Enhanced Security Features

+ Access Security with 802.1X Port-Based Authentication
+ Broadcast Storm Control
+ Safeguard Engine feature guarantees Switch Performance

Static Port Trunking

+ Up to 6 trunk groups for Server Connection/ Switch Cascading, and each trunk supports up to 8 ports

Intutive Centralized Management

+ Manage using SmartConsole or Web-Based GUI
+ Built-in Smart Wizard for initial configuration setting for Web-Based interface.
+ Built-in MIB browser for SNMP Management

Superior VLAN Features

+ 802.1Q: VLAN Tagging for Traffic Segmentation, and 256 VLAN group support
+ Asymmetric VLAN: Supports Asymmetric VLAN for more efficient use of shared resources such as server or gateway devices

Advanced QoS

+ Ensure time-sensitive data gets delivered efficiently, even during bursts of high traffic
+ Supports IEEE 802.1p QoS up to 4 802.1p Priority Queues and DSCP QoS for VoIP application
+ Ensures optimal experience for gamers and other requirements by prioritizing network traffic

Cable Diagnostics Function

With the continuing drive to Home/SMB adaptation, D-Link's Cable Diagnostics function enables users to efficiently detect the cable condition and type of error. Networks operate over CAT 5 RJ-45 cable. However, many older and home networks still use CAT 3/5 RJ-45 cable. The Cable Diagnostics function allows users to determine whether their RJ-45 cables are Gigabit capable or for troubleshooting problems of cables, simply through the web-based interface to check the test results.

+ This function assists users to effectively detect RJ-45 cable condition while migrating from their existing networks to Gigabit-capable ones, minimizing the service calls during the migration.

+ Displays the result of detecting RJ-45 cable with an open circuit (a lack of continuity between the pins at each end of the Ethernet cable or a disconnected cable) or short circuit (two or more conductors short-circuited)

24/48- Port Web Smart Switches

D-Link's next generation Gigabit web smart switch series is available at an affordable price, which is economical for the small and medium business. The smart switches provide user friendly Web-Based management for easy configuration. With three models to choose from DES-1228/1228P/1252, this series provide flexible choices for different network requirements. Typically, fans are a key energy consumer. The DGS-1228 and 1252 comes with an innovative fanless design for a 19" metal case. The three models are housed in a new style rack-mount metal case with easy-to-view front panel diagnostic LEDs, and facilitate advance features that include:
• Two combo 10/100/1000BASE-T SFP connections
• Network security
• Traffic segmentation
• QoS
• Versatile management

Seamless Integration

The Ethernet web smart switches are designed and focused to provide SMB users a complete control over network. With Ethernet and Gigabit copper ports capable of connecting to your existing Cat.5 twisted-pair cable, these switches eliminate the need of a complex reconfiguration process. Each switch provides two combo 10/100/1000BASE-T SFP slots for flexible connection to a backbone or servers. In addition, all ports support auto-negotiation of MDI/MDIX crossover, so do away with cross over cables or uplink ports and bring inexpensive and easy connection to your desktop.

Extensive Layer 2 Features

Implemented as complete L2 feature, these switches include features such as IGMP snooping, port mirroring, Spanning Tree and port trunks. The IEEE 802.3x flow control function allows your servers to directly connect to the switch for fast, reliable data transfer. At 2000Mbps full duplex, the gigabit ports provide high-speed data pipes to your servers with minimum data transfer loss.

QoS, 802.1Q VLAN and Asymmetric VLAN

The switches support 802.1Q VLAN standard tagging by prioritizing traffic to enhance network security and performance. Also support 802.1p priority queues, enabling users to run bandwidth-sensitive applications such as streaming multimedia and VoIP in network. These functions allow switches to work seamlessly with VLAN and 802.1p traffic in network. Asymmetric VLAN is implemented in these switches for a more efficient use of shared resources such as server or gateway devices.

Secure your Network

D-Link's innovative Safeguard Engine function protects the switches against traffic flooding caused by virus attacks. Additional features like MAC address filters screen access to the network. They support 802.1X port-based authentication, allowing network to be configured with external RADIUS servers.

Versatile Management

The new generation of web smart switches provides growing businesses simple and easy management of their network using an intuitive SmartConsole utility or a Web-Based management interface that allows administrators to remotely control their network down to the port level. The SmartConsole easily allows customers to discover multiple D-Link web smart switches with the same L2 network segment connected to user's local PC. With this utility, users do not need to change the IP address of PC and also provides easy initial setting of smart switches. The switches with the same L2 network segment connected to user's local PC are displayed on the screen for instant access. It allows extensive switch configuration setting, and basic configuration of discovered devices such as password change, firmware upgrade.

Before entering the Web GUI main page, D-Link provides a built-in Smart Wizard for the initial configuration setup. Users can pre-configure basic functionality such as password change, system information and SNMP settings. In addition, users can also use the built-in MIB browser to poll the switches for information about their status and send traps of abnormal events. MIB support allows users to integrate the switches with third-party devices for management in an SNMP environment.

24/48- Port Web Smart Switches

Technical Specifications

General

Port Standards & Functions	+ 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	+ DES-1228: 24 10/100BASE-Tx ports, 2 combo 10/100/1000BASE-T/SFP + DES-1228P: 24 802.3af PoE 10/100BASE-Tx ports, 2 combo 10/100/1000BASE-T/SFP + DES-1252: 48 10/100BASE-Tx ports, 2 combo 10/100/1000BASE-T/SFP * Use of the SFP will disable their corresponding 10/100/1000BASE-T connections

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

Software

L2 Features	+ IGMP snooping v1/2: supports 64 multicast groups + 802.1D Spanning Tree + Static Port trunk (Link Aggregation): up to 6 groups per device, up to 8 ports per group + Power Saving
VLAN	+ 802.1Q VLAN standard (VLAN Tagging) + Up to 256 static VLAN groups + Management VLAN + Asymmetric VLAN
QoS (Quality of Service)	+ 802.1p Priority Queues standard + Up to 4 queues per port + DSCP-based QoS + Supports WRR or Strict mode in queue handling
Security	+ 802.1X port-based access control + Broadcast Storm Control: threshold of 8K, 16K, 32K, 64K, 128K, 256k, 512K, 1024K, 2048K, 4096K bytes per second + D-Link Safeguard Engine to protect CPU from broadcast / multicast / unicast flooding + Trusted Host + Cable Diagnostics function

24/48- Port Web Smart Switches

Management	+ Web-based GUI + SNMP v1 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 + System Reboot using Web-based interface + SmartConsole Utility
MIB	+ RFC 1213 MIB-II + D-Link Enterprise Private MIB

Performance

Switch Capacity	+ DES-1228: 12.8Gbps + DES-1228P: 12.8Gbps + DES-1252: 17.6Gbps
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
Maximum 64 bytes packet forwarding rate	+ DES-1228: 9.52 Mpps + DES-1228P: 9.52 Mpps + DES-1252: 13.1 Mpps
RAM Buffer	+ DES-1228: 128KB per device + DES-1228P: 128KB per device + DES-1252: 128KB per device

Physical & Environmental

AC Input	100 to 240 VAC 50/60Hz internal universal power supply
Power Consumption	+ DES-1228: 18.35W + DES-1228P: 222W + DES-1252: 26.2W
Supported PoE Power Per Port	+ DES-1228P: 15.4W
Total Supported PoE Power Per Device	+ DES-1228P: 170W
Fan Quantity	+ DES-1228: 0 + DES-1228P: 4 + DES-1252: 0
Heat Dissipation	+ DES-1228: 62.75 BTU/hr + DES-1228P: 757.51 BTU/hr + DES-1252: 86.95 BTU/hr
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

24/48- Port Web Smart Switches

Dimensions	+ DES-1228: 440 mm x 140 mm x 44mm + DES-1228P: 440 mm x 209 mm x 44mm + DES-1252: 441 mm x 310 mm x 44 mm + 19-inch standard rack mounting width, 1U height
Weight	+ DES-1228: 2.08 kg + DES-1228P: 3.20 kg + DES-1252: 3.72 kg
Emission (EMI)	+ FCC Class A + CE Class A + VCCI Class A + C-Tick
MTBF	+ DES-1228: 326,647hrs + DES-1228P: 149,676hrs + DES-1252: 298,917hrs
Safety	cUL