High-Performance Switching:

+ CPU DoS protection
+ 8K MAC address table
+ IGMP Snooping Support
+ 802.1D Spanning Tree
+ Link Aggregation (6 groups / 8 ports)
+ 256 802.1Q VLANs
+ 802.1p QoS (4 Queues)
+ 802.1x Port based Authentication
+ Broadcast Storm Control
+ Static MAC Address
+ DHCP client

Network Management:

+ GUI Management
+ SNMP v1
+ Port Mirroring (one-to-one & many-to-one)
+ "Smart Console" Management Utility

(48) Port 10/100Mbps + (2) Combo GbE + (2) 1000BASE-T Ports

The DES-1252 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-1252 comes with 48 10/100BASE-TX Fast Ethernet ports, 2 combo 1000BASE-T/SFP ports for flexible copper/fiber Gigabit connection and 2 additional 1000Base-T copper interfaces for uplinking to storage area network devices, servers, or core switching solutions. 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.

D-Link Safeguard Engine

The DES-1252 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 attack is waged against the DES-1252, 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.

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.

Port Trunking

The DES-1252 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-1252 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-1252 supports SNMP v1. SNMP is a useful tool in managing and controlling SNMP supported network devices. SNMP enables the DES-1252 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.

D-Link

(48) Port 10/100Mbps + (2) Combo GbE + (2) 1000BASE-T Ports

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-1252 to provide a username and password before gaining access to the local area network.

Operational Simplicity

The DES-1252 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-1252 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-1252 with the features you require is as easy as surfing the net. The DES-1252 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.

Technical Specifications

Product Specifications

Max. Forwarding Rate	10M:14,880 pps / 100M:148,809 pps / 1G:1,488,095 pps
Forwarding Mode	Store and Forward
Switching Capacity	17.6 Gbps
Flash Memory	2MB
MAC Address	8K MAC Address Table
IGMP snooping	Support 64 multicast groups
802.1D Spanning Tree	Support per device STP & BPDU forwarding.
Static Port Trunk	Support max 6 groups per device and 8 ports per group
Flow Control	802.3x supported flow control
Port mirroring	Support one-to-one or many-to-one port mirroring
	Support TX,RX and Both mode
802.1Q VLAN Group	Support 256 static VLAN groups
	Able to configure VID from 1-4094
802.1p support	4 Queues
802.1x Port-based Access Control	Default 802.1x forwarding
Broadcast Storm Control	Allow specifying the per device threshold in terms of 8K - 4096K Bytes per second
Static MAC Address	Support 256 Static MAC entries
D-Link Safeguard Engine	Protect CPU from Broadcast/Multicast/Unicast flooding
Web-based GUI	Compatible with IE, Netscape, Mozilla, Firefox, Opera, Safari browsers
SNMP v1	Configurable Community setting
	Support SNMP Trap
DHCP client	Supports ability to fuction as a DHCP client

BUSINESS

(48) Port 10/100Mbps + (2) Combo GbE + (2) 1000BASE-T Ports

Switch Discovery/Management Utility	Up to 256 agents/switches
Port Setting	Can set Speed, Duplex mode, flow control
Configuration Backup/Restore	Via Web GUI
Firmware Backup/Restore	Via Web GUI
Firmware Upgrade	Via SmartConsole Utility
Reboot	Via Web GUI

Interface Options

RJ-45 (48x 10/100BaseT ports & 2 1000Base-T ports)	IEEE 802.3 compliance
	IEEE 802.3u compliance
	IEEE 802.3x Flow Control support for Full-Duplex mode, Back Pressure when Half-Duplex mode
SFP (2 combo 1000Base-T/SFP ports)	IEEE 802.3ab compliance
	IEEE 802.3z compliance
	IEEE 802.3u compliance
	IEEE 802.3x Flow Control support for Full-Duplex mode, Back Pressure when Half-Duplex mode

Network Management

In & Out of Band	HTTP, SNMP v1, Port Mirroring
Physical & Environment	
AC input	100-240 VAC, 50/60Hz
	Internal universal power supply
Operation Temperature	0° - 40°C (32° - 104° F)
Storage Temperature	10° - 70°C (14° - 158° F)
Humidity	Operation: 10%-90% RH - Storage: 5% ~ 90% RH
Power consumption:	26.2 watts
Heat Dissipation:	86.95 (btu/hr)
Dimension (WxDxH)	19-inch, 1U Rack-mount size
	440mm x 310mm x 44mm (17.3" x 12.2" x 1.73")
Warranty	Limited Lifetime (excluding power supplies and fans)

Emission (EMI) and Safety Certifications

EMI-EMC Compliance	FCC class A, CE Class A,VCCI Class A
Safety Compliance	cUL, UL

Ordering Information

Part Number	Description
DES-1252	Web smart 48 port 10/100Mbps with 2 Combo Gigabit copper/SFP ports, 2 1000BASE-T uplinks
DEM-310GT	1000Base-LX SFP/Mini Gigabit Interface converter (up to 10km)
DEM-311GT	1000Base-SX SFP/Mini Gigabit Interface converter (up to 550m)
DEM-210	100BASE-FX 155 Mbps Single-Mode 15km SFP Transceiver
DEM-211	100BASE-FX 155 Mbps Multi-Mode 2km SFP Transceiver

BUSINESS