



—— DGS-1224T

24-Port Copper Gigabit Smart Switch With 2 Combo SFP (Mini GBIC)

The DGS-1224T copper Gigabit Smart Switch presents a cost-effective solution for the small and medium business to implement Gigabit Ethernet packet switching with easy fine-tuning of network performance and security. This switch comes with 24 10/100/1000BASE-T copper Gigabit ports and 2 combo SFP (Mini GBIC) ports for flexible fiber Gigabit connection. Port trunks are provided for server deployment and network backbone attachment, while functions important for bandwidth-intensive applications such as Priority Queues and VLANs are supported to enable you to implement Quality of Service (QoS) and security without having to go through complex network management usually found in other managed switches.

24 Copper Gigabit Ports

24 Gigabit ports provide an inexpensive alternative solution to fiber-optic. Using your existing low-cost Cat. 5 copper twisted-pair wires as the transmission media, these ports allow you to instantly upgrade your servers to Gigabit capability without requiring you to install new, expensive fiber cables. All ports support 10/100/1000Mbps network speed auto-sensing, full/half duplex auto-negotiation and auto MDI/MDIX plug-and-play.

2 Combo SFP Slots for Flexible Fiber Connection

2 combo SFP (Mini GBIC) slots are provided for flexible fiber connection. You can select to install optional transceiver modules in these slots for short, medium or long-distance fiber backbone attachment. Use of the SFP will disable their corresponding built-in 10/100/1000BASE-T connections.

Port Trunks for Aggregated Bandwidths

Ports can be combined together to create multi-link load-sharing aggregated bandwidths to a server or a network

backbone. To expand the network, you can also make use of the port trunks to eliminate bottlenecks between the cascaded switches. The switch allows you to combine between 2 and 4 ports per trunk to create multiple port trunks.

VLANs for Enhanced Security & Performance

The switch supports VLANs to let you improve security and bandwidth utilization by limiting the broadcast domains and confining intra-group traffic within their segments. To segment up the network, VLAN-supported workstations and servers that are connected to the switch can be grouped into different Virtual LANs (VLANs).

Quality of Service Support

The switch supports Layer 2 802.1p Priority Queue control to prioritize network packets. Classification of users' data priorities can be based on a data packet Priority Queue. This QoS function support allows you to run bandwidth-intensive and delay-sensitive applications and to attach video servers to the switch for video conference.

Key Features

- 24 10/100/1000BASE-T ports for copper Gigabit connection
- 2 combo SFP (Mini GBIC) for flexible fiber Gigabit connection
- Auto MDI/MDIX cross over for all twisted-pair ports
- 802.3x Flow Control for protection against data loss
- Port trunks for server/network backbone attachments
- Port-based VLAN support to enhance security/network performance
- 802.1p Priority Queues, port-based QoS
- Easy configuration through web-based management
- Standard rack-mount size

DGS-1224T

Technical Specifications

General

Standards

- IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)
- IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper)
- IEEE 802.3z Gigabit Ethernet (fiber)
- ANSI/IEEE 802.3 NWay auto-negotiation
- IEEE 802.3x Flow Control

Number of Ports

- 24 10/100/1000BASE-T ports
- 2 combo SFP (Mini GBIC) *

* Use of the SFP will disable their corresponding 10/100/1000BASE-T connections

Mini GBIC (SFP) Support

- IEEE 802.3z 1000BASE-LX (DEM-310GT transceiver)
- IEEE 802.3z 1000BASE-SX (DEM-311GT transceiver)
- IEEE 802.3z 1000BASE-LH (DEM-314GT transceiver)
- IEEE 802.3z 1000BASE-ZX (DEM-315GT transceiver)

Protocol

CSMA/CD

Data Transfer Rates

- Ethernet:
 - 10Mbps (half duplex)
 - 20Mbps (full duplex)
- Fast Ethernet:
 - 100Mbps (half duplex)
 - 200Mbps (full duplex)
- Gigabit Ethernet:
 - 2000Mbps (full duplex)

Topology

Star

Network Cables

- UTP Cat. 5, Cat. 5e (100 m max.)
- EIA/TIA-568 100-ohm STP (100 m max.)

Full/half Duplex

- Full/half duplex for 10/100Mbps speeds
- Full duplex for Gigabit speed

Media Interface Exchange

Auto MDI/MDIX adjustment for all twisted-pair ports

LED Indicators

- Per port: Link/Act, Speed
- Per device: Power/CPU

Software

VLAN

- Port-based VLAN
- Maximum number of VLAN: 24 per device

Quality of Service (QoS)

- 802.1p Priority Queues
- Maximum number of queues: 2
- Port-based VLAN

Port Trunks

- 2 or 4 ports per trunk
- 3 port trunks per device

Management & Configuration

- Web-based configuration
- Windows-based utility
- Configuration reset through software or hardware (reset button)

Performance

Transmission Method

Store-and-forward

MAC Address Table

8K entries per device

MAC Address Learning

Automatic update

Packet Filtering/Forwarding Rates (half duplex)

Maximum 1,488,095 pps per port

RAM Buffer

400KB per device

Gigabit Smart Switch

Physical & Environmental

AC Input

100 to 240 VAC 50/60Hz internal universal power supply

Operating Temperature

0° to 40 °C

Storage Temperature

-10° to 70 °C

Operating Humidity

10% to 90% non-condensing

Storage Humidity

5% to 90% non-condensing

Dimensions

440 (W) x 210 (D) x 44 (H) mm (device only)
19-inch standard rack mounting size

Weight

2.993 kg (device only)

Emission (EMI)

- FCC Class A
- CE Class A

Safety

CUL



Ordering Information

Gigabit Smart Switch

DGS-1224T 24 10/100/1000BASE-T ports, 2 combo SFP (Mini GBIC)

Optional SFP Transceiver

DEM-310GT	SFP transceiver for 1000BASE-LX, single-mode fiber, max. distance 10km, 3.3V
DEM-311GT	SFP transceiver for 1000BASE-SX, multi-mode fiber, max. distance 550m, 3.3V
DEM-314GT	SFP transceiver for 1000BASE-LHX, single-mode fiber, max. distance 35km, 3.3V
DEM-315GT	SFP transceiver for 1000BASE-ZX, single-mode fiber, max. distance 80km, 3.3V

D-Link®

Specifications subject to change without prior notice.
D-Link is a registered trademark of D-Link Corporation/D-Link System Inc. All other trademarks belong to their proprietors.

U.S.A	TEL: 1-714-885-6000	FAX: 1-866-743-4905
Canada	TEL: 1-905-8295033	FAX: 1-905-8295223
Europe	TEL: 44-20-8731-5555	FAX: 44-20-8731-5511
Germany	TEL: 49-6196-77990	FAX: 49-6196-7799300
France	TEL: 33-1-30238688	FAX: 33-1-30238689
Benelux	TEL: 31-10-282-1445	FAX: 31-10-282-1331
Italy	TEL: 39-2-2900-0676	FAX: 39-2-2900-1723
Iberia	TEL: 34-93-4090770	FAX: 34-93-4910795
Sweden	TEL: 46-(0)8564-61900	FAX: 46-(0)8564-61901
Norway	TEL: 47-22-309075	FAX: 47-22-309085
Denmark	TEL: 45-43-969040	FAX: 45-43-424347
Finland	TEL: 358-9-2707-5080	FAX: 358-9-2707-5081
Singapore	TEL: 65-6774-6233	FAX: 65-6774-6322
Australia	TEL: 61-2-8899-1800	FAX: 61-2-8899-1868
Japan	TEL: 81-3-5434-9678	FAX: 81-3-5434-9868
China	TEL: 86-10-8518-2533	FAX: 86-10-8518-2250
India	TEL: 91-022-652-6696	FAX: 91-022-652-8914
Middle East (Dubai)	TEL: 9714-8834234	FAX: 9714-8834394
Turkey	TEL: 90-212-335-2553	FAX: 90-212-335-2500
Egypt	TEL: 202-414-4295	FAX: 202-415-6704
Israel	TEL: 972-9-9715700	FAX: 972-9-9715601
Chile	TEL: 56-2-232-3185	FAX: 56-2-232-0923
Brasil	TEL: 55-11-55039320	FAX: 55-11-55039321
South Africa	TEL: 27(0)1266-52165	FAX: 27(0)1266-52186
Russia	TEL: 7-095-744-0099	FAX: 7-095-744-0099#350
Taiwan	TEL: 886-2-2910-2626	FAX: 886-2-2910-1515
D-Link Corp.	TEL: 886-2-2916-1600	FAX: 886-2-2914-6299



RECYCLABLE
Rev. 01 (Dec. 2003)