

DES-1228P



KEY FEATURES

- 24 Ports IEEE 802.3af PoE
- 8K MAC Address Table, IGMP Snooping Support
- 802.1D Spanning Tree, Link Aggregation (6 groups / 8 ports)
- 56 802.1Q VLANs, 802.1P QoS (4 Queues)
- 802.1x Port-based Authentication
- Broadcast Storm Control, Static MAC Address
- DHCP Client, Active Circuit Protection
- Network Management (GUI Management, SNMP v1, Port Mirroring (one-to-one & many-to-one), "Smart Console" Management Utility)

Cost-effective solution for the small and medium business

The DES-1228P Web Smart Switch from D-Link is a cost-effective solution for the small and medium business that requires basic management features like VLAN segmentation, QoS prioritization, and secure 802.1x login and authentication, showcased in a low-cost, easy-to-configure, and GUI managed 'smart' business solution. The DES-1228P comes with 24 10/100BASE-TX Fast Ethernet ports, 4 1000Base-T ports and 2 combo ports for flexible copper/fiber Gigabit connections to storage area network devices, servers, or core switching solutions. It supports 24 ports of PoE up to 15.4 watts to power PD devices such as APs, phones, and cameras. The Graphical User Interface allows you to implement Quality of Service (QoS), VLANs and security without having to go through complex command line management usually found in other managed switches.

Features and Benefits:

D-Link Safeguard Engine:

The DES-1228P incorporates advanced mechanisms to detect an attack against the central processing unit of the switch and to take corrective action on the attacking interface. When a Denial of Service (DoS) attack is waged against the DES-1228P, the D-Link Safeguard Engine detects the

threat and prevents overload of the central processor thus insuring network integrity and helping to maintain open network bandwidth channels.

IEEE 802.3af PoE:

The DES-1228P features 24 10/100BASE-TX ports that support IEEE 802.3af PoE protocol. Each of the 24 PoE ports can supply up to 15.4 Watts, a total PoE-budget of 170 Watts, allowing users to attach any IEEE 802.3af compliant device to the DES-1228P without needing additional power. This eliminates the need of having to place networking devices within close proximity of a power outlet and minimizes cable clutter in awkward places such as ceilings or walls. For devices that are not IEEE 802.3af compliant, a PoE adapter, such as D-Link's DWL-P50 can be used to enable the non-compliant device to receive power through the DES-1228P.

Port Trunking:

The DES-1228P supports static port trunking of up to 6 groups of 8 ports per device. Ports can be combined together to create multi-link loadsharing aggregated trunks to a server or a network backbone. To expand the network, you can also make use of link aggregation to eliminate bottlenecks between the cascaded switches.

802.1Q VLANs:

The DES-1228P provides support for 802.1Q VLANs for improved security and bandwidth utilization. VLANs work by segmenting broadcast domains thus reducing network congestion due to constant network broadcasting. In **addition VLANs provide a means of** securing each broadcast domain from all others. This in turn prevents users on one VLAN from gaining access to resources on other network segments. VLANs can be configured to segment departmental resources. For example, VLANs can be implemented on an SMB network to prevent the Marketing department from gaining access to secure resources in the Accounting department.

SNMP Management:

The DES-1228P supports SNMP v1. SNMP is a useful tool in managing and controlling SNMP supported network devices. SNMP enables the DES-1228P to be polled to provide valuable information about the status of the unit and send traps on abnormal events. This sharing of vital management information saves time and money.

802.1p Priority Tagging:

Like 802.1Q VLAN tagging, 802.1p places a tag in a frame to indicate the priority of the frame. A tag will represent a priority of 0-7 and an 802.1Q compliant switch can read this tag and prioritize traffic accordingly. This differs from port based QoS in that in Port-Based QoS all traffic entering a specific port is prioritized the same way with the same value. In 802.1P a port can receive frames with varying priority tags and classify them based on these tags. A VoIP phone that supports 802.1P can assign a priority to its VoIP traffic and when it enters the switch the switch can give it a higher priority so that voice traffic is always clear and jitter-free.

802.1D Spanning Tree:

Spanning Tree provides protection from unintentional cabling loops forming within a network infrastructure. Loops are dangerous in that they create an unending circle where broadcast and multicast traffic propagate across the network in an endless loop. This creates a storm of traffic that overwhelms the network and brings traffic to a crawl. 802.1D Spanning tree detects and breaks these loops ensuring network uptime.

IGMP Snooping:

IGMP Snooping allows for the forwarding of multicast packets such as streaming audio, video, without increasing network broadcast congestion. By snooping IGMP registration information within a frame, a list of workstations who have joined the multicast group is created. This list then allows the switch to intelligently forward packets to only the appropriate member workstations.

802.1x Authentication:

802.1x Authentication provides a secure means to allow users to log onto your network. When used in conjunction with a RADIUS server, 802.1x requires each user workstation attached to the DES-1228P to provide a username and password before gaining access to the local area network.

Operational Simplicity:

The DES-1228P supports a wide array of plug-in-play features:

- 10/100Mbps auto-negotiation
- Universal UTP cable recognition for auto straight-through or crossover cable detection
- Full/Half duplex support
- IEEE standards support

Managing the DES-1228P has never been easier. Using its built in browser-based management interface, configuring the switch takes only minutes. With full color graphic pictures, diagrams and easy to understand navigation menus, configuring the DES-1228P with the features you require is as easy as surfing the net. The DES-1228P supports many of today's most sought after features like 802.1P priority queuing, 802.1Q VLANs, port trunking, 802.1x authentication, port mirroring, SNMP, spanning tree, link aggregation, IGMP Snooping, broadcast storm control, and more.

General

- Forwarding Mode
 - Store and Forward
- Switching Capacity
 - 12.8 Gbps
- MAC Address
 - 8K MAC Address Table
- IGMP snooping
 - 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
 - Power/CPU (per device) Link/Act, 100Mbps Speed (per 10/100/BASE-TX port) Link/Act, 10/100Mbps Speed, 100/1000Mbps Speed (Per 10/100/1000BASE-T port) FX Link, Link/Act, 100/1000Mbps Speed (per SFP slot)

Software

- L2 Features
 - IGMP snooping: supports 64 multicast groups
 - Default flooding for non-joined multicast traffic
 - 802.1D Spanning Tree

- Port trunk (Link Aggregation): up to 6 groups per device, up to 8 ports per group
- LAN
 - 802.1Q VLAN standard (VLAN Tagging)
 - Up to 256 static VLAN groups
- Quality of Service (QoS)
 - 802.1p Priority Queues standard
 - Up to 4 queues per port
 - Supports WRR mode in queue handling
- Security
 - 802.1x port-based access control
 - Broadcast Storm Control: threshold of 8K, 16K, 32K, 64K, 128K, 512K, 1024K, 2048K, 4096K bytes per second
 - D-Link Safeguard Engine to protect CPU from broadcast/multicast/unicast flooding
- Management
 - Web-based GUI or SmartConsole Utility
 - SNMP support
 - DHCP client
 - Trap setting for destination IP, system events, fiber port events, twisted-pair port events
 - Port access control
 - Web-based configuration backup/restoration
 - Web-based firmware backup/ upload
 - Firmware upgrade using SmartConsole Utility
 - Reboot
- MIB
 - RFC 1213 MIB-II
 - D-Link Enterprise Private MIB

Performance

- Switch Capacity
 - 12.8Gbps

- Transmission Method
 - Store-and-forward
- MAC Address Table
 - 8K entries per device
- MAC Address Update
 - Up to 256 static MAC entries
 - Enable/disable auto-learning of MAC addresses
- Packet Filtering/Forwarding Rates (half duplex)
 - Maximum 1,488,095 pps per port
- RAM Buffer
 - 128KBytes per device

Physical & Environmental

- AC Input
 - 100 to 240 VAC 50/60Hz internal universal power supply
- Power Consumption
 - 18.35 watts (max.)
- Heat Dissipation
 - 62.57 BTU/hr
- Operating Temperature
 - 0° - 40° C
- Storage Temperature
 - -10° - 70° C (12 -158 F)
- Storage Humidity
 - 5% to 90% non-condensing
- Dimensions
 - 440 mm x 140 mm x 44mm
 - 19-inch standard rack mounting width, 1U height
- Weight
 - 2.088 kg
- Emission (EMI)
 - FCC Class A
 - CE Class A
 - VCCI Class A
- Safety
 - CUL

Optional SFP Transceiver

- DEM-211 SFP transceiver, 100BASE-FX standard, multimode fiber, 2km max. distance, 3.3V operating voltage
- DEM-210 SFP transceiver, 100BASE-FX standard, singlemode fiber, 15km max. distance, 3.3V operating voltage
- DEM-310GT SFP transceiver, 1000BASE-LX standard, singlemode fiber, 10km max. distance, 3.3V operating voltage
- DEM-311GT SFP transceiver, 1000BASE-SX standard, multimode fiber, 550m max. distance, 3.3V operating voltage
- DEM-312GT2 SFP transceiver, 1000BASE-SX standard, multimode fiber, 2km max. distance, 3.3V operating voltage
- DEM-314GT SFP transceiver, 1000BASE-LX standard, singlemode fiber, 50km max. distance, 3.3V operating voltage



Ordering Information: DES-1228P

24 10/100BASE-TX ports, 2
10/100/1000 BASE-T ports, 2
combo 10/100/1000BASE-T/SFP
ports.

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

©2007 D-Link India Ltd. All rights reserved.

Users' agree to indemnify, defend and hold D-Link harmless from and against all losses, expenses, damages, including reasonable costs and fees, arising out of or relating to any misuse by the Users of the Product or of the information or content provided in this document.