



GEP-5271 Version: 1

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
- Virtual stacking supports up to 36 switches in a single logical stack for unified management, monitoring and configuration

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

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

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 44 mm

Weight (g):

4397g

Approval and Compliance

EMI/EMS:

CE

Safety:

FCC Class A

Environmental Test:

RoHS

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)

No liability or responsibility for any errors or omissions in the content.
Specifications are subject to change without notice.
All mentioned brand names are registered trademarks and property of their owners.
Copyright © Digital Data Communications GmbH, Germany. All Rights Reserved.