



# 26-Port Web Smart Gigabit PoE Switch, 2 x Gigabit SFP, 24 PoE Outputs, 370W

The LevelOne GEP-2652, the latest web smart generation, is equipped with 24 PoE ports and 2 Gigabit SFP ports. It offers powerful Layer2 capabilities, enhanced PoE functionality and a total PoE budget of 370W. The switch also supports advanced IPv6 management, IPv6 security and IPv6 multicast control to accommodate the growth of IPv6 deployment. Moreover, at an exceptional price/performance ratio. The PoE-enabled GEP-2652 has IEEE 802.3af/at certification, eliminating the challenges associated with standardized devices. It is therefore ideal for companies that want to operate VoIP telephones, wireless access points or network cameras. The GEP-2652 supports up to 30W output power per PoE port, giving you power distribution flexibility for a wide range of PoE PD devices. Adjust your network infrastructure as your business grows and save operating costs with easier management.

## **Key Features**

- 24 Gigabit PoE ports and 2 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 port-based VLAN, IEEE 802.1Q VLAN Tagging and GVRP
- IEEE 802.1d/w/s Spanning Tree Protocol (STP) and port mirroring
- Supports IPv4/IPv6 network operation
- Supports unknown unicast / broadcast / multicast storm control
- MLD, Telnet, SNMP V1, V2c & V3, RMON, Web Browser, and TFTP Management
- IP Multicast Filtering through IGMP Snooping V1 / V2 / V3
- Dynamic ARP Inspection (DAI) protects switches against ARP spoofing

# **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),16 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 802.1p CoS IP Precedence DSCP

• IEEE 802.1ag Connectivity Fault Management

#### Protocols:

Layer 2 Tunneling Protocol (STP, LACP, UDLD)

#### Memory:

8MB

#### **Buffer Memory:**

• 128MB

#### Port:

- 24 x 10/100/1000Mbps Auto-Negotiation ports
- 2 x 1000Mbps SFP ports
- 1 x RJ45 Console Port

#### Button/Knob:

• 1 x Reset Button

#### Transmission Method:

Store-and-Forward

#### Power Input:

100 to 240 V, 50/60 Hz, Maximum: 6.5A

#### Power Consumption:

• 435 W

#### Backplane (Gbps):

• 52 Gbps

#### MAC Address Table:

• 8 K

#### Operating Temperature (°C):

0°C to 45°C

## Operating Humidity (Non-condensing):

• 10% to 90%

#### Storage Temperature (°C):

• -40°C to 70°C

## Storage Humidity (Non-condensing):

• 5% to 90%

#### **Features**

## General:

## L2 Features

- Spanning Tree Protocol
- 802.1D Spanning Tree Protocol (STP)
- 802.1w Rapid Spanning Tree Protocol (RSTP)
- 802.1s Multiple Spanning Tree Protocol (MSTP), 16 instances
- MAC Address Table
- Up to 8K entries
- 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
- GVRP
- 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, LLDP)
- Link Aggregation

- Quality of Service (QoS): Priority Queues: 8 hardware queues per port Traffic classification:
- 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 16 Kbps ~ 1,000 Mbps

#### L2 Multicast Features

- IGMP Snooping
- IGMP v1/v2/v3 Snooping
- IGMP Proxy Reporting
- IGMP Filtering
- IGMP Throttling
- IGMP Immediate Leave
- IGMP Querier
- MLD Snooping v1/v2

#### **IPv6** Features

- Native IPv6
- IPv4/IPv6 Dual Protocol stack
- IPv6 Address Types Stack: Unicast
- IPv4/IPv6 Dual Protocol stack
- Duplicate address
- Remote IPv6 ping
- IPv6 Telnet support
- HTTP over IPv6
- SNMP over IPv6
- IPv6 MLD filter and throttling
- MLD Snooping v1/v2
- · DHCPv6 snooping

#### PoE:

- Power Budget: Max. 370W
- Power Output: Up to 30W per port
- Pin Assignment: 1/2(+), 3/6(-)

#### Security:

- Port Security (MAC Flooding Attack / MAC Spoofing Attack Prevention)
- DoS Attack Protection
- 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
- Dynamic ARP Inspection
- CPU guard
- · echo-chargen 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

Page 3 of 5

• 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

www.leeel1&@Thentication

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:

- Web-based GUI
- CLI
- Telnet
- SNMP v1, v2c, v3
- Firmware upgrade via TFTP/HTTP server
- · Multiple configuration files
- Configuration file upload/download via TFTP/HTTP server Firmware auto upgrade
- RMON (groups 1, 2, 3 and 9)
- BOOTP, DHCP client for IP address assignment
- SNTP/NTP
- DNS client
- Event/Error Log
- Syslog
- SMTP
- Supports LLDP (802.1ab)
- Cable diagnostics

## **Performance**

## Packet Forwarding Rate:

• 38.69 Mpps

#### Jumbo Frame (K):

• 9 K

## Physical Specifications

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

• 440 x 208 x 44 mm

## Weight (g):

• 3875 g

## **Approval and Compliance**

## EMI/EMS:

• CE

#### **Environmental Test:**

RoHS

#### **Order Information**

GEP-2652

# **Package Contents**

GEP-2652
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.

www.level1.com Page 5 of 5