

Product Highlights

Versatile Advanced Functions

Supports a range of management, L2, and IPv6 features for network management such as bandwidth control, Voice VLAN¹, and network load balancing

Flexible Hardware Design

Choose from 9" to 19" models with 8, 16, 24, or 48 10/100BASE-TX and 2 or 4 Combo 1000BASE-T/SFP ports with AC/DC input to fit your networking needs

Comprehensive Security Solution

Supports Access Control List (ACL) and multiple user authentication methods including 802.1X/Web-Based (WAC)¹, and MAC-Based (MAC) Access Control to keep the network secure



DES-3200 Series

Layer 2 Management Switches

Features

Flexible Hardware Design

- 8, 16, 24, or 48 10/100BASE-TX ports
- 1 or 2 Combo 1000BASE-T/SFP ports
- 1 or 2 SFP ports
- 9", 11", or 19" Rack-mount
- Support 802.3at (PoE+) and 802.3af (PoE) for PoE models

Surge Protection

• All Ethernet ports have 6 KV surge protection

L2 Features

- 802.1D STP, 802.1w RSTP, and 802.1s MSTP
- · Loopback Detection
- 802.1AX and 802.3ad Link Aggregation
- Voice VLAN¹

Security

- SSH/SSL
- · Port Security
- Access Control List (ACL)
- 802.1X / Web-Based (WAC)¹/MAC-Based (MAC) Access Control
- Guest VLAN
- IP-MAC-Port Binding (IMPB)

Traffic Monitoring and Bandwidth Control

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

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, or 48 10/100 Mbps Fast Ethernet connections and various SFP or combo Gigabit/SFP ports uplink options. The DES-3200-10/18 comes in a 9/11-inch compact size and incorporates a fanless design suitable for desktop, telecom cabinet, or distribution box deployment. The DES-3200-28 and 52 models are 1U 19" rack mount size and provide 24/48 copper 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-3200-28P/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. The 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 of the DES-3200 series feature embedded 2 or 4 Gigabit SFP uplinks, which provides flexible network topology choices such as ring, tree, or mixed.

Security and 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 various multi-layer Access Control List (ACL) rules. Administrators are able to limit the network services or access rights 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 any 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 switch supports 802.1p and advanced packet classification 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 VoIP or IPTV. Furthermore, the DES-3200 series supports automatic, effective QoS function for voice traffic. The Voice VLAN¹ includes the voice end points automatically in to a dedicated VLAN with higher priority to guarantee the quality and security of the voice traffic.

Traffic and Bandwidth Control

The bandwidth control feature allows network administrators to define the ingress/egress throughput levels for each port with granularity down to 8 Kbps. The switch also supports the storm control feature which minimizes damages 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.

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 shows its ability to 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 (DULD) functions can improve network management on the Ethernet 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 get IP addresses from DHCP. It makes the switch deployment easier and quicker, especially in a large scale network. LLDP and LLDP-MED¹ 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 Logo Phase 2 which guarantees the 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 grow and the need for larger addressing and higher security becomes critical, the DES-3200 Series supports various IPv6 ACL, IMPBv6¹, and L3 Control Packet Filtering functions to protect the network against attacks and meet the requirements for the design of the IPv6 architecture.





DES-3200-10



DES-3200-18



DES-3200-28



DES-3200-28P



DES-3200-52



DES-3200-52P



If the worst should happen to your network you need the very best support and fast. Downtime costs your business money. D-Link Assist maximises your uptime by solving technical problems quickly and effectively. Our highly trained technicians are on standby around the clock, ensuring that award-winning support is only a phone call away.

With a choice of three affordable service offerings covering all D-Link business products, you can select the package that suits you best:

D-Link Assist Gold - for comprehensive 24-hour support

D-Link Assist Gold is perfect for mission-critical environments where maximum uptime is a high priority. It guarantees four hour around-the-clock response. Cover applies 24/7 for every day of the year including holidays.

D-Link Assist Silver - for prompt same-day assistance

D-Link Assist Silver is designed for 'high availability' businesses that require rapid response within regular working hours. It provides a four hour response service Monday to Friday from 8am to 5pm, excluding holidays.

D-Link Assist Bronze - for guaranteed response on the next business day

D-Link Assist Bronze is a highly cost-effective support solution for less critical environments. Response is guaranteed within eight business hours Monday to Friday from 8am to 5pm, excluding holidays.

D-Link Assist can be purchased together with any D-Link business product. So whether you're buying switching, wireless, storage, security or IP Surveillance equipment from D-Link, your peace of mind is guaranteed. D-Link Assist also offers installation and configuration services to get your new hardware working quickly and correctly.



Technical Specifications				
General	DES-3200-10	DES-3200-18	DES-3200-28	DES-3200-28P
Size	9" inch Standard Rack- mount Width, 1U Height	11" inch Standard Rack- mount Width, 1U Height	19" inch Standard Rack-mount Width, 1U Height	
Interface	8 10/100 Base-TX + 1 100/1000 SFP +1 Combo 10/100/1000 BASE-T/ 100/1000 SFP	16 10/100 Base-TX + 1 100/1000 SFP + 1 Combo 10/100/1000 BASE-T / 100/1000 SFP	24 10/100 Base-TX + 2 100/1000 SFP + 2 Combo 10/100/1000 BASE-T/ 100/1000 SFP	24 10/100 Base-TX PoE +2 10/100/1000BASE-T + 2 Combo 10/100/1000 BASE-T/ 100/1000 SFP
Console Port	RJ-45			
Performance				
Switching Capacity	5.6 Gbps	7.2 Gbps	12.6	3 Gbps
64-byte Maximum Forwarding Rate	4.2 Mpps	5.4 Mpps	9.5	Mpps
MAC Address Table Size	16K Entries			
SDRAM for CPU	128 M DDR2			
Packet Buffer	1.5 MB			
Flash Memory	32 MB			
Jumbo Frame	12 KB			
LED				
Power (Per Device)	✓			
Console (Per Device)	✓			
Link/Active/Speed (Per Port)	✓			
Physical/Environmental				
MTBF	738,788 hours	670,243 hours	590,424 hours	189,396 hours
Acoustic	0 dB (No Fan)		39.2 dB at low speed, 51.2 dB at High speed	
Heat Dissipation	41.94 BTUs per hour	48.422 BTUs per hour	61.039 BTU per hour	855.696 BTU per hour
Power Input	AC Input: 100 – 240 V AC, 50-60 Hz			
Maximum PoE Power Budget	N/A	N/A	N/A	188 Watts
Maximum Power Consumption	13.54 Watts	15.44 Watts	20.83 Watts	250.78 Watts
Dimension (W x D x H)	228.5 x 195 x 44 mm (9.00 x 7.68 x 1.73 inches)	280 x 180 x 44 mm (11.02 x 7.09 x 1.73 inches)	441 x 210 x 44 mm (17.36 x 8.27 x 1.73 inches)	441 x 308 x 44 mm (17.36 x 12.13 x 1.73 inches)
Ventilation	Fanless Smart Fan			
Power Surge Protection	All Ethernet ports support IEC61000-4-5 10/700us 6 KV surge protection			
Operation Temperature	-5 to 50 °C (23 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	IPv6 Ready Logo Phase 2			



Technical Specifications			
General	DES-3200-52	DES-3200-52P	
Size	19" inch Standard Rack-mount Width, 1U Height		
Interface	48 10/100 Base-TX + 2 100/1000 SFP + 2 Combo 10/100/1000 BASE-T /100/1000 SFP	48 10/100 Base-TX PoE + 2 10/100/1000 BASE-T + 2 Combo 10/100/1000 BASE-T / 100/1000 SFP	
Console Port	RJ-45		
Performance			
Switching Capacity	17.6 Gbps		
64-byte Maximum Forwarding Rate	13.1 Mpps		
MAC Address Table Size	16K	Entries	
SDRAM for CPU	128 M DDR2		
Packet Buffer	1.5 MB		
Flash Memory	32 MB		
Jumbo Frame	12 KB		
LED			
Power (Per Device)	✓ ·		
Console (Per Device)	✓		
Link/Active/Speed (Per Port)	✓		
Physical/Environmental			
MTBF	440,074 hours	189,396 hours	
Acoustic	0 dB if fan is off, 32.8 dB if fan is on	39.2 dB at low speed, 51.2 dB at High speed	
Heat Dissipation	113.90 BTU per hour	1608.156 BTU per hour	
Power Input	AC Input: 100 – 240 VAC, 50-60 Hz		
Maximum PoE Power Budget	NA	Max: 370 W	
Maximum Power Consumption	33.38 Watts	471.6 Watts	
Dimension (W x D x H)	441 x 308 x 44 mm (17.36 x 12.13 x 1.73 inches)		
Ventilation	Smart Fan		
Power Surge Protection	All Ethernet ports support IEC61000-4-5 10/700us 6 KV surge protection		
Operation Temperature	-5 to 50 °C (23 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 Certification	IPv6 Ready Logo Phase 2		



Software	All Models Virtual Stacking D-Link Single IP Management Up to 32 units per Virtual Stack		
Stackability			
L2 Features	MAC address table: 16K Flow Control 802.3x Flow Control HOL Blocking Prevention Jumbo Frame up to 12K bytes Spanning Tree Protocols 802.1D STP 802.1w RSTP 802.1s MSTP BPDU Filtering Root Restriction Loopback Detection	Link Aggregation Complies 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-3200-28/28P: 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 Support 1 K groups Host-based MLD snooping Fast Leave IGMP Authentication IGMP/MLD Proxy Reporting ¹ 	
VLAN	 802.1Q Tagged VLAN VLAN Group Max. 4K VLAN Port-based VLAN MAC-based VLAN GVRP 802.1v Protocol VLAN 	 VLAN Trunking Double VLAN (Q-in-Q) Port-based Q-in-Q Selective Q-in-Q ISM VLAN VLAN Translation Voice VLAN¹ 	
L3 Features	IPv6 Neighbor Discovery (ND)		
Quality of Service (QoS)	Bandwidth Control Port-based (Ingress/Egress, Min. Granularity 8 Kbps) Flow-based (Ingress/Egress, Min. Granularity 8 Kbps) Per egress queue bandwidth control (Min. Granularity 8 Kbps) 8 Queues per Port	 DSCP 802.1p Queue Handling Strict Priority Weighted Round Robin (WRR) Strict + WRR Three Color Marker trTCM srTCM 	
Quality of Service (QoS)	CoS Based on: Switch port 802.1p Priority Queues VLAN ID MAC Address Ether type TOS DSCP	Protocol Type TCP/UDP Port IPv6 Traffic Class IPv6 Flow Label User-Definited Packet Content Supports 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 802.1p Priority VLAN ID Ether Type IPv4/v6 address DSCP Protocol Type TCP/UDP Port Number IPv6 Traffic Class IPv6 Flow Label 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 ARP Inspection IP Inspection UHCP Snooping	 D-Link Safeguard Engine DHCP Server Screening DHCP Client Filtering ARP Spoofing Prevention BPDU Attack Protection NetBIOS/NetBEUI Filtering DoS Attack Prevention L3 Control Packet Filtering 	
AAA	802.1X Port-based Access Control Host-based Access Control Dynamic VLAN assignment Identity-driven Policy (VLAN, ACL, or QoS) Assignment MAC-based Access Control (MAC) Port-based Access Control Host-based Access Control Web-based Access Control Port-based Access Control Host-based Access Control Host-based Access Control	• Microsoft® NAP(IPv4/v6¹) • Support 802.1X NAP • Support DHCP NAP • Guest VLAN • RADIUS Accounting • RADIUS (IPv4/v6¹) • TACACS • TACACS+ • XTACACS+ • Trusted Host	
OAM	Cable Diagnostics 802.3ah Ethernet Link OAM Dying Gasp	802.1ag Connectivity Fault Management (CFM) 802.3ah D-Link extension: D-Link Unidirectional Link Detection (DULD)	
Green	 D-Link Green 3.0: Power saving function LED Shut-Off¹ Port Shut-Off¹ System Hibernation¹ 	Power Saving by Time-based PoE	
Management	 Web-based GUI (IPv4) Command Line Interface (CLI) Telnet Server/ Client (IPv4) TFTP Client (IPv4) FTP Client (IPv4) Zmodem Command Logging SNMP v1/v2c/v3 SNMP Traps System Log 	• RMON v1 • Supports 1,2,3,9 Groups • RMON v2 • Supports ProbeConfig Group • LLDP • 802.1AB • LLDP-MED¹ • BootP/DHCP Client • DHCP Auto-Configuration • DHCP Relay (IPv4)	
Management	 DHCP Relay Option 12 DHCP Relay Option 82 PPPoE Circult-ID Tag Insertion Flash File System SNTP CPU Monitoring Memory Monitoring 	 Debug Command Password Encryption Password Recovery Microsoft® NLB (Network Load Balancing) Support Ping (IPv4/v6¹) Traceroute Multiple IP Interface 	

MIB	RFC RFC1065, 1066, 1155, 1156, 2578 MIB Structure RFC 1212 Concise MIB Definitions RFC1213 MIB II RFC 1215 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 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	 RFC2021 RMONv2 MIB RFC1398, 1643, 1650, 2358, 2665, 3635 Ether-like MIB RFC2668 802.3 MAU MIB RFC2674,4363 802.1p MIB RFC 2233, 2863 IF MIB RFC 2618 RADIUS Authentication Client MIB RFC4022 MIB for TCP RFC4113 MIB for UDP RFC 3298 MIB for Deffserv. RFC2620 RADIUS Accounting Client MIB RFC 2925 Ping& Traceroute MIB Running configuration write and backup TFTP uploads and downloads Trap MIB 	
IETF® Standard	 RFC768 UDP RFC791 IP RFC792 ICMPv4 RFC2463, 4443 ICMPv6 RFC4884 Extended ICMP to Support Multi-Part Messages RFC793 TCP 	 RFC 2474, 3260 Definition of the DS Field in the IPv4 and IPv6 Header RFC 1321, 2284, 2865, 3580, 3748 Extensible Authentication Protocol (EAP) RFC2571, RFC2572, RFC2573, RFC2574 SNMP RFC826 ARP 	
IPv6	 RFC1981 Path MTU Discovery RFC2460 IPv6 RFC2461, 4861 Neighbor Discovery RFC2462, 4862 IPv6 Stateless Address Autoconfiguration 	 RFC2464 IPv6 Neighbor over Ethernet and definition RFC3513, 4291 IPv6 Addressing Architecture RFC2893, 4213 IPv4/IPv6 dual stack function IPv6 Ready Logo Phase 2 	
Optional Management Software			
DV-600S	D-View 6.0 Network Management Software (Standard Edition)		
DV-600P	D-View 6.0 Network Management Software (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	100BASE-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-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		

¹ Available on future firmware release



For more information: www.dlink.com

