console Port
- 6. Power Socket
- 7. Redundant Power Socket
- 8. 10G Module Slots
- 9. Hardware Stacking Ports

Key Features

- 20 RJ-45 10/100/1000Base-T + 4 Combo (RJ-45/SFP) GE ports
- 2 stacking ports for hardware stacking up to 320Gbps throughput
- L3 hardware stacking up to 8 units to a maximum of 200 ports
- Robust IPv6 routing and management: PIM-DM; PIM-SM; DVMRP; IGMP
- Advanced QoS for marking, classification, and scheduling to deliver best-in-class performance for data, voice, and video traffic at wire speed

Works Well With



FGL-2870
24 FE + 4 GE Combo SFP
L2 SNMP Switch



GEL-2870
24 GE + 4 GE Combo SFP
L2 SNMP Switch



Technical Specification

Physical Ports

20 RJ-45 10/100/1000Base-T ports
 4 Combo GE ports (RJ-45/SFP)
 2 optional I/O Slots for 10G uplink
 2 Hardware Stacking Ports
 1 RJ-45 console port
 1 Redundant Power Supply Connector

Performance

Switching Capacity: 136Gbps
 Forwarding Rate: 101.2Mpps
 MAC Address Table Size: 8K
 Packet Buffer Size: 2MB

L2 Features

Auto-negotiation for port speed and duplex mode
 Flow Control: IEEE 802.3x & Back-Pressure
 Spanning Tree Protocol:
 IEEE 802.1D Spanning Tree Protocol (STP)
 IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
 IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)

VLANs:

Supports 4K IEEE 802.1Q VLANs, port-based VLANs, GVRP
 Private VLAN

Link Aggregation:

Static Trunk, IEEE 802.3ad Link Aggregation Control Protocol

Trunk groups: 8

Trunk links: 2~8 for Gigabit Ethernet port
 Trunk links: 2~4 for 10 Gigabit Ethernet port

IGMP Snooping: IGMP v1, v2 and v3* snooping and IGMP querier

L3 Features

2K IP Address entries
 512 static routes
 ARP
 Multi-netting, Super-netting (CIDR)
 RIPv1, RIPv2
 OSPF
 DVMRP*, PIM-DM*, PIM-SM*
 VRRP
 IPv6 hardware IP routing, future firmware upgrade
 Policy based routing
 DHCP/BootP relay, DHCP server

QoS Features

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 scheduling
 Port Rate Limiting

Security

Port Security
 IP Source Guard*
 Supports IEEE 802.1X port-based and MAC based access control
 RADIUS authentication
 Access Control List
 SSH

Management

Switch Management:

CLI via console port or Telnet
 WEB management
 SNMP v1, v2c, v3

Firmware & Configuration:

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

Supports RMON (groups 1, 2, 3 and 9)

Supports BOOTP, DHCP for IP address assignment

DHCP Snooping*

DHCP option 82*

Supports SNTP

Event/Error Log/Syslog

IPv6:

SNMP/HTTP/Telnet/SSH/ICMP/RADIUS/TACACS+/SMTP/ACL/
 Dual Stack/Neighbor discover/QoS remapping

Mechanical

Dimensions (H x W x D): 4.4 x 44 x 41.5 cm (1RU)

LED Indicators: Port, Uplink, System, Diagnostic,

Safety

CSA/NRTL (UL60950, CSA 22.2.No 60950-00)

TUV/GS (EN60950)

CB

Electromagnetic Compatibility

CE Mark

FCC Class A

VCCI Class A

Environmental Specifications

Temperature:

IEC 68-2-14

0°C to 50°C (Standard Operating)

-40°C to 70°C (Non-Operating)

Humidity: 5% to 95% (Non-condensing)

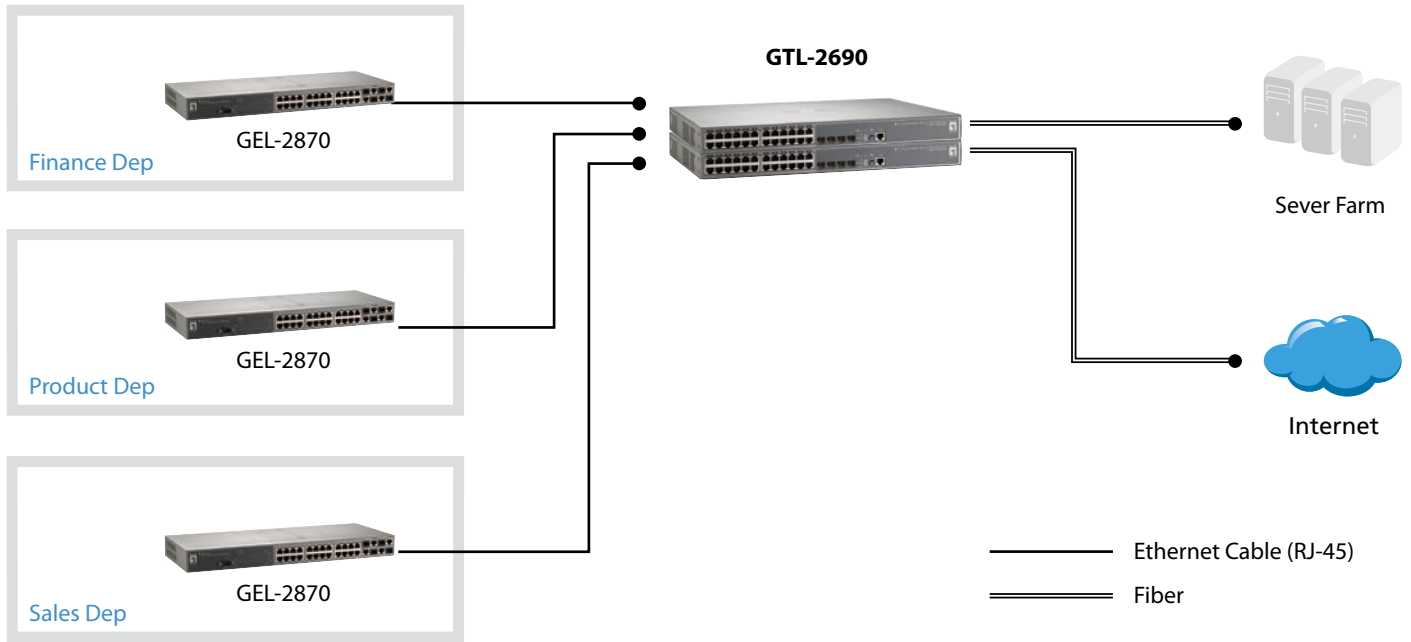
Vibration: IEC 68-2-36, IEC 68-2-6

Shock: IEC 68-2-29

Drop: IEC 68-2-32

* firmware update will be released in the future

Product Diagram



Order Information

GTL-2690: 20 GE + 4 GE Combo SFP + 2 10GE XFP Module slot L3 SNMP Stackable Switch

Package Contents

GTL-2690
 Mounting Accessory (for 19" Rack Shelf)
 RS-232 cable
 Power Cord
 CD User Manual

Optional Accessories



GVT-0300
 1.25Gbps SFP Transceiver,
 Duplex LC connector (550m)



GVT-0301
 1.25Gbps SFP Transceiver,
 Duplex LC connector (10km)



GVT-0302
 1.25Gbps SFP Transceiver,
 Duplex LC connector (80km)



SFP-3001
 1.25Gbps SFP Transceiver,
 Duplex LC connector (550m)



SFP-3211
 1.25Gbps SFP Transceiver,
 Duplex LC connector (10km)



SFP-3611
 1.25Gbps SFP Transceiver,
 Duplex LC connector (80km)



SFP-3111
 1.25Gbps SFP Transceiver,
 Duplex LC connector, MLX
 (2km)



SFP-3411
 1.25Gbps SFP Transceiver, SM,
 EZX, Duplex LC connector
 (120km)



SFP-3711
 1.25Gbps SFP Transceiver,
 SM, EZX, Duplex LC
 connector (120km)



SFP-9221
 1.25G BIDI, (SM 10km
 1310/1550), Simplex LC



SFP-9231
 1.25G BIDI, (SM 10km
 1550/1310), Simplex LC



SFP-9321
 1.25G BIDI, (SM 20km
 1310/1550), Simplex LC



SFP-9331
 1.25G BIDI, (SM 20km
 1550/1310), Simplex LC



SFP-9421
 1.25G BIDI, (SM 40km
 1310/1550), Simplex LC



SFP-9431
 1.25G BIDI, (SM 40km
 1550/1310), Simplex LC

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