D-Link
Building Networks for People

8-Port Ethernet Switch

With Light Management

- **8 10/100BASE-TX Ethernet Ports**
- **Versatile Management Through "SmartConsole" or Web-Based GUI**
- **VLAN Traffic Segmentation & Priority Queue QoS**
- **Full Layer 2 Features**
- **Network Access Security**
- **Built-in MIB for SNMP Management**

FEATURES

- **8 10/100Mbps Ethernet ports for workstations**
- **Auto MDI/MDIX cross over for all twisted-pair ports**
- **802.3x Flow Control for protection against data loss**
- **Port mirroring for traffic monitoring**
- **802.1q VLAN, port-based VLAN support to enhance security/network performance**
- **Port-based QoS**
- **Easy configuration through web-based management**
- **SNMP management support**
- **Palm size**

The DES-2108 Switch presents a cost-effective solution for small workgroups for implementing Ethernet packet switching with easy fine-tuning of network performance and security. This switch provides 8 10/100BASE-TX Ethernet ports for workstation connection. 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.

8 10/100Mbps Ports for Workstations Connection. The switch provides 8 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 cross over, allowing you to connect to any node without the need to change your usual straight-through twisted-pair cables.

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 QoS function to allow you to run bandwidth-intensive and delay-sensitive applications and to attach video servers to the switch for video conference.

Port Mirroring. The switch supports port mirroring to assist network traffic monitoring. The network administrator can use this function as a diagnostic tool or debugging feature, especially when fending off an attack. It enables you to keep close track of switch performance and alter it if necessary.

Versatile Management. Switch configuration and management is through the SmartConsole Utility or a web-based GUI. SmartConsole is an easy way to access the switch from a local PC; users do not have to type in any IP address or subnet, and all switches connected on the network are displayed on the screen for instant access. The web-based GUI allows switch access from any location on the network or from a remote site, using a web-browser. It allows extensive switch configuration setting, which can be backed up for duplication in other switches.

In addition, users can also use the built-in MIB to poll the switches for information about their status and send traps of abnormal events. MIB support allows users to integrate the switches with other third-party devices for management in an SNMP environment.

Product Specifications

General

Port Standards & Functions
- IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)
- IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)
- ANSI/IEEE 802.3 NWay auto-negotiation
- IEEE 802.3X Flow Control

Number of Ports
8 10BASE-T/100BASE-TX ports

Protocol
CSMA/CD

Data Transfer Rates
- Ethernet:
  10Mbps (half duplex)
  20Mbps (full duplex)
- Fast Ethernet:
  100Mbps (half duplex)
  200Mbps (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

Media Interface Exchange
Auto MDI/MDIX adjustment for all twisted-pair ports

LED Indicators
- Per port: Link/Act, Speed (100Mbps)
- Per device: Power/CPU

Software

L2 Features
- IGMP Snooping: Supports IGMP V1/V2, Snooping, up to 64 multicast groups
- 802.1D Spanning Tree
- Port Trunk (Link Aggregation): Up to 4 groups per device and 8 ports per group
- Port mirroring: Supports one to one, many to one port mirroring

VLAN
- 802.1Q VLAN
- Port-based VLAN
- Maximum number of VLAN: 64 (static and dynamic combined) per device
- Asymmetric VLAN

Quality of Service (QoS)
- Standard: IEEE 802.1p
- Number of queues: 4

Security
- 802.1X authentication
- 802.1X port-based access control

Management & Configuration
- Web-based GUI or SmartConsole Utility
- Command Line Interface (CLI)
- Telnet
- SNMP v.1
- DHCP client
- Web GUI traffic monitoring (static statistics)
- Trust host: 3
- SYSLOG
- Web-based firmware backup/upload
- Firmware upgrade using SmartConsole Utility
- TFTP remote firmware upgrade
- Reset button

MIB
- RFC 1213 MIB II
- Bridge MIB
- Private MIB

Performance

Performance Enhancement Functions
- Bandwidth control: Threshold of 8K, 16K, 32K, 64K, 128K, 256K, 512K, 1,024K, 2,048K and 4,096K per second
- Broadcast Storm control: Threshold of 8K, 16K, 32K, 64K, 128K, 256K, 512K, 1,024K, 2,048K and 4,096K per second

Switching Capacity
1.6Gbps

Transmission Method
Store-and-forward

MAC Address Table
- 8K entries per device
- Supports 60 static MAC entries

MAC Address Learning
Automatic update

Packet Filtering/Forwarding Rates (half duplex)
Maximum 148,809 pps per port

RAM Buffer
128K per device

Physical & Environmental

AC Input
5V/2A Switching external power adapter

Power Consumption
3.8 watts

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
142 (W) x 115 (D) x 31 (H) mm
Palm size

Emission (EMI)
CE Class B

Safety
LVD