

### Security Switch For Enterprise & Remote Branch Offices

- 8, 14 or 20 10/100/1000BASE-T Gigabit ports
- 2 or 4 combo 10/100/1000BASE-T/SFP
- Integrated Malicious Traffic and Performance Degradation Prevention functions
- Silent Fanless ventilation suitable for desktops\*

### L2 Features

- 4K VLAN
- Jumbo Frames up to 10,240 bytes
- MLD v1/v2 Snooping
- Loopback Detection
- ISM VLAN
- Private VLAN

### Security

- 802.1X Authentication
- Web-based Access Control (WAC)
- MAC-based Access Control (MAC)
- IP-MAC-Port Binding
- Multiple Authentication
- D-Link Safeguard Engine
- SSH/SSL
- Supports Microsoft NAP (IPv4/v6)
- D-Link ZoneDefense
- DHCP Server Screening
- ARP Spoofing Prevention

### Quality of Service

- 802.1p Priority Queues
- Multi-layer CoS

### Traffic Monitoring & Bandwidth Control

- Traffic Segmentation
- Bandwidth Control
- Broadcast Storm Control
- Port Mirroring

## xStack L2 Security Gigabit Switches

**End-to-End Security**

**High Tolerance up to 50° C**

**Fanless**



The DGS-3200 xStack series is managed layer 2 Security Gigabit switches with IPv6 support, designed to maximize network performance in enterprise environments. This series includes the DGS-3200-10, the DGS-3200-16, and the DGS-3200-24. The switches also implement an integrated and comprehensive D-Link End-to-End Security solution to provide total network defense against internal and external threats. Furthermore, D-Link Green Technology decreases energy costs by reducing power consumption, without compromising on performance.

The DGS-3200-10 comes in a compact, 11-inch rack-mount case with an innovative fanless design, and emits less heat and noise than other standard switches. The DGS-3200-16 supports a smart fan feature which has heat sensors and a fan that maintains the temperature of the device for optimum performance. To minimize noise reduction, the fan is off by default. These switches are ideal for deployment in offices or environments that require silence. The DGS-3200-24 also includes a smart fan feature, including two fans that are set to low speed by default.

#### End-to-End Security (E2ES)

D-Link extends intelligence by combining endpoint, joint and gateway security to provide a complete End-to-End Security Solution. This integrated security solution combines switches, firewall and Wireless LAN with unified threat management for easy security management for the edge, to the core enterprise network. The switches provide a rich list of endpoint security features to add confidence and assurance towards your network. It offers comprehensive protection, including user authentication, VLAN authorization, traffic control and segmentation, node address control, and attack mitigation.

The switches also support 802.1X Port-based/Host-based Access Control, Guest VLAN, and RADIUS and TACAS+ for strict access control over the network along with Web-based Access Control (WAC) and MAC-based Access Control (MAC) for easy deployment. User-defined Access Control List (ACL) secures your internal IT network against viruses and

enhances switch performance. The IP-MAC-Port Binding feature allows administrators to bind a source IP address with an associated MAC and also lets the administrator to define the port number to enhance user access control. The switches also support DHCP Screening, a feature that denies access to rogue DHCP servers. Enable this function to filter out all the DHCP Server packets from a specific port. Other security features like port security and traffic segmentation provide granular control to businesses and enhance network security.

D-Link's joint security solution provides admission control and real-time defense through Microsoft's NAP (Network Access Protection) and D-Link's ZoneDefense respectively. The ZoneDefense technology allows businesses to integrate their switches with D-Link's NetDefend firewall, for full coverage and proactive security architecture.

#### IPv6 Technology

The DGS-3200 series supports both IPv4 and IPv6 protocols to meet the ever-increasing demand of larger address space. IPv6 simplifies, streamlines network configuration and also reduces costs of deployment. These switches have been certified with IPv6 Ready Logo Phase 2 from the IPv6 forum, a worldwide IPv6 advocacy consortium. The IPv6 Ready Logo Program provides conformance and interoperability of IPv6 products.

Furthermore, the switches embrace Microsoft Network Access Protection (NAP). NAP is a policy enforcement technology built into the Windows Vista® or XP SP3 operating system that allows customers to protect network assets from unhealthy computers by enforcing compliance with network health policies. MLD snooping enhances efficiency in selective distribution by forwarding multicast data to ports that receive data, rather than flooding all ports in a VLAN. Features such as QoS, ACL (based on IPv6 flow label and traffic class), provide a faster and more efficient service. For IPv6 Management, the switches support Web, telnet and SNMP over IPv6.

\* For DGS-3200-10 model only



### Configuration/Management

- Web-Based GUI (supports IPv4/v6)
- Command Line Interface (CLI)
- Telnet (supports IPv4/v6)
- SNMP v1/v2c/v3
- RADIUS/TACACS+ Authentication for Management Access
- D-Link Single IP Management (SIM)
- Dual Image/Configuration
- Combo Console\*
- SD Card Reader\*

### D-Link Green Technology

D-Link is striving to take the lead in developing innovative and power-saving technology that does not sacrifice operational performance or functionality. The DGS-3200 series implements the D-Link Green Technology, which includes a power saving mode, reduced power consumption, reduced heat dissipation, and cable length detection. The power saving feature automatically powers down ports that have no link or link partner.

### Resilience/Performance Enhancement

The DGS-3200 series offers superior performance and enhanced network resilience, through the latest 802.1D-2004, 802.1w, and 802.1s Spanning Tree Protocols. STP allows you to configure the switch with a redundant backup bridge path, so transmission and reception of packets can be guaranteed in event of any fail-over switch on the network. 802.3ad Link Aggregation provides aggregated bandwidth between switches or servers to increase redundancy for higher availability.

The switches support 802.1p for Quality of Service (QoS). This standard is a mechanism that allows real-time traffic classification into 8 priority levels mapped to 8 queues. Packet classification is based on TOS, DSCP, MAC, IPv4, VLAN ID, TCP/UDP port number, protocol type and user defined packet content, which enables flexible configuration especially for real-time streaming multimedia applications such as voice over IP. The switches also provide a Safeguard Engine for network protection to increase switch's reliability, serviceability and availability.

### Traffic Control

Network administrators can define throughput levels for each port to allocate its essential bandwidth. Broadcast storm control and flow-based bandwidth control can reduce the level of damage from virus attacks or P2P applications to the network.

### Manageability

D-Link's 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. This virtual stack is managed as a single object, having all units maintained by one IP address. The DGS-3200 series also supports standard-based management protocols such as SNMP, RMON, Telnet, Console, web GUI and SSH/SSL security authentication.

For out-of-band management, the DGS-3200-24 comes with a combo console, a flexible choice of console type that includes an RS-232 DB-9 and an RJ-45 port. The switch is also equipped with an SD Card reader, allowing the user to boot images and upload configuration files directly from an SD Card. Furthermore, syslog files can also be conveniently saved to a card.

\* For DGS-3200-24 model only

Technical Specifications	DGS-3200-10	DGS-3200-16	DGS-3200-24
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Device Interfaces		8 10/100/1000BASE-T Gigabit Ports 2 Combo 10/100/1000BASE-T/SFP Ports RS-232 DB-9 Console Port	14 10/100/1000BASE-T Gigabit Ports 2 Combo 10/100/1000BASE-T/SFP Ports RS-232 DB-9 Console Port	20 10/100/1000BASE-T Gigabit Ports 4 Combo 10/100/1000BASE-T/SFP Ports Combo Console Port: RS-232 DB-9 and RJ-45 SD Card Reader
Performance	MAC Address Table Size	8K	16K	
	Switch Capacity	20Gbps	32Gbps	48Gbps
	64Bytes Maximum Packet Forwarding Rate	14.88Mpps	23.81Mpps	35.7Mpps
	Switching Method	Store and Forward		
	Packet Buffer Memory Size	128Kbytes	768Kbytes	
Flow Control	802.3x Standard in Full Duplex Mode	√	√	√
	Back Pressure in Half Duplex Mode	√	√	√
Diagnostic LEDs	Power (Per Device)	√	√	√
	Console (Per Device)	√	√	√
	SD Card Reader (Per Device)	-	-	√
	RPS (Per Device)	-	-	√
	Link/Activity/Speed (Per 10/100/1000BASE-T Port)	√	√	√
	Link/Activity/Speed (Per SFP Slot)	√	√	√
Power	AC Input Power: 100-240 VAC, 50-60 Hz			
Redundant Power Supply	-	-	Supports DPS-200 model	
Dimensions	280 (W) x 180 (D) x 43 (H) mm			440 (W) x 210 (D) x 44 (H) mm
Ventilation	Fanless	One Smart Fan (Default off)	Two Smart Fans (Default low speed)	
Temperature	Operating Temperature: 0° ~ 40°C Storage Temperature: -40° ~ 70°C		Operating Temperature: 0° ~ 50°C Storage Temperature: -40° ~ 70°C	
Humidity	5%-95% Non-condensing			
MTBF	726,077 Hours	258,724 Hours	502,576 Hours	
Power Consumption	20.9Watts (Max.)	28.9Watts (Max.)	41.9Watts (Max.)	
Heat Dissipation	71.3 BTU per hour	98.6 BTU per hour	142.9 BTU per hour	
EMI	FCC, CE, VCCI Class A, C-Tick			
Safety	UL, CB Report			

### 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)

\*Also supports D-View 5.1

#### Optional Redundant Power Supply

DPS-200	60Watts Redundant Power Supply
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#### Optional SFP Transceivers

DEM-310GT	1000BASE-LX, Single-mode, 10km
DEM-311GT	1000BASE-SX, Multi-mode, 500m
DEM-312GT2	1000BASE-SX, Multi-mode, 2km
DEM-314GT	1000BASE-LX, Single-mode, 50km
DEM-315GT	1000BASE-LX, Single-mode, 80km
DEM-210	100BASE-FX, Single-mode, 15km
DEM-211	100BASE-FX, Multi-mode, 2km

#### Optional WDM SFP Transceivers

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

### Software Features

#### Stackability

- Virtual Stacking
  - D-Link Single IP Management (SIM)
  - Up to 32 devices per Virtual Stack

#### L2 Features

- MAC Address Table
  - DGS-3200-10: 8K
  - DGS-3200-16: 16K
  - DGS-3200-24: 16K
- Flow Control
  - 802.3x Flow Control
  - HOL Blocking Prevention
- Jumbo Frames up to 10,240 Bytes
- IGMP Snooping
  - IGMP v1/v2/v3 Snooping
  - Support 256 groups
  - Host-based IGMP Snooping Fast Leave
  - Data Driven Multicast
- IGMP Authentication
- MLD Snooping
  - MLD v1/v2 Snooping
  - Support 256 groups
- Spanning Tree Protocol
  - 802.1D- 2004 Edition STP
  - 802.1w RSTP
  - 802.1s MSTP
  - BPDU Filtering
  - Root Restriction
- Loopback Detection
- 802.3ad Link Aggregation
  - DGS-3200-10: Max. 5 groups per device/8 ports per group
  - DGS-3200-16: Max. 8 groups per device/8 ports per group

- DGS-3200-24: Max. 12 groups per device/8 ports per group
- Port Mirroring
  - One-to-One
  - Many-to-one
  - Flow-based Mirroring

#### VLAN

- 802.1Q Tagged VLAN
- VLAN Group
  - Max. 4094 VLAN
- GVRP
  - Max. 255 Dynamic VLAN
- 802.1v protocol VLAN
- ISM VLAN
- MAC-based VLAN
- VLAN Trunking
- Private VLAN

#### QoS (Quality of Service)

- 802.1p Quality of Service
- 8 queues per port
- Queue Handling
  - Strict
  - Weighted Round Robin (WRR)
- CoS based on
  - Switch Port
  - VLAN ID
  - 802.1p Priority Queues
  - MAC Address
  - IPv4/IPv6 address
  - DSCP
  - TCP/UDP port number
  - Protocol Type
  - IPv6 Traffic Class/IPv6 Flow Label

- User-defined Packet Content
- Bandwidth Control
  - Port-based (Ingress/Egress, min. granularity 64Kb/s)
  - Flow-based (Ingress, min. granularity 64Kb/s)

#### Access Control List (ACL)

- Up to 200 Access Rules
- ACL based on
  - 802.1p Priority
  - VLAN ID
  - MAC Address
  - IPv4/IPv6 Address
  - DSCP
  - Protocol Type
  - TCP/UDP Port Number
  - IPv6 Traffic Class
  - IPv6 Flow Label
  - User-defined Packet Content
- Time-based ACL
- CPU Interface Filtering
- ACL Statistics

#### Security

- SSH v2
- SSL v1/v2/v3
- Port Security up to 64 MAC address per port
- Broadcast/Multicast/Unicast Storm Control
- Traffic Segmentation
- IP-MAC-Port Binding
  - ARP Packet Inspection
  - IP Packet Inspection
  - DHCP Snooping
  - Supports 512 address binding entries per device
- D-Link Safeguard Engine

- Microsoft® NAP
  - Supports 802.1X NAP (IPv4/IPv6)
  - Supports DHCP NAP (IPv4)
- DHCP Server Screening
- DHCP Client Filtering
- ARP Spoofing Prevention

### AAA

- 802.1X
  - Port-based Access Control
  - Host-based Access Control
  - Dynamic VLAN Assignment
- Web-based Access Control (WAC)
  - Port-based Access Control
  - Host-based Access Control
  - Dynamic VLAN Assignment
- MAC-based Access Control (MAC)
  - Port-based Access Control
  - Host-based Access Control
  - Dynamic VLAN Assignment
- Multiple Authentication
- Guest VLAN
- Authentication for Management Access
  - Supports RADIUS/TACACS+
- RADIUS Accounting

### Management

- Web-based GUI (Supports IPv4/IPv6)
- Command Line Interface (CLI)
- Telnet (Supports IPv4/IPv6)
- TFTP Client (Supports IPv4/IPv6)
- XModem
- ZModem
- SNMP v1/v2c/v3 (Supports IPv4/IPv6)
- SNMP Trap
- System Log
- RMON v1
  - Supports 1,2,3,9 groups
- RMON v2
  - Supports ProbeConfig group
- BootP/DHCP Client
- DHCP Auto-Configuration
- DHCP Relay
- DHCP Relay Option 82

- Dual Image
- Dual Configuration
- CPU Monitoring
- SNMP
- ICMPv6
- IPv6 Neighbor Discovery

### D-Link Green

- Power Saving Mode
  - Link Down Status
  - Cable Length Detection
- Compliant with RoHS 6

### OAM

- Cable Diagnostics

### MIB/IETF® Standard

- RFC1213 MIB-II
- RFC4188 Bridge MIB
- RFC1907 SNMPv2 MIB
- RFC1757, 2819 RMON MIB
- RFC2021, RMONv2 MIB
- RFC1643, 2358, 2665 Ether-like MIB
- RFC2674 802.1p MIB
- RFC2233, 2863 IF MIB
- RFC2618 RADIUS Authentication Client MIB
- RFC2925 Ping & Traceroute MIB
- RFC2620, RADIUS Accounting Client
- D-Link Private MIB
- RFC768 UDP
- RFC783 TFTP
- RFC791 IP
- RFC792 ICMP
- RFC793 TCP
- RFC826 ARP
- RFC854 Telnet
- RFC951, 1542 BootP
- RFC2068 HTTP
- RFC2138 RADIUS
- RFC2139, 2866 RADIUS Accounting
- RFC1492 TACACS
- RFC1157 SNMPv1
- RFC1901, 1908 SNMPv2c

- RFC2570, 2575 SNMPv3
- RFC3021 31-Bit Prefixes
- RFC2460 IPv6
- RFC4861 IPv6 Neighbor Discovery
- RFC4862 IPv6 Stateless Address Autoconfiguration
- RFC4443 ICMPv6
- RFC1981 IPv6 Path MTU Discovery
- RFC5095 Deprecation of Type 0 Routing Headers in IPv6



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