

Flexible Hardware Design

- Selectable 8, 16, 24, or 48 10/100BASE-TX or 24 100BASE-FX ports
- 2 or 4 Combo 1000BASE-T/SFP ports
- 9" or 19" Rack-mount
- Support 802.3at (PoE+) and 802.3af (PoE) for PoE models
- Carrier Ethernet-friendly design for DES-3200-28/ME
 - All interfaces in the front panel
 - External alarm for event detection and alarm actions

Surge Protection

- All Ethernet ports have 6 KV surge protection¹

L2 Features

- 802.1D STP, 802.1w RSTP, and 802.1s MSTP
- Loopback Detection
- 802.1AX and 802.3ad Link Aggregation
- Voice VLAN⁴

Security

- Port Security
- SSH/SSL
- Access Control List (ACL)
- 802.1X / Web-Based(WAC)/MAC-Based (MAC) Access Control
- 802.1X Guest VLAN
- IP-MAC-Port Binding

Traffic Monitoring & Bandwidth Control

- Port Mirroring/Bandwidth Control
- Broadcast/Multicast/Unicast Storm Control
- srTCM, trTCM, & policing²

¹Available on DES-3200-10/18/26/28 B1, DES-3200-26/28/28P/52/52P C1

²Available on DES-3200-26/28/28P/52/52P C1

³Available on DES-3200-10/18/26/28 B1

⁴Available on DES-3200-26/28/28P/52/52P C1 (Future firmware release)



Layer 2 Management Switches

The DES-3200 series is a member of D-Link's Layer 2 managed switch family designed for the ETTX, FTTX, and enterprise markets. The DES-3200 series provides 8/16/24/48 10/100 Mbps Fast Ethernet connections and 2/4 combo Gigabit/SFP ports. The DES-3200-10/18 comes in a 9-inch compact size and incorporates a fanless design suitable for deployment on desktops, telecom cabinets, or distribution boxes. For DES-3200-26/28/28F/52 models, all of them are 1U 19" rack mount size and provide 24/48 copper or fiber connections on Fast Ethernet with the beneficial design of 2/4 Gigabit/SFP Combo ports which provide up to 4 Gbps uplink bandwidth or dual Ethernet ring topology support. The DES-3200-28/ME is a purpose-made device for telecom cabinets where devices have only one manageable side and operators or engineers have to do troubleshooting very quickly. The DES-3200-28/ME has all of its interfaces in the front including the power supply to meet specific metropolitan market requirements. Also, it can support an alarm interface for event detection and alarm actions. The DES-3200-28F is the ideal solution for FTTX deployments. It provides direct Ethernet Fiber connectivity to the home CPEs. Without the crosstalk problem of traditional copper cables, the DES-3200-28F extends the coverage of ETTX up to 20 kilometers. The DES-3200-28P/52P are IEEE 802.3af and IEEE 802.3at Power over Ethernet (PoE)-compliant switches and provide 15.4 W per port and up to 30 W in the first four/eight ports. PoE/PoE+ powers devices such as video IP phones, wireless access points, and IP cameras directly through Ethernet cables which makes the deployment of the network much easier. All switches in the DES-3200 series have embedded 2 or 4 Gigabit SFP uplinks, which allow for flexible network topology choices such as ring, tree, or mixed.

Security & Availability

The DES-3200 series supports 802.1X port-based/host-based access control, Guest VLAN, and RADIUS/TACACS/XTACACS/TACACS+ Authentication for strict access control over the network. The IP-MAC-Port Binding feature allows administrators to bind a source IP address with an associated MAC for a defined port number to enhance user access control. Furthermore, with the DHCP snooping feature, the switch automatically pairs the IP/MAC by snooping DHCP packets and saving them to the IMPB white list. These features play a significant role in keeping the network secure and auditable. The built-in D-Link Safeguard Engine identifies and prioritizes "CPU interested" packets to prevent malicious traffic from interrupting normal network flows and protects switch operation. In addition, the DES-3200 series provides multi-layer Access Control List (ACL). Administrators are able to limit the network services or access without impacting the switch performance.

Resilience/Performance Enhancement

For mission critical environments, the DES-3200 series supports 802.1D-2004 edition, 802.1w and 802.1s Multiple Spanning Tree (MSTP). STP allows you to configure the switch with a redundant backup bridge path, so transmission and reception of packets can be guaranteed in the event of a failed switch on the network. The switches also support 802.1AX and 802.3ad Link Aggregation, enabling you to group multiple ports in parallel to form a single port, increasing bandwidth and redundancy for higher availability. For Quality of Service (QoS), the switches support 802.1p. Advanced Packet classification is based on TOS, DSCP, MAC address, IP addresses, VLAN ID, TCP/UDP port number, protocol type, and user-defined packet content. This enables flexible configuration for specific multi-media applications such as IP or IPTV. Furthermore, the DES-3200 series supports automatic, effective QoS functions for voice traffic. The Voice VLAN features a dedicated VLAN with higher priority to guarantee the quality and security of the voice traffic.

Traffic & Bandwidth Control

The bandwidth control feature allows network administrators to define the ingress/egress throughput levels for each port with granularity down to 8²/64 kpbs. The switch also supports the storm control feature which minimizes problems from excessive traffic within the network. Port mirroring helps administrators facilitate traffic diagnostics or track switch performance and make changes if necessary. The DES-3200 series supports a two-rate and single-rate Three Color Marker (trTCM/srTCM) to classify traffic streams into conforming and nonconforming groups to guarantee the minimum bandwidth for important traffic.



Management

- SNMP v1, v2c, v3 & RMON v1, v2
- D-Link Single IP Management (SIM)
- Network Load Balancing (NLB)
- RADIUS/TACACS/TACACS+/XTACACS
- Link Layer Discovery Protocol (LLDP)
- LLDP-MED⁴

Operations Administration Maintenance (OAM)

- 802.3ah Ethernet Link OAM
- 802.3ah D-Link Extension: D-Link Unidirectional Link Detection (DULD)²
- 802.1ag Connectivity Fault Management (CFM)

Green

- Time-based PoE for PoE models
- D-Link Green 3.0: Power saving function
 - LED Shut-Off⁴
 - Port Shut-Off⁴
 - System Hibernation⁴

Comprehensive IPv6 Features

- IPv6 Neighbor Discovery (ND)
- ICMP v6
- IPv6 default route
- IPv6 ping and traceroute v6
- Limit IP multicast²
- IPv6 ACL
- IMPB v6⁴
- SNMP v6⁴
- DHCP v6⁴
- Telnet v6⁴

¹Available on DES-3200-10/18/26/28 B1, DES-3200-26/28/28P/52/52P C1

²Available on DES-3200-26/28/28P/52/52P C1

³Available on DES-3200-10/18/26/28 B1

⁴Available on DES-3200-26/28/28P/52/52P C1 (Future firmware release)

Layer 2 Management Switches

Multicast Applications

The DES-3200 series provides full L2 Multicast functions, including IGMP snooping, IGMP filtering, fast leave, and multicast traffic configuration for specific ports. With L2 Multicast support, the DES-3200 series can handle growing IPTV application. The Host-based IGMP/MLD Snooping allows multiple multicast subscribers per physical interface and ISM VLAN sends multicast streams in a multicast VLAN to save bandwidth in the backbone network. The ISM VLAN profiles allow users to bind/replace the pre-defined multicast registration information to subscription ports quickly and easily.

OAM

The DES-3200 series provides cable diagnostics to check the status of network cables and pinpoint the cause of any network cable malfunction without requiring on-site operator support. The 802.1ag Connectivity Fault Management (CFM) feature provides tools to monitor and troubleshoot end-to-end Ethernet networks, allowing service providers to check connectivity, isolate network issues, and identify customers affected by network issues. The 802.3ah Ethernet OAM, Dying Gasp, and D-Link Unidirectional Link Detection can improve network management and help maintain a stable network connection and support fault locating.

Management Capability

The DES-3200 series supports standard management protocols such as SNMP, RMON, Telnet, SSH/SSL security authentication, and DHCP relay option 82. The switch series also features a web-based GUI that provides a user-friendly interface and easy management. DHCP auto-configuration is an enhanced management feature that allows administrators to preset a configuration on a TFTP server and apply to switches automatically when the switch is trying to obtain IP addresses from DHCP. It makes the switch deployment easier and quicker especially in a large-scale network. LLDP and LLDP-MED provide quick discovery of Ethernet equipment especially for endpoint devices. According to the discovery result, administrators can easily push the configurations to corresponding devices and build up a topology drawing through the network management system (NMS) quickly. D-Link Single IP management (SIM) simplifies and speeds up management

tasks, allowing multiple switches to be configured, monitored, and maintained from any workstation running a web browser through one unique IP address. The DES-3200 Series also works with D-Link's D-View 6.0 software. D-View 6.0 is a Network Management System that allows for the central management of critical network characteristics such as availability, reliability, resilience, and security. D-View 6.0 provides a useful set of tools for network administrators who want to effectively manage device configurations, fault tolerance, performance, and security.

IPv6 Ready

The DES-3200 series has been certified with IPv6 Ready Phase 2 Logo which guarantees connectivity and manageability in an IPv6 network. Furthermore, it supports IPv4/v6 dual stack function that allows the switch to act as a bridge between IPv4 and IPv6 networks. As networks continue to expand and the need for addresses and higher security becomes critical, the DES-3200 series supports various IPv6 ACL, IMPBv6⁴, and L3 Control Packet Filtering⁴ functions to protect the network against attacks and meet the requirements for the design of the IPv6 architecture.



Technical Specifications

DES-3200-10

DES-3200-18



Hardware Version		A1	B1	A1	B1
Interface	Size	9-inch Standard Rack-mount Width, 1U Height	9-inch Standard Rack-mount Width, 1U Height	9-inch Standard Rack-mount Width, 1U Height	9-inch Standard Rack-mount Width, 1U Height
	Interface	8 10/100BASE-TX 2 Combo 10/100/1000BASE-T/ 100/1000 SFP	8 10/100BASE-TX 100/1000 SFP Combo 10/100/1000BASE-T/ 100/1000 SFP	16 10/100BASE-TX 2 Combo 10/100/1000 BASE-T/ 100/1000 SFP	16 10/100BASE-TX 100/1000 SFP Combo 10/100/1000 BASE-T/ 100/1000 SFP
	Console Port	RS-232	RJ-45	RS-232	RJ-45
Performance	Switching Capacity	5.6 Gbps	5.6 Gbps	7.2 Gbps	7.2 Gbps
	64-Byte Packet Forwarding Rate	4.2 Mpps	4.2 Mpps	5.4 Mpps	5.4 Mpps
	MAC Address Table Size	8K Entries	8K Entries	8K Entries	8K Entries
	SDRAM for CPU	128 MB	128 MB	128 MB	128 MB
	Packet Buffer	384 KB	384 KB	384 KB	384 KB
	Flash Memory	16 MB	16 MB	16 MB	16 MB
	Jumbo Frame (2048 Bytes Tagged, 2044 Bytes Un-Tagged)	✓	✓	✓	✓
LEDs	Power (Per Device)	✓	✓	✓	✓
	Console (Per Device)	✓	✓	✓	✓
	Link/Activity/Speed (Per Port)	✓	✓	✓	✓
Physical and Environmental	MTBF (Hours)	873,750 hours	804,462 hours	743,115 hours	764,596 hours
	Acoustic	0 dB	0 dB	0 dB	0 dB
	Heat Dissipation	43.3 BTU per hour	31.3 BTU per hour	45.0 BTU per hour	36.4 BTU per hour
	Power Input	AC Input 100 to 240 V AC, 50 to 60 Hz Internal Universal Power Supply			
	Max Power Consumption	12.7 watts	9.2 watts	13.2 watts	10.7 watts
	Dimensions (W x D x H)	228.5 x 180 x 44 mm (9.00 x 7.09 x 1.73 inches)	228.5 x 195 x 44 mm (9.00 x 7.68 x 1.73 inches)	228.5 x 180 x 44 mm (9.00 x 7.68 x 1.73 inches)	228.5 x 195 x 44 mm (9.00 x 7.68 x 1.73 inches)
	Ventilation	Fanless	Fanless	Fanless	Fanless
	Power Surge Protection	-	All Ethernet ports support IEC61000-4-5 10/700us 6 KV surge protection	-	All Ethernet ports support IEC61000-4-5 10/700us 6 KV surge protection
	Operating Temperature	0 to 40 °C (32 to 104 °F)	0 to 50 °C (32 to 122 °F)	0 to 40 °C (32 to 104 °F)	0 to 50 °C (32 to 122 °F)
	Storage Temperature	-40 to 70 °C (-40 to 158 °F)			
	Operating Humidity	5% to 95% non-condensing			
	EMI	FCC Class A, CE Class A, VCCI Class A, IC, C-Tick, BSMI			
	Safety	CE, LVD, UL/cUL, CB, BSMI			
3rd Party Certifications	MEF 21, IPv6 Ready Phase 2 Logo				

Technical Specifications

DES-3200-26

DES-3200-28/ME



Hardware Version		A1	B1	C1	A1
Interface	Size	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height
	Interface	24 10/100BASE-TX 2 Combo 10/100/1000BASE-T/ 100/1000 SFP	24 10/100BASE-TX 2 Combo 10/100/1000BASE-T/ 100/1000 SFP	24 10/100BASE-TX 2 Combo 10/100/1000BASE-T/ 100/1000 SFP	24 10/100BASE-TX 2 100/1000 SFP 2 Combo 10/100/1000BASE-T / 100/1000 SFP
	Console Port	RS-232	RJ-45	RJ-45	RJ-232
Performance	Switching Capacity	8.8 Gbps	8.8 Gbps	8.8 Gbps	12.8 Gbps
	64-Byte Packet Forwarding Rate	6.6 Mpps	6.6 Mpps	6.6 Mpps	9.5 Mpps
	MAC Address Table Size	8K Entries	8K Entries	16K Entries	8K Entries
	SDRAM for CPU	128 MB	128 MB	128 MB DDR2	128 MB
	Packet Buffer	384 KB	384 KB	1.5 MB	384 KB
	Flash Memory	16 MB	16 MB	32 MB	16 MB
	Jumbo Frame	2048 bytes	2048 bytes	12 KB	2048 bytes
LEDs	Power (Per Device)	✓	✓	✓	✓
	Console (Per Device)	✓	✓	✓	✓
	Link/Activity/Speed (Per Port)	✓	✓	✓	✓
Physical and Environmental	MTBF (Hours)	566,381 hours	697,861 hours	601,273.9 hours	550,994 hours
	Acoustic	0 dB	0 dB	0 dB	0 dB
	Heat Dissipation	47.0 BTU per hour	46.3 BTU per hour	61.039 BTU per hour	47.0 BTU per hours
	Power Input	AC Input: 100 to 240 V AC, 50 to 60 Hz			
	Max Power Consumption	13.8 watts	13.6 watts	20.83 watts	17.8 Watts
	Dimensions (W x D x H)	441 x 207 x 44 mm (17.36 x 8.15 x 1.73 inches)		441 x 209.9 x 44 mm (17.36 x 8.26 x 1.73 inches)	441 x 207 x 44 mm (17.36 x 8.15 x 1.73 inches)
	Ventilation	Fanless	Fanless	Fanless	Fanless
	Power Surge Protection	-	All Ethernet ports support IEC61000-4-5 10/700us 6 KV surge protection		-
	Operating Temperature	0 to 40 °C (32 to 104 °F)	0 to 50 °C (32 to 122 °F)	-5 to 50 °C (23 to 122 °F)	0 to 40 °C (32 to 104 °F)
	Storage Temperature	-40 to 70 °C (-40 to 158 °F)			
	Operating Humidity	5% to 95% Non-Condensing		10% to 90% Non-Condensing	5% to 95% non-condensing
	EMI	FCC Class A, CE Class A, VCCI Class A, IC, C-Tick, BSMI			
	Safety	CE, LVD, UL/cUL, CB, BSMI			
3rd Party Certifications	MEF 21, IPv6 Ready Phase 2 Logo				

Technical Specifications

DES-3200-28

DES-3200-28F



Hardware Version		A1	B1	C1	A1
Interface	Size	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height
	Interface	24 10/100BASE-TX 4 Combo 10/100/1000BASE-T / 100/1000 SFP	24 10/100BASE-TX 2 100/1000 SFP 2 Combo 10/100/1000BASE-T / 100/1000 SFP	24 10/100BASE-TX 2 100/1000 SFP 2 Combo 10/100/1000BASE-T / 100/1000 SFP	24 10/100BASE-TX 4 Combo 10/100/1000 BASE-T / 100/1000 SFP
	Console Port	RS-232	RJ-45	RS-45	RS-232
Performance	Switching Capacity	12.8 Gbps	12.8 Gbps	12.8 Gbps	12.8 Gbps
	64-Byte Packet Forwarding Rate	9.5 Mpps	9.5 Mpps	9.5 Mpps	9.5 Mpps
	MAC Address Table Size	8K Entries	8K Entries	16K Entries	8K Entries
	SDRAM for CPU	128 MB	128 MB DDR 1	128 MB DDR 2	128 MB
	Packet Buffer	384 KB	384 KB	1.5 MB	384 KB
	Flash Memory	16 MB	16 MB	32 MB	16 MB
	Jumbo Frame	2048 bytes	2048 bytes	12 KB	2048 bytes
LEDs	Power (Per Device)	✓	✓	✓	✓
	Console (Per Device)	✓	✓	✓	✓
	Link/Activity/Speed (Per Port)	✓	✓	✓	✓
Physical and Environmental	MTBF (Hours)	668,867 hours	668,867 hours	590,423.5 hours	450,923 Hours
	Acoustic	0 dB	0 dB	0 dB	40.2 dB
	Heat Dissipation	48.4 BTU per hours	48.4 BTU per hours	61.039 BTU per hours	159.3 BTU per hours
	Power Input	AC Input: 100 – 240 V AC, 50-60 Hz			
	Max Power Consumption	18.4 Watts	13.6 Watts	20.83 Watts	46.7 Watts
	Dimensions (W x D x H)	441 x 207 x 44 mm (17.36 x 8.15 x 1.73 inches)		441 x 209.9 x 44 mm (17.36 x 8.26 x 1.73 inches)	441 x 207 x 44 mm (17.36 x 8.15 x 1.73 inches)
	Ventilation	Fanless	Fanless	Fanless	Fan
	Power Surge Protection	-	All Ethernet ports support IEC61000-4-5 10/700 us 6 KV surge protection	All Ethernet ports support IEC61000-4-5 10/700 us 6 KV surge protection	-
	Operating Temperature	0 to 40 °C (32 to 104 °F)	0 to 50 °C (32 to 122 °F)	-5 to 50 °C (22 to 122 °F)	0 to 40 °C (32 to 104 °F)
	Storage Temperature	-40 to 70 °C (-40 to 158 °F)			
	Operating Humidity	5% to 95% non-condensing		10% to 90% non-condensing	5% to 95% non-condensing
	EMI	FCC Class A, CE Class A, VCCI Class A, IC, C-Tick, BSMI			
	Safety	CE, LVD, UL/cUL, CB, BSMI			
3rd Party Certifications	MEF 21, IPv6 Ready Phase 2 Logo				

Technical Specifications

DES-3200-28P

DES-3200-52

DES-3200-52P



Hardware Version		C1	C1	C1
Interface	Size	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height	19-inch Standard Rack-Mount Width, 1U Height
	Interface	24 10/100BASE-TX PoE 2 10/100/1000 BASE-T 2 Combo 10/100/1000 BASE-T / 100/1000 SFP	48 10/100BASE-TX 2 100/1000 SFP 2 Combo 10/100/1000 BASE-T / 100/1000 SFP	48 10/100BASE-TX PoE 2 10/100/1000 Base T 2 Combo 10/100/1000BASE-T / 100/1000 SFP
	Console Port	RJ-45	RS-45	RJ-45
Performance	Switching Capacity	12.8 Gbps	17.6 Gbps	17.6 Gbps
	64-Byte Packet Forwarding Rate	9.5 Mpps	13.1 Mpps	13.1 Mpps
	MAC Address Table Size	16K Entries	16K Entries	8K Entries
	SDRAM for CPU	128 MB DDR 2	128 MB DDR 2	128 MB DDR 2
	Packet Buffer	1.5 MB	1.5 MB	1.5 MB
	Flash Memory	32 MB	32 MB	32 MB
	Jumbo Frame	12 KB	12 KB	12 KB
LEDs	Power (Per Device)	✓	✓	✓
	Console (Per Device)	✓	✓	✓
	Link/Activity/Speed (Per Port)	✓	✓	✓
Physical and Environmental	MTBF (Hours)	216,780 Hours	440,704 Hours	189,396 Hours
	Acoustic	37 dB at low speed, 49.5 dB at high speed	0 dB at fan off, 32.8 dB at fan on	39.2 dB at low speed, 51.2 dB at high speed
	Heat Dissipation	855.696 BTU per hours	113.90 BTU per hours	1608.156 BTU per hours
	Power Input	AC Input: 100 – 240 V AC, 50-60 Hz		
	Max Power Consumption	250.78 Watts	30.09 Watts	471.6 Watts
	Max. PoE Power Budget	188 Watts	-	370 Watts
	Dimensions (W x D x H)	441 x 308 x 44 mm (17.36 x 12.13 x 1.73 inches)		
	Ventilation	Smart Fan	Smart Fan	Smart Fan
	Power Surge Protection	All Ethernet ports support IEC61000-4-5 10/700 us 6 KV surge protection		
	Operating Temperature	-5 to 50 °C (22 to 122 °F)		
	Storage Temperature	-40 to 70 °C (-40 to 158 °F)		
	Operating Humidity	10% to 90% Non-Condensing		
	EMI	FCC Class A, CE Class A, VCCI Class A, IC, C-Tick, BSMI		
	Safety	CE, LVD, UL/cUL, CB, BSMI		
3rd Party Certifications	MEF 21, IPv6 Ready Phase 2 Logo			



Layer 2 Management Switches

Software Features

- Stackability**
 - Virtual Stacking:
 - D-Link Single IP Management
 - Up to 32 units per Virtual Stack
- L2 Features**
 - 16K MAC Address Table²
 - Flow Control:
 - 802.3x Flow Control
 - HOL Blocking Prevention
 - Jumbo Frames up to 12K bytes²
 - Spanning Tree Protocols:
 - 802.1D STP
 - 802.1w RSTP
 - 802.1s MSTP
 - BPDU Filtering
 - Root Restriction
 - Loopback Detection
 - Link Aggregation:
 - Compliant with 802.1AX and 802.3ad
 - DES-3200-10: Max. 5 groups, 8 ports per group
 - DES-3200-18: Max. 9 groups, 8 ports per group
 - DES-3200-26: Max. 13 groups, 8 ports per group
 - DES-3200-28/28F/28/ME/28P: Max. 14 groups, 8 ports per group
 - DES-3200-52/52P: Max. 26 groups, 8 ports per group
 - Port Mirroring:
 - Supports 1 Mirroring group
 - Supports One-to-One, Many-to-One, Flow-based (ACL) Mirroring
 - Ethernet Ring Protection Switching (ERPS)
 - L2 Protocol Tunneling (L2PT)
- L2 Multicasting**
 - IGMP Snooping:
 - IGMP v1/v2 Snooping, v3 awareness
 - Supports 1024 groups
 - Port/Host-based IGMP Snooping Fast Leave
 - Report Suppression
 - MLD Snooping:
 - MLD v1, MLD v2 awareness
 - Supports 1K groups
 - Host-based MLD snooping Fast Leave
 - IGMP Authentication
 - IGMP/MLD Proxy Reporting²
- VLAN**
 - 802.1Q Tagged VLAN
 - VLAN Group:
 - Max. 4K VLAN
 - Port-based VLAN
 - MAC-based VLAN
 - GVRP:
 - Max. 255 dynamic VLANs
 - 802.1v Protocol VLAN
 - VLAN Trunking
 - Asymmetric VLAN³
 - Double VLAN (Q-in-Q):
 - Port-based Q-in-Q
 - Selective Q-in-Q
 - ISM VLAN
 - VLAN Translation
 - Voice VLAN⁴
- L3 Features**
 - IPv6 Neighbor Discovery (ND)
- Quality of Service (QoS)**
 - Bandwidth Control:
 - Port-based (Ingress/Egress, min. granularity 8 kbps)²
 - Flow-based (Ingress/Egress, min. granularity 8 kbps)²
 - Per egress queue bandwidth control (min. granularity 8 kbps)²
 - 8 queues per port²
 - DSCP
 - 802.1p
 - Queue Handling:
 - Strict Priority
 - Weighted Round Robin (WRR)
 - Strict + WRR
 - CoS Based on:
 - Switch Port
 - VLAN ID
 - 802.1p Priority Queues
 - MAC Address
 - Ether Type
 - IPv4/v6 Address
 - IPv6 Traffic Class
 - IPv6 Flow Label
 - TOS
 - DSCP
 - Protocol Type
 - TCP/UDP Port
 - User-Defined Packet Content
 - Time-based QoS
 - Three Color Marker²
 - trTCM
 - srTCM
 - Supports the following actions for flows:
 - Remark 802.1p Priority Tag
 - Remark TOS/DSCP Tag
 - Bandwidth Control
 - Flow Statistic
- Access Control List (ACL)**
 - Up to 1024 ingress access rules
 - ACL based on:
 - Switch Port
 - VLAN ID
 - 802.1p Priority
 - MAC Address
 - Ether Type
 - IPv4/v6 Address
 - IPv6 Traffic Class
 - IPv6 Flow Label
 - TOS
 - DSCP
 - Protocol Type
 - TCP/UDP Port
 - User-Defined Packet Content
 - Time-based ACL
 - ACL Statistics
 - CPU Interface Filtering
- Security**
 - SSH v1/v2
 - SSL v1/v2/v3
 - Port Security:
 - up to 64 MAC addresses per port
 - Broadcast/Multicast/Unicast Storm Control
 - Traffic Segmentation
 - IP-MAC-Port Binding (IMPB):
 - ARP Inspection
 - IP Inspection
 - DHCP Snooping
 - D-Link Safeguard Engine
 - DHCP Server Screening
 - DHCP Client Filtering
 - DoS Attack Prevention
 - ARP Spoofing Prevention
 - BPDU Attack Protection
 - NetBIOS/NetBEUI Filtering²
 - L3 Control Packet Filtering
- AAA**
 - 802.1X:
 - Port-based Access Control
 - Host-based Access Control
 - Dynamic VLAN Assignment
 - Identity-driven security policy assignment: QoS, VLAN, ACL
 - MAC-based Access Control (MAC)²
 - Port-based Access Control
 - Host-based Access Control
 - Identity-driven policy assignment: QoS, ACL, VLAN
 - Microsoft® NAP (IPv4/v6):
 - Supports 802.1x NAP
 - Supports DHCP NAP
 - Guest VLAN
 - RADIUS
 - TACACS
 - TACACS+
 - XTACACS+
 - Trusted Host
 - RADIUS Accounting
 - Four-level User Account



Layer 2 Management Switches

OAM

- Cable Diagnostics
- 802.3ah Ethernet Link OAM
- Dying Gasp
- 802.1ag Connectivity Fault Management (CFM)
- 802.3ah D-link Unidirectional Link Detection (DULD) ²
- sFlow⁴

Green

- Powering Saving By Time-based PoE ²
- D-Link Green 3.0: Power-saving function
 - LED Shut-Off ⁴
 - Port Shut-Off ⁴
 - System Hibernation⁴

Management

- Web-based GUI (Supports IPv4)²
- Command Line Interface (CLI)
- Telnet Server/Client (Supports IPv4/v6)
- TFTP Client (Supports IPv4/v6)
- FTP Client (Supports IPv4)
- ZModem
- Comand Logging
- SNMP v1/v2c/v3
- SNMP Traps
- System Log
- SMTP
- RMON v1:
 - Supports 1,2,3,9 groups
- RMON v2:
 - Supports ProbeConfig group
- LLDP
 - 802.1AB
- LLDP-MED⁴
- BootP/DHCP Client
- DHCP Auto-Configuration
- DHCP Relay (Supports IPv4)

- DHCP Relay Option 12
- DHCP Relay Option 82
- PPPoE Circuit-ID Tag Insertion
- Dual Image³
- Flash File System²
- CPU Monitoring
- Memory Monitoring
- SNTP
- Debug Command
- Password Recovery
- Password Encryption
- Ping (Supports IPv4/v6)
- Traceroute
- Multiple IP Interface
- Microsoft® NLB (Network Load Balancing) Support

MIB

- RFC1065, 1066, 1155, 1156, 2578 MIB Structure
- RFC1212 Concise MIB Definitions
- RFC1213 MIB II
- RFC1215 MIB Traps Convention
- RFC1493, 4188 Bridge MIB
- RFC1157, 2571-2576 SNMP MIB
- RFC1901-1908, 3418, 3636, 1442, 2578 SNMPv2-MIB
- RFC271,1757, 2819 RMON MIB
- RFC2021 RMONv2 MIB
- RFC1398, 1643, 1650, 2358, 2665, 3635 Etherlike-MIB
- RFC2668 802.3 MAU MIB
- RFC2674, 4363 802.1p MIB
- RFC2233, 2863 IF MIB
- RFC2618 RADIUS Authentication Client MIB
- RFC4022 MIB for TCP
- RFC4113 MIB for UDP
- RFC3298 MIB for Diffserv
- RFC2620 RADIUS Accounting Client MIB
- RFC 2925 Ping & Traceroute MIB

- Running configuration write and backup
- TFTP uploads and downloads
- Trap MIB
- RFC 2465 IPv6 MIB
- RFC 2466 ICMPv6 MIB
- RFC 2737 Entity MIB
- RFC 4293 IPv6 SNMP Mgmt Interface MIB
- Private MIB
- RFC 3289 DIFFSERV MIB

IETF® Standard

- RFC768 UDP
- RFC791 IP
- RFC792 ICMPv4
- RFC2463, 4443 ICMPv6
- RFC4884 Extended ICMP to Support Multi-Part Messages
- RFC793 TCP
- RFC826 ARP
- RFC1338, 1519 CIDR
- RFC2474, 3168, 3260 Definition of the DS Field in the IPv4 and IPv6 Header¹
- RFC1321, 2284, 2865, 2716, 1759, 3580, 3748 Extensible Authentication Protocol (EAP)
- RFC2571, RFC2572, RFC2573, RFC2574 SNMP

IPv6

- RFC1981 Path MTU Discovery
- RFC2460 IPv6
- RFC2461, 4861 Neighbor Discovery
- RFC2462, 4862 IPv6 Stateless Address Auto-configuration
- RFC2464 IPv6 Neighbor over Ethernet and definition
- RFC3513, 4291 IPv6 Addressing Architecture
- RFC2893, 4213 IPv4/IPv6 dual stack function
- IPv6 Ready Phrase 2 Logo

¹Available on DES-3200-10/18/26/28 B1, DES-3200-26/28/28P/52/52P C1

²Available on DES-3200-26/28/28P/52/52P C1

³Available on DES-3200-10/18/26/28 B1

⁴Available on DES-3200-26/28/28P/52/52P C1 (Future firmware release)

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Optional Products

Optional Management Software

DV-600S	D-View 6.0 Network Management System (Standard Edition)
DV-600P	D-View 6.0 Network Management System (Professional Edition)

Optional SFP Transceivers

DEM-310GT	1000BASE-LX, Single-mode, 10 km
DEM-311GT	1000BASE-SX, Multi-mode, 550 m
DEM-312GT2	1000BASE-SX, Multi-mode, 2 km
DEM-314GT	1000BASE-LHX, Single-mode, 50 km
DEM-315GT	1000BASE-ZX, Single-mode, 80 km
DEM-210	100BASE-FX, Single-mode, 15 km
DEM-211	100BASE-FX, Multi-mode, 2 km

Optional WDM SFP Transceivers

DEM-330T	1000BASE-LX, Wavelength Tx: 1550 nm Rx: 1310 nm, Single-mode, 10 km
DEM-330R	1000BASE-LX, Wavelength Tx: 1310 nm Rx: 1550 nm, Single-mode, 10 km
DEM-331T	1000BASE-LX, Wavelength Tx: 1550 nm Rx: 1310 nm, Single-mode, 40 km
DEM-331R	1000BASE-LX, Wavelength Tx: 1310 nm Rx: 1550 nm, Single-mode, 40 km
DEM-220T	100BASE-FX, Wavelength Tx: 1550 nm Rx: 1310 nm, Single-mode, 20 km
DEM-220R	100BASE-BX, Wavelength Tx: 1310 nm Rx: 1550 nm, Single-mode, 20 km



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