

24/48-Port Ethernet Switch

Web Smart Switch

- 4 Gigabit Uplinks & Combo 1000BASE-T/SFP Support
- Versatile Management Through "SmartConsole" or Web-Based GUI
- VLAN Traffic Segmentation & Priority Queue QoS
- Network Access Security
- Built-in MIB for SNMP Management
- 802.3af Power Over Ethernet Option for Special Installation Sites *

FEATURES

- **Choices of 24 and 48 10/100BASE-TX Ethernet Ports**
- **Per-Port 802.3af Power Over Ethernet ***
- **2 10/100/1000T Gigabit Ports**
- **2 Combo 10/100/1000T/SFP Gigabit Ports**
- **Up to 6 Port Trunks for Server Connection/Switch Cascading**
- **802.1Q VLAN Tagging for Traffic Segmentation**
- **802.1p Priority Queues for QoS**
- **Access Security With 802.1x Port-Based Authentication**
- **Broadcast Storm Control for Bandwidth Management**
- **Safeguard Engine Feature for Guaranteed Switch Performance**
- **Versatile Management Through SmartConsole or Web-Based GUI**
- **SNMP Management Support**
- **19-Inch Standard Rack-Mount Size**

* For switch model DES-1228P only

Smart[™]

D-Link's next generation Web Smart Ethernet switch series blends plug-and-play simplicity with exceptional value and reliability for small and medium-sized business (SMB) networking. Each switch is housed in a new style rack-mount metal case with easy-to-view front-panel diagnostic LEDs, and provides advance features including 4 Gigabit uplinks, combo 1000BASE-T/SFP, network security, traffic segmentation, QoS and versatile management.

Choices of 24 and 48 ports. Two port densities are available for selection: 24 Ethernet ports and 48 Ethernet ports. Supporting auto-detection of MDI/MDIX, these switches bring inexpensive and easy Ethernet connection to the desktops. Each switch provides 4 Gigabit uplinks connection to a Gigabit backbone or servers.

Power Over Ethernet Option. Switch model DES-1228P provides built-in 802.3af Power over Ethernet for network sites needing to run power over the network cables. Each the 24 10/100BASE-TX Ethernet ports of this switch provides up to 15.4 watts power for connected wireless access points, IP phones and other PoE-supported devices, allowing them to be deployed at difficult places such as on high walls and ceilings, where AC power outlets are not readily available.

Extensive Layer 2 Features. Implemented as complete L2 devices, these switches include functions such as IGMP snooping, port mirroring, Spanning Tree, port trunks and 802.3x Flow Control to enhance performance and network resiliency.

Traffic Segmentation and QoS. The switches support 802.1Q VLAN Tagging for traffic segmentation by groups to enhance network security and performance. They also support 802.1p Priority Queues, enabling users to run bandwidth-sensitive applications such as streaming multimedia and VoIP on the network. These functions allow the switches to work seamlessly with managed VLAN and 802.1p traffic on the network.

Network Security. The switches provide MAC address filters screen access to the network. They support 802.1x port-based authentication, allowing the network to be configured with external RADIUS servers. Additional features like D-Link Safeguard Engine protect the switches against traffic flooding caused by virus/worm outbreaks.

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.



Technical Specifications

DES-1228

DES-1228P

DES-1252



Interface	10/100BASE-TX Ports	24	24 (With Per Port 802.3af PoE)	48
	10/100/1000BASE-T Ports	2	2	2
	Auto-Negotiation of Network Speed	✓	✓	✓
	Auto-MDI/MDIX	✓	✓	✓
	802.3x Flow Control	✓	✓	✓
	Combo 10/100/1000BASE-T/SFP	2	2	2
Performance	Switch Fabric	12.8Gbps	12.8Gbps	17.6Gbps
	Packet Forwarding Rate	9.52Mpps	9.52Mpps	13.1Mpps
	Packet Buffer	128KB	128KB	128KB
	MAC Address Table	8K Entries	8K Entries	8K Entries
Power	Supplied PoE Power Per Port	-	15.4 Watts	-
	Total Supplied PoE Power Per Device	-	170 Watts	-
	Power Supply	100 to 120VAC, 200 to 240VAC, 50/60Hz, Internal Power Supply		
	Power Consumption (Max.)	18.35 Watts	222 Watts	26.2 Watts
Physical & Environmental	BTU/Hr.	62.75	757.51	86.95
	Ventilation	Fanless	4 40 x 40mm DC Fans	Fanless
	Dimensions	440 x 140 x 44 mm (17.32 x 5.51 x 1.73 inches)	440 x 209 x 44 mm (17.32 x 8.23 x 1.73 inches)	440 x 310 x 44 mm (17.32 x 12.20 x 1.73 inches)
	Size	19-Inch Rack-Mount Width, 1U Height		
	Weight	2.08 kg (4.58 lbs)	3.20 kg (7.05 lbs)	3.72 kg (8.20 lbs)
	Operating Temperature	0°C to 40°C (32°F to 104°F)		
	Storage Temperature	-10°C to 70°C (14°F to 158°F)		
	Operating Humidity	10% to 90% RH		
	Storage Humidity	5% to 90% RH		
	EMI	FCC Class A, CE, VCCI, C-Tick		
Safety	cUL			



Software Functions

General

L2 Features

- IGMP snooping: supports 64 multicast group
- 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
- Port mirroring

VLAN

- 802.1Q VLAN standard (VLAN Tagging)
- Up to 256 static VLAN groups

QoS (Quality of Service)

- 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

Optional SFP Transceivers

DEM-211	SFP transceiver, 100BASE-FX standard, multi-mode fiber, max. 2 km distance, 3.3V operating voltage	DEM-312GT2	SFP transceiver, 1000BASE-SX standard, multi-mode fiber, max. 2 km distance, 3.3V operating voltage
DEM-210	SFP transceiver, 100BASE-FX standard, single-mode fiber, max. 15 km distance, 3.3V operating voltage	DEM-314GT	SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. 50 km distance, 3.3V operating voltage
DEM-310GT	SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. 10 km distance, 3.3V operating voltage	DEM-315GT	SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. max. 80 km distance, 3.3V operating voltage
DEM-311GT	SFP transceiver, 1000BASE-SX standard, multi-mode fiber, max. 550 m distance, 3.3V operating voltage	DEM-330T	WDM SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. 10 km distance, 3.3V operating voltage, 1550 nm Tx wavelength, 1310 nm Rx wavelength
		DEM-330R	WDM SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. 10 km distance, 3.3V operating voltage, 1310 nm Tx wavelength, 1550 nm Rx wavelength
		DEM-331T	WDM SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. 40 km distance, 3.3V operating voltage, 1550 nm Tx wavelength, 1310 nm Rx wavelength
		DEM-331R	WDM SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. 40 km distance, 3.3V operating voltage, 1310 nm Tx wavelength, 1550 nm Rx wavelength

D-Link Worldwide Offices

U.S.A.	TEL: 1-800-326-1688	FAX: 1-866-743-4905	Luxemburg	TEL: 32-(0)2-517-7111	FAX: 32-(0)2-517-6500
Canada	TEL: 1-905-8295033	FAX: 1-905-8295223	Poland	TEL: 48-(0)-22-583-92-75	FAX: 48-(0)-22-583-92-76
Europe (U. K.)	TEL: 44-20-8955-9000	FAX: 44-20-8955-9001	Hungary	TEL: 36-(0)-1-461-30-00	FAX: 36-(0)-1-461-30-09
Germany	TEL: 49-6196-77990	FAX: 49-6196-7799300	Singapore	TEL: 65-6774-6233	FAX: 65-6774-6322
France	TEL: 33-1-30238688	FAX: 33-1-30238689	Australia	TEL: 61-2-8899-1800	FAX: 61-2-8899-1868
Netherlands	TEL: 31-10-282-1445	FAX: 31-10-282-1331	India	TEL: 91-022-26526696	FAX: 91-022-26528914
Belgium	TEL: 32(0)2-517-7111	FAX: 32(0)2-517-6500	Middle East (Dubai)	TEL: 971-4-3916480	FAX: 971-4-3908881
Italy	TEL: 39-02-2900-0676	FAX: 39-02-2900-1723	Turkey	TEL: 90-312-473-40-55	FAX: 90-312-473-40-58
Sweden	TEL: 46-(0)8564-61900	FAX: 46-(0)8564-61901	Egypt	TEL: 202-291-9035	FAX: 202-291-9051
Denmark	TEL: 45-43-969040	FAX: 45-43-424347	Israel	TEL: 972-9-9715700	FAX: 972-9-9715601
Norway	TEL: 47-99-300-100	FAX: 47-22-309580	LatinAmerica	TEL: 56-2-232-3185	FAX: 56-2-232-0923
Finland	TEL: 358-9-2707 5080	FAX: 358-9-2707-5081	Brazil	TEL: 55-11-218-59300	FAX: 55-11-218-59322
Spain	TEL: 34-93-4090770	FAX: 34-93-4910795	South Africa	TEL: 27-12-665-2165	FAX: 27-12-665-2186
Portugal	TEL: 351-21-8688493		Russia	TEL: 7-495-744-0099	FAX: 7-495-744-0099 #350
Czech Republic	TEL: 420-(603)-276-589		Japan	TEL: 81-3-5781-0963	FAX: 81-3-5781-0965
Switzerland	TEL: 41-(0)-1-832-11-00	FAX: 41(0)-1-832-11-01	China	TEL: 86-10-58635800	FAX: 86-10-58635799
Greece	TEL: 30-210-9914 512	FAX: 30-210-9916902	Taiwan	TEL: 886-2-6600-0123	FAX: 886-2-6600-8168
			Headquarters	TEL: 886-2-6600-0123	FAX: 886-2-6600-9898