



DES-3250TG

Rack-mount managed switch with 48 10/100Mbps Fast Ethernet ports and 2 shared copper/fiber mini GBIC ports.

48-port Managed 10/100Mbps Switch With 2 Combo Copper Gigabit /Mini GBIC

This SNMP managed switch provides 48 10/100Mbps Fast Ethernet ports and 2 Combo Copper Gigabit /Mini GBIC connections, allowing 48 workstations and servers to cost-effectively run on your existing twisted-pair network cable. The Mini GBIC slots allow flexible connection to the fiber backbone. Advanced features like port trunking, VLANs and priority queues are provided, allowing a department to effectively deploy a bottleneck-free switching network for easy integration with a larger enterprise or campus network.

48 10/100Mbps Ports for Workstations

The switch provides 48 10/100Mbps ports supporting auto-sensing and auto-negotiation of network speeds and full/half duplex. These ports can connect to workstations and print servers, giving each a dedicated bandwidth. All ports support auto MDI/MDIX uplink, allowing you to connect to workstations, servers, or other switches from any port without the need to change your usual straight-through twisted-pair cables.

Copper Gigabit for Servers

The copper Gigabit provides 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. The ports support 10/100/1000Mbps network speed auto-sensing, full/half duplex and auto MDI/MDIX.

2 Mini GBIC Slots for Flexible Fiber Connection

2 mini GBIC slots are provided for flexible fiber connection. You can select to install an optional transceiver module in the Mini GBIC slot for 1000BASE-SX short/medium-distance or 1000BASE-LX long-distance fiber backbone attachment. Use of the mini GBIC will disable their corresponding built-in copper 10/100/1000Mbps copper connections.

VLANs for Enhanced Security & Performance

VLANs improve security and bandwidth utilization by limiting the broadcast domains and confining intra-group traffic within their segments. To segment up the network, nodes supporting

IEEE 802.1Q VLAN Tagging connected to the switch can be grouped into different Virtual LANs (VLANs). The switch also supports GVRP (GARP VLAN Registration Protocol) for automatic VLAN configuration distribution.

Priority Queues for QoS

The switch supports Layer 2 802.1p Priority Queue control. Each packet going through the switch can be assigned a queue priority number (in the priority bit). Packets with a higher priority number are allowed to pass first. This function support allows you to attach video servers to the switch to run delay-sensitive applications like video conference.

IGMP Snooping for Broadcast Control

The switch listens to IGMP (Internet Group Management Protocol) messages to build mapping table and associate forwarding filters. It dynamically configures the switch ports to forward IP multicast traffic only to those ports associated with multicast hosts.

Port Mirroring

This function allows you to mirror adjacent ports for the purpose of analyzing incoming and outgoing packets where packet patterns can be studied.

Port Trunks for Aggregated Bandwidths

Port trunking on 10/100Mbps ports provides an economical alternative for server connection to attain Gigabit bandwidth. Up to 8 10/100Mbps ports can be combined together to create a multi-link load-sharing aggregated bandwidth to a server.

Key Features

- 48 10/100Mbps Fast Ethernet ports
- 2 combo RJ-45/mini GBIC for flexible copper/fiber Gigabit
- Auto MDI/MDIX for all twisted-pair ports
- 802.1Q VLANs for enhanced performance and security
- QoS with 802.1p Priority Queues for multimedia applications
- IGMP snooping (multicasting) for multimedia application support
- Ether Channel Interoperable/802.3ad static mode port trunking
- 802.1D Spanning Tree for redundant backup bridge paths
- SNMP management, RMON monitoring, Telnet support, log file
- IP filtering on management interface

DES-3250TG

Technical Specifications

10/100Mbps Managed Switch

General

Standards

- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet
- IEEE 802.3z Gigabit Ethernet
- ANSI/IEEE 802.3 NWay auto-negotiation
- IEEE 802.1Q Tagged VLAN
- IEEE 802.1p Priority Queues
- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1W rapid STP*
- IEEE 802.13ad Link aggregation*
- IEEE 802.1x Network access control*

Number of Ports

- 48 10BASE-T/100BASE-TX ports
- 2 Combo RJ-45/mini GBIC ports for Copper Gigabit or fiber Gigabit

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

- 10BASE-T:
 - UTP Cat. 3, 4, 5 (100 m max.)
 - EIA/TIA-586 100-ohm STP (100 m max.)
- 100BASE-TX, 1000BASE-T:
 - UTP Cat. 5, Cat. 5e (100 m max.)
 - EIA/TIA-568 100-ohm STP (100 m max.)
- IEEE 802.3z:
 - Single-mode and multi-mode fiber

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 10/100Mbps port: Link/Act
- Per Gigabit port: Link/Act
- Per device: Power, Console

Performance

Transmission Method

Store-and-forward

MAC Address Table

8K entries per device

MAC Address Learning

- Automatic update

Packet Filtering/Forwarding Rates (half duplex)

- Ethernet: 14,880 pps per port
- Fast Ethernet: 148,810 pps per port
- Gigabit Ethernet: 1,488,100 pps per port

RAM Buffer

64Mbytes per device

Software

VLAN

- IEEE 802.1Q Tagged VLAN
- Number of VLANs: 255 per device (max.)

Priority Queues (QoS)

- Standard: IEEE 802.1p
- Number of queues: 4

Spanning Tree

Standard: IEEE 802.1D

Multicast

IGMP Snooping

Access Security

- VLAN based: ingress checking enable/disable
- IEEE 802.1x Port-based Network Access Control
- Port-based: disable MAC address learning per port

Others

- Classification based on T.O.S priority
- DiffServ Support*
- 802.1w Rapid Spanning Tree Support*
- SNMP V3 Support*
- Disable MAC address learning per port
- 802.1x Network access control Support*

* Functions available in next release

Configuration & Management

Management Support

- SNMP v.1, v.2c
- RMON monitoring
- Telnet
- Command Line Interface
- Log file

MIBs

- MIB-II (RFC 1213)
- Bridge MIB (RFC 1493)
- RMON MIB (RFC 1757)
- Ethernet-like MIB (RFC 2358)
- 802.1p MIB (RFC 2674)
- D-Link enterprise MIB

RMON Groups

1, 2, 3, 9 (Alarm, Statistics, History, Event)

IP Number Self-identification

Through DHCP client, Bootp client

Firmware Upgrade

TFTP

Console Port

DB-9 RS-232 DCE

Physical & Environmental

AC Input

100 - 240 VAC, 50/60 Hz
Internal universal power supply

Power Consumption

30 watts (max.)

Operating Temperature

0° - 40 °C

Storage Temperature

-40° - 70 °C

Humidity

5% - 95% non-condensing

Dimensions

441 (W) x 309 (D) x 44 (H) mm
19-inch standard rack-mount width, 1 U height

Emission (EMI)

- FCC Class A
- CE Class A
- C-Tick Class A
- CCC

Safety

CSA International



Ordering Information

10/100Mbps Managed Switch

DGS-3250TG 48 10/100Mbps ports
2 combo RJ-45/mini GBIC supporting copper
10/100/1000Mbps and fiber Gigabit

Optional Modules

DEM-310GT Single-mode 1000BASE-LX mini GBIC Gigabit Ethernet module
DEM-311GT Multi-mode 1000BASE-SX mini GBIC Gigabit Ethernet module

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U.S.A	TEL: 1-949-788-0805	FAX: 1-949-753-7033
Canada	TEL: 1-905-8295033	FAX: 1-905-8295095
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: 31-10-2045740	FAX: 31-10-2045880
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: 91-22-652-6696	FAX: 91-22-652-8914
Middle East	TEL: 9714-8834234	FAX: 9714-8834394
Turkey	TEL: 90-212-335-2553	FAX: 90-212-335-2500
Chile	TEL: 56-2-232-3185	FAX: 56-2-232-0923
Brasil	TEL: 55-11-3094-2910	FAX: 55-11-3094-2921
South Africa	TEL: 27(0)1266-52165	FAX: 27(0)1266-52186
Russia	TEL: 7-095-737-3389	FAX: 7-095-737-3390
Taiwan	TEL: 886-2-2910-2626	FAX: 886-2-2910-1515
D-Link Corp.	TEL: 886-2-2916-1600	FAX: 886-2-2914-6299

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