



## KILBY 52-Port L3 Lite Managed Gigabit PoE Switch, 4 x SFP, 48 PoE Outputs, 370W

The LevelOne GEP-5271, a L3 Lite Managed PoE Switch with 48 ports of Gigabit RJ45 PoE with 4 100M/1G uplink SFP ports. This switch is offering full suite of L2 management features, better PoE functionality with 370W PoE power budget and usability, The switch also supports the most advanced IPv6 management, IPv6 security, and IPv6 multicast control in accordance with the growth of IPv6 deployment. ISPs can expand their services for home to business users by providing a more reliable and resilient network (ITU-T G.8032 ERPS), L2 VPNs, and advanced OAM (Operations, Administration, and Maintenance) functions to ensure service-level agreements. including advanced L3 features such as Static Route and RIP v1/v2 that delivers better cost performance and lower total cost of ownership in enterprise networks via fiber or copper connections.

### Key Features

- 48 Gigabit Ethernet ports and 4 Gigabit SFP slots
- IEEE 802.3af/at PoE compliant to simplify deployment and installation
- Total PoE power budget: 370W, up to 30W per port
- Supports VLAN (Port-based, Protocol-based, Private, Q-in-Q, Tag-based) and GVRP
- Supports Operations, Administration, and Maintenance (OAM) mechanisms
- Ethernet Ring Protection Switching (ERPS) for Ethernet ring topologies with sub-50 ms failover capabilities
- IEEE 802.1d/w/s Spanning Tree Protocol (STP) and port mirroring
- QoS control for traffic prioritization and bandwidth management
- Supports IPv4/IPv6 network operation

### Specifications

#### System Specifications

##### Standards:

IEEE 802.3 100BASE-FX  
 IEEE 802.3z (1000BASE-SX/LX/LHX/ZX) transceivers  
 IEEE 802.3x for full-duplex mode  
 IEEE 802.1D Spanning Tree Protocol (STP)  
 IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)  
 IEEE 802.1s Multiple Spanning Tree Protocol (MSTP), 64 instances  
 IEEE 802.1Q VLAN  
 IEEE 802.1v protocol-based VLAN  
 IEEE 802.3ad Link Aggregation Control Protocol  
 IEEE 802.1p CoS  
 IEEE 802.1X port based and MAC based authentication  
 IEEE 802.3az Energy-Efficient Ethernet (EEE)  
 IEEE 802.3ah Link



IEEE 802.1ag Connectivity Fault Management

**Memory:**

32 MB

**Buffer Memory:**

256MB

**Port:**

48 x 10/100/1000Base-T RJ-45 PoE-Plus Ports

4 x 100/1000Base-X SFP Slots

1 x RJ45 Console Port

**Transmission Method:**

Store-and-Forward

**Power Input:**

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

**Power Consumption:**

480W

**Backplane (Gbps):**

104Gbps

**MAC Address Table:**

16K

**Data Rate:**

10/100/1000Mbps

## Features

**General:**

Virtual Local Area Network (VLAN):

802.1Q tag-based VLAN - up to 4096 VLAN IDs; Port-based VLAN; MAC-based VLAN

Supports 4K VLAN

Port-based VLAN

IEEE 802.1Q VLAN

GVRP (256 VLAN)

IEEE 802.1v protocol-based VLAN IP Subnet-based VLAN MAC-based VLAN

Traffic Segmentation

L2 Virtual Private Network (Q-in-Q):

Selective Q-in-Q

VLAN Translation

L2 Protocol tunneling (xSTP, CDP, VTP & PVST+, LLDP) CDP/PVST+ Filtering

Link Aggregation:

Static Trunk

IEEE 802.3ad Link Aggregation Control Protocol Trunk groups: 16, up to 8 GE ports per group

Load Balancing: SA+DA, SA, DA, SIP+DIP, SIP, DIP

Quality of Service (QoS):

Priority Queues: 8 hardware queues per port Traffic classification:

IEEE 802.1p CoS IP Precedence DSCP

Traffic Scheduling:

Strict Priority

Weighted Round Robin Strict + WRR

Diffserv:

Ingress policy map (police rate, remark CoS) Egress policy map (police rate, remark CoS/DSCP)

Rate Limiting (Ingress and Egress, per port base): GE: Resolution 64 Kbps ~ 1,000 Mbps

Traffic Scheduling:

Strict Priority

Weighted Round Robin

Strict + WRR

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#### 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), 64 instances

#### IPv6 Features

IPv4/IPv6 Dual Protocol stack  
IPv6 Address Types Stack: Unicast  
IPv4/IPv6 Dual Protocol stack  
IPv6 Address Types Stack: Unicast IPv6 Neighbor Discovery:  
Duplicate address  
Address resolution  
Unreachable neighbor detection  
Stateless auto-configuration Manual configuration Remote IPv6 ping  
IPv6 Telnet support  
HTTP over IPv6  
SNMP over IPv6  
IPv6 Syslog support  
IPv6 TFTP support  
IPv6 MLD filter and throttling IPv6 ND snooping  
MLD Snooping v1/v2 IPv6 source guard DHCPv6 snooping MVR6

#### IPv6 Neighbor Discovery:

Remote IPv6 ping  
IPv6 Telnet support  
HTTP over IPv6  
SNMP over IPv6  
IPv6 Syslog support  
IPv6 TFTP support  
IPv6 MLD filter and throttling  
IPv6 ND snooping  
DHCPv6 snooping  
DHCP client for IP address assignment  
DHCP dynamic provision option 66,67  
DHCP Snooping  
DHCP Option 82  
DHCP Option 82 Relay  
Port mirroring (many source ports to one destination port. One source port to one destination port only)

#### IGMP Snooping:

IGMP v1/v2/v3 Snooping  
IGMP Proxy Reporting  
IGMP Filtering  
IGMP Throttling  
IGMP Immediate Leave  
IGMP Querier  
IGMP mrouter-forward mode IGMP router-alert-option-check IGMP router-port-expire-time IGMP tcn-flood  
IGMP tcn-query-solicit  
IGMP unregistered-data-flood

**PoE:**

Power Budget: Max. 370W

Power Output: Up to 30W per port

Protection: Circuit protection to prevent power interference between ports

Management: PoE status, Per port power priority setting, PD classification identity

Pin Assignment: 1/2(+), 3/6(-)

**Security:**

Management Security:

Login Security

RADIUS authentication

RADIUS accounting

TACACS + authentication

TACACS + accounting

TACACS + authorization

Management Interface Access Filtering (SNMP, Web, Telnet) SSH (v1.5/v2.0) for security Telnet

SSL for HTTPS SNMPv3

Network Security:

IPv6 ACL

Port security

PPPoE IA

Dynamic ARP Inspection

CPU guard

CPU/Memory threshold and alarm Denial of Service Protection:

echo-charge smurf tcp-flooding tcp-null-scan tcp-syn-fin-scan tcp-xmas-scan udp-flooding win-nuke

Storm Control: Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port

ACLs: Suppoer L2/L3/L4 MAC Access control list

User Security for Enterprise:

IEEE 802.1X port based and MAC based authentication Dynamic VLAN Assignment, Dynamic QoS assignment MAC authentication

Web authentication

Voice VLAN

Guest VLAN

User Security for ISP/MSO:

L2/L3/L4 Access Control List

MAC Access control list (Source/Destination MAC, Ether type, Priority ID/ VLAN ID)

IP standard access control list (Source IP)

IP extended access control list (Source/Destination IP, Protocol, TCP/UDP port number) DHCP Snooping

DHCP Option 82

DHCP Option 82 Relay IP Source Guard

**Management:**

Switch Management:

CLI via console port or Telnet Web management

SNMP v1, v2c, v3

Firmware upgrade via TFTP/HTTP/FTP/SFTP server

Dual images

Multiple configuration files

Configuration file upload/download via TFTP/HTTP/FTP/SFTP server Firmware auto upgrade

IP clustering (32 members) Firmware & Configuration:

RMON (groups 1, 2, 3 and 9)

BOOTP, DHCP client for IP address assignment

DHCP dynamic provision option 66,67

SNTP/NTP

DNS client

Event/Error Log

Syslog  
SMTP  
Supports LLDP (802.1ab)  
sFlow v4, v5  
Cable diagnostics  
(Optional) ECView Pro, a powerful network management software that maximizes the managed capabilities of Edgecore devices with:  
Topology management  
Performance management  
Configuration management  
Event management  
SNMP management

**L3:**  
IPv4 Static Route  
RIP v1/v2  
Traceroute  
Traceroute6

## Performance

**Packet Forwarding Rate:**

77.4 Mbps

**Jumbo Frame (K):**

12K

## Environment

**Operating Temperature (°C):**

0°C ~ 50°C

**Operating Humidity (Non-condensing):**

10% ~ 90%

**Storage Temperature (°C):**

-40°C ~ 70°C

**Storage Humidity (Non-condensing):**

10% ~ 90%

## Physical Specifications

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

440 x 330 x 440 mm

**Weight (g):**

4397g

## Approval and Compliance

**EMI/EMS:**

CE

**Safety:**

FCC Class A

**Environmental Test:**

RoHS

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## Order Information

GEP-5271



## Package Contents

GEP-5271  
Power Cord  
Console Cable  
19" Rack Mount Kit  
Rubber Feet  
Quick Installation Guide  
Resource CD (User Manual, QIG)

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