

## xStack® DGS-3200 Series (DGS-3200-10 and DGS-3200-24)



### D-Link Green<sup>™1</sup>

- + Ports that have No Link are Automatically Powered Down
- + Budgets power output based on Ethernet cable length

#### Hardware Features

- + 10 or 24 10/100/1000BASE-T Gigabit Ports
- + Fiber Support with 2 or 4 Combo SFP Ports
- + Designed Without Fans for Quiet Operation<sup>2</sup>

### L2 Feature

- + 4K VLAN
- + Jumbo Frame Support up to 10,240 Bytes
- + MLD Snooping v1/v2
- + Loopback Detection

#### Security

- + Integrated Malicious Traffic and Performance Degradation Prevention Functions
- + 802.1X Authentication
- + Web-based Access Control (WAC)
- + MAC-based Access Control (MAC)
- + IP-MAC-Port Binding
- + SSH/SSL
- + Microsoft<sup>®</sup> NAP (supports IPv4/v6)
- + D-Link<sup>®</sup> ZoneDefense<sup>™</sup>

### Quality of Service

- + 8 Priority Queues
- + 802.1p Priority Queues/Multi-layer CoS

## Traffic Monitoring/Bandwidth Control

- + Traffic Segmentation
- + Bandwidth Control
- + Per Flow Bandwidth Control
- + Broadcast Storm Control
- + Port Mirroring

### Configuration/Management

- + Web-based GUI (Supports IPv4/v6)
- + Command Line Interface
- + Telnet Client/Server (Supports IPv4/v6)
- + RADIUS/TACACS+ Authentication for Management Access
- + D-Link Single IP Management (SIM)
- + SNMP v1/v2c/v3
- + Dual Image/Configuration



# Managed 8-Port Gigabit L2 Switch with 2 1000BASE-T/SFP Combo Ports

# Managed 20-Port Gigabit L2 Switch with 4 1000BASE-T/SFP Combo Ports

#### Overview

The xStack<sup>®</sup> DGS-3200 Series offers a new generation of intelligence and defense with high performance, flexibility and robust security. These switches secure your network from viruses using their Access Control List (ACL), IP-MAC-Port Binding (IMPB) and Safeguard Engine<sup>™</sup> functions.

The DGS-3200-10 supports eight Gigabit ports with two combo SFP ports and is built with fanless technology to emit less heat and noise than standard switches. With its 11" footprint, the DGS-3200-10 is ideal for any office environment with limited space. Meanwhile, the DGS-3200-24 supports twenty Gigabit ports with four combo SFP ports and comes with a smart fan feature that has heat sensors and a fan that maintains the temperature of the device for optimal performance.

The DGS-3200-10 and DGS-3200-24, compared to any other model, are ideal for an office environment or circumstances that require silence.

#### D-Link Green<sup>™</sup> Technology

D-Link<sup>®</sup> is striving to take the lead in developing innovative and power-saving technology without sacrificing operational performance or functionality. The DGS-3200-24 implements D-Link Green<sup>TM</sup> technology, which includes a power-saving mode to reduce power consumption and heat dissipation. If a port does not have a cable link or the connected device is powered down, the port automatically goes into "sleep mode", reducing power usage and saving energy. (Note: D-Link Green technology is only implemented in the DGS-3200-24.)

#### **Comprehensive Security**

The xStack DGS-3200 Series offers a complete list of endpoint security features, bringing confidence and assurance to your network. It executes firm network security and comes with user-based identity control by implementing host-based 802.1X Authentication/ Authorization, along with clientless Web-based Access Control (WAC) and MAC-based Access Control (MAC) for easy deployment. The incorporation of sophisticated ACL user-defined functionality secures your network against viruses and worms while innovative IMPB prevents ARP spoofing and man-in-the-middle attacks by recognizing malicious users who falsify their IP or MAC address, assuring administrators that the IP information on the syslog server or firewall log is always correct. Other security features such as port security and traffic segmentation provide granular control to business environments, allowing administrators to enhance network security.

For clients with Windows® XP SP3, Windows Vista® or servers with Windows Server® 2008, the xStack DGS-3200 Series works in conjunction with the Microsoft® Network Access Protection (NAP) as part of an ecosystem that enforces compliance with network health policies. The switch will grant access only when network hosts comply with IT security policies such as up-to-date anti-virus signatures and operating system patches. This prevents an infected client or server from gaining access and further contaminating the network. D-Link combines NAP with D-Link ZoneDefense<sup>™</sup> technology for joint security that provides admission control and real-time defense. The D-Link ZoneDefense technology allows businesses to integrate the switch with a D-Link NetDefend<sup>™</sup> firewall to implement full coverage with a proactive security architecture.

## BUSINESS

#### IPv6 and IPv4 Technology

The xStack DGS-3200 Series provides current IPv4 networks with a simple migration path to IPv6 and protects your investment for future network upgrades when greater security and larger addressing becomes necessary. The IPv6 multicast host, the latest in protocol technology, enables maximum hardware performance. MLD snooping enhances efficiency in selective distribution by forwarding multicast data to receiving ports, rather than flooding all ports in a VLAN. Features such as an ACL that is based on IPv6 Traffic Class, as well as QoS also based on IPv6, provide faster and more efficient service. IPv6 Management supports Web, Telnet, and SNMP.

#### **Reliance/Performance Enhancement**

To enhance network resilience, the xStack DGS-3200 Series provides Spanning Tree protocols 802.1D, 802.1w, and 802.1s for redundant bridge paths. Link Aggregation provides aggregated bandwidth between switches or servers to increase redundancy for higher availability. Quality of Service (QoS) incorporates multilayer functions that support eight queues including 802.1p priority and packet classification based on TOS, DSCP, MAC, IP, VLAN ID and L4 TCP/UDP ports, enabling smooth Internet voice, video and streaming media applications. The switches also provide a Safeguard Engine™ for network protection to increase network 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.

#### Single IP Management

To simplify and speed up your management tasks, multiple switches can 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. Up to 32 D-Link switches, each supporting Single IP Management, can be managed under a single IP address.



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### **Technical Specifications**

Model	DGS-3200-10	DGS-3200-24	
Device Interfaces	8 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, RS-232 DB-9 Console Port, RJ-45, SD Card Slot	
Diagnostic LEDs	Per Device: Power, Console; Per 10/100/1000BASE-T Port: Link/Activity/Speed; Per SFP Slot: Link/Activity/Speed	Per Device: Power, Console, SD Card, RPS; Per 10/100/1000BASE-T Port: Link/Activity/Speed; Per SFP Slot: Link/Activity/Speed	
MAC Address Table	8K	16K	
Switch Capacity	20Gbps	48Gbps	
Max. Packet Forwarding Rate	14.88Mpps	35.7Mpps	
Switching Method	Store and Forward	Store and Forward	
Packet Buffer	128Kbytes	768Kbytes	
Flow Control	802.3x Standard in Full Duplex Mode Back Pressure in Half Duplex Mode	802.3x Standard in Full Duplex Mode Back Pressure in Half Duplex Mode	
Power	AC Input Power: 100-240 VAC, 50-60 Hz	AC Input Power: 100-240 VAC, 50-60 Hz	
Dimensions (W x D x H)	11.02in x 7.09in x 1.73in (280mm x 180mm x 43mm)	17.3in x 8.3in x 1.7in (440mm x 210mm x 44mm)	
Ventilation	Fanless	Two Smart Fans (Default Low Speed)	



# **D-Link**<sup>®</sup>

## xStack® DGS-3200 Series (DGS-3200-10 and DGS-3200-24)

Model	DGS-3200-10	DGS-3200-24	
Operating Temperature	32°F to 104°F (0°C to 40°C)	32°F to 122°F (0°C to 50°C)	
Storage Temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	
Humidity	5% ~ 95% Non-condensing	5% ~ 95% Non-condensing	
MTBF	726,077 Hours	502,576 Hours	
Power Consumption	20.9 Watts (Maximum)	41.9 Watts (Maximum)	
EMI	FCC Class A, CE, VCCI Class A, C-Tick	FCC Class A, CE, VCCI Class A, C-Tick	
Safety	UL, CB Report	UL, CB Report	
Noise Level	OdB (fanless)	44.4dB (Maximum)	
Software Specifications			
Stackability			
Virtual Stacking	+ Supports D-Link Single IP Management	+ Up to 32 Devices per Virtual Stack	
L2 Features	r oupports b Link onigie n' Munagement		
MAC Address Table	+ DGS-3200-10: 8K	- DCC 2200 24-16K	
	+ 802.3x Flow Control	+ DGS-3200-24: 16K	
Flow Control Jumbo Frames		+ HOL Blocking Prevention	
	Up to 10,240 Bytes		
IGMP Snooping	+ IGMP v1/v2/v3 Snooping	+ Support 256 Groups	
	+ IGMP Snooping Fast Leave	+ Data Driven Multicast	
MLD Snooping	+ MLD v1/v2 Snooping	+ Support 256 Groups	
Spanning Tree Protocol	+ 802.1D STP (2004 Edition)	+ 802.1w RSTP	
	+ 802.1s MSTP		
BPDU Filtering	Per Port/Per Device		
Loopback Detection	Yes		
802.3ad Link Aggregation	+ DGS-3200-10: Maximum 5 Groups per Device/8 Ports + DGS-3200-24: Maximum 12 Groups per Device/8 Ports per Group		
Port Mirroring	+ Support One-to-One	+ Many-to-One	
	+ Flow-based Mirroring		
VLAN			
VLAN Group	Maximum 4K Static VLAN Groups		
IEEE Standards	802.10 Tagged VLAN, 802.1v Protocol-based VLAN		
GVRP	Maximum 255 Dynamic VLAN Groups		
QoS (Quality of Service)			
CoS	802.1p Class of Service		
Queues	8 Queues		
Queue Handling	+ Strict	+ Weighted Round Robin (WRR)	
Bandwidth Control	+ Port-based (Ingress/Egress, min. granularity 512Kbps)	+ Flow-based (Ingress, min. granularity 64Kbps)	

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# **D-Link**<sup>®</sup>

## xStack® DGS-3200 Series (DGS-3200-10 and DGS-3200-24)

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		
ACL (Access Control List)			
Access Rules	Up to 200 Access Rules		
ACL based on	+ 802.1p Priority + VLAN ID		
AGE BUSCU ON	+ MAC Address	+ IPv4/IPv6 Address	
	+ DSCP	+ Protocol Type	
	+ TCP/UDP Port Number	+ IPv6 Traffic Class	
	+ IPv6 Flow Label + User-Defined Packet Content		
ACL	Time-based ACL		
CPU Interface Filtering	Yes		
Security			
	Manatan Q		
SSH	Version 2		
SSL	Version 1/2/3		
Port Security	Up to 64 MAC Addresses per Port		
Traffic Control	Broadcast/Multicast/Unicast		
Traffic Segmentation	Yes		
IP-MAC-Port Binding	+ Support 512 address binding entries per device	+ Support ARP/ACL Mode	
D-Link <sup>®</sup> Safeguard Engine™	Yes		
Microsoft <sup>®</sup> NAP	Supports IPv4/IPv6		
4AA			
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	+ Port-based Access Control	+ Host-based Access Control	
	+ Dynamic VLAN Assignment		
Guest VLAN	Yes		
RADIUS	Authentication/Accounting		
TACACS+	Authentication		
Management			
SNMP v1/v2c/v3	SNMP over IPv6		
RMON v1	Support 1, 2, 3, 9 Groups		
RMON v2	Supports ProbeConfig Group		
Additional Features		t Server/Client, TFTP Client, XModem, ZModem, SNMP Trap, ation, DHCP Relay, DHCP Relay Option 82, Dual Image, Dual eighbor Discovery	

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# **D-Link**<sup>®</sup>

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Power Saving Mode <sup>1</sup>	+ Link Down Detection	+ Cable Length Detection	
<b>RoHS Compliant</b>	Yes		
Network Standards			
MIB/IETF <sup>®</sup> Standard	RFC1643, 2358, 2665 Ether-like MIB, RFC MIB, RFC2925 Ping & Traceroute MIB, TCP, RFC826 ARP, RFC854 Telnet, RFC95	RFC1213 MIB-II, RFC1493 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, 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, RFC2620 RADIUS Accounting Client MIB, RFC1492 TACACS, RFC1157 SNMPv1, RFC1901, 1908 SNMPv2c, RFC2570, 2575 SNMPv3	
Warranty Information			
Warranty	Lifetime <sup>3</sup>		
Ordering Information			
Part Number	<u>Description</u>	Description	
DGS-3200-10	xStack Managed 8-Port Gigabit L2 Swi	xStack Managed 8-Port Gigabit L2 Switch, 2 1000BASE-T/SFP Combo Ports, IPv6	
DGS-3200-24	xStack Managed 20-Port Gigabit L2 Sw	xStack Managed 20-Port Gigabit L2 Switch, 4 1000BASE-T/SFP Combo Ports, IPv6, D-Link Green	
DEM-211	100BASE-FX Multimode LC SFP Transc	100BASE-FX Multimode LC SFP Transceiver, up to 2Km	
DEM-310GT	1000BASE-LX SFP Module, up to 10Km	1000BASE-LX SFP Module, up to 10Km	
DEM-311GT	1000BASE-SX SFP Module, up to 550m	1000BASE-SX SFP Module, up to 550m	
DPS-200	Redundant Power Supply Unit, 60 Watt	Redundant Power Supply Unit, 60 Watt RPSU	
DV-600S	D-View 6.0 Network Management Soft	D-View 6.0 Network Management Software, Standard Version	
DV-600P	D-View 6.0 Network Management Soft	ware, Professional Version	

<sup>1</sup> DGS-3200-24 only.
<sup>2</sup> DGS-3200-10 only.
<sup>3</sup> Lifetime Warranty available only in the USA and Canada if purchased on or after May 1, 2009. Visit www.dlink.com for warranty details.

All references to speed are for comparison purposes only. Product specifications, size and shape are subject to change without notice, and actual product appearance may differ from that depicted herein.



