

L2+ Gigabit Stack

Enhanced Access Layer Switch

- 24 or 48 Gigabit Ports Per Switch
- 4 Combo SFP Fiber Gigabit
- 2 or 3 Open Slots for Optional 10-Gigabit Uplinks
- Virtual Stack or Physical High-Speed Stacking
- Enhanced L2+ With Static Routing, Multi-Layer ACL and QoS
- Malicious Traffic and Performance Degradation Prevention
- 802.3af Power Over Ethernet Option for Special Installation Sites

FEATURES

Flexible Choices

- 24 or 48 10/100/1000BASE-T Ports
- 4 Combo SFP for Fiber Gigabit
- 2 or 3 Open Slots for Optional 10-Gigabit Uplinks
- Stackable Through Optional 10-Gigabit Coaxial Ports
- Optional External Redundant Power Supply
- With or Without 802.3af Power Over Ethernet

xStack Integration

- Virtual Stack of Up to 32 Units
- Single IP Management for Integration With L3 Core Switches
- Physical Stackable to 12 Units, 576 Gigabit Ports¹

Enhanced L2+ Features

- IP v.4/v.6 Static Routing

Security

- L2/L3/L4 Multi-Layer Access Control
- D-Link Safeguard Engine
- 802.1x Authentication, External RADIUS/TACACS+ Support
- SSH/SSL Support
- ZoneDefense
- Support Microsoft® NAP

Quality of Service

- 802.1p Priority Queues/Multi-Layer CoS
- 8 Hardware Queues

Traffic Monitoring/Bandwidth Control

- Traffic Segmentation
- Bandwidth Control Down to 64Kbps
- Per Flow Bandwidth Control
- Broadcast Storm Control Down to 1pps
- 802.3ad Link Aggregation (Port Trunks)
- Port Mirroring

Configuration/Management

- Web-Based
- Command Line Interface (CLI)
- SNMP v.1, v.2c, v3
- D-Link Single IP Management (SIM) v.1.6
- Telnet Server
- Dual Images/Configurations

¹ Calculation based on 12 units of DGS-3450 stacked in the Ring Topology.

The xStack DGS-3400 series of next generation switches delivers performance, flexibility, security, multi-layer Quality of Service (QoS) and redundant power option for the SMB and enterprises. With high Gigabit port densities for desktop connections, SFP fiber connectivity, 10-Gigabit uplink options and enhanced Layer 2+ functions, these switches comprise the workgroup access-layer stack for seamless integration with L3 core switches to form part of a multi-level network structured with high-speed backbone and centralized servers.

Unparalleled Flexibility. Any switch in the DGS-3400 series can operate as a stand-alone device or part of a scalable stack. Embedded with Single IP Management capability, a stand-alone switch can form part of a virtual stack, where intra-stack traffic flows through the usual network wires, doing away with the costly stacking cables. Without stacking cables, cable distance barriers and physical stacking limitations, a virtual stack can comprise units that are located anywhere on the network that minimizes the impact of any single point of failure.

Redundant Ring Stacking. Alternatively, optional 10-Gigabit modules can be installed in the open slots to create a physical stack. Up to 12 units or 576 Gigabit ports can be configured for a stack.¹ Users can install one or two single-port modules, depending on whether the linear or fault-tolerant Ring stacking is implemented. With each of these ports providing 20Gbps full duplex transmission on the cost-effective coaxial cable, the DGS-3400 series provides not only high-bandwidth stacking but also cost control capability that allows users to add ports strictly on a per need basis. Modules with single 10-Gigabit XFP can also be installed in any of the open slots for uplink to servers or a fiber backbone.

More Intelligent Than Simple Layer 2 Switches. The DGS-3400 series provides a complete set of security features, which includes L2/L3/L4 multi-layer Access Control Lists and 802.1x user authentication via TACACS+ and RADIUS servers. In addition, it offers suppression capabilities and Layer 3 IP v.4/v.6 Static Routing to increase network performance and security. Built-in D-Link ZoneDefense technology allows business to integrate the switch stack with D-Link NetDefend firewalls to implement a full coverage, proactive security architecture.

Security, Performance & Availability. The DGS-3400 series provides extensive VLAN support including GARP/GVRP and 802.1Q VLAN to enhance security and performance. To support converged applications including VoIP, ERP, Intranet and video conference, a robust set of L2/L3/L4 QoS/CoS features ensures that critical network services are served with proper priority. For prevent malicious flooding traffic caused by worm/virus infections, the DGS-3400 series provides D-Link Safeguard Engine to increase the switch's reliability, serviceability and availability. Bandwidth Control can be flexibly set for each port using pre-defined thresholds to assure a committed level of service for end users. For advanced applications, per-flow bandwidth control allows easy fine-tuning of service types based on specific IP addresses or protocols.

XSTACK



DGS-3400 Series

Product Specifications

DGS-3426

DGS-3426P

DGS-3427

DGS-3450



Interface	10/100/1000BASE-T Ports	24	24	24	48
	Auto-Negotiation of Network Speed	✓	✓	✓	✓
	Auto-MDI/MDIX	✓	✓	✓	✓
	802.3x Flow Control	✓	✓	✓	✓
	SFP	4	4	4	4
	Open Slot for 10Gigabit Uplink Modules	2	2	3	2
	RS-232 Console Port	1	1	1	1
Physical Stacking	Installable Module for Stacking	Single-Port DEM-410CX Module or Single-Slot DEM-410X Module			
	Max Number of Stacking Ports Installable	2 CX4 Ports or 2 XFP Slots			
	Stacking Speed (Per Port)	20Gbps (Full-Duplex)			
	No. of Units Per Stack (Ring Topology)	12	12	12	12
Optional 10-Gigabit Uplink	Single XFP Slot Module (DEM-410X)	✓	✓	✓	✓
	Single CX4 Port Module (DEM-410CX)	✓	✓	✓	✓
	10GBASE-SR (300 m Multi-Mode Fiber) Support	✓	✓	✓	✓
	10GBASE-LR (10 km Single-Mode Fiber) Support	✓	✓	✓	✓
	10GBASE-ER (40 km Single-Mode Fiber) Support	✓	✓	✓	✓
	Max. Number of 10-Gigabit Uplinks Installable	2	2	3	2
Performance	Switch Fabric	88Gbps	88Gbps	108Gbps	136Gbps
	Packet Forwarding Rate	65.47Mpps	65.47Mpps	80.36Mpps	101.19Mpps
	Packet Buffer	750KB	750KB	750KB	750KB
	MAC Address Table	8K Entries	8K Entries	8K Entries	8K Entries
	IP v.4/v.6 Static Routing Table	128 Entries	128 Entries	128 Entries	128 Entries
	IP v.4 Host Table	2K Entries	2K Entries	2K Entries	2K Entries
	IP v.6 Host Table	1K Entries	1K Entries	1K Entries	1K Entries
	Jumbo Frame Size	9.216 Bytes	9.216 Bytes	9.216 Bytes	9.216 Bytes
Power	Power Supply	100 to 120VAC, 200 to 240VAC, 50/60Hz, Internal Power Supply			
	Power Consumption (Max.)	70.8 Watts	433.0 Watts	71.6 Watts	131.3 Watts
	Optional Redundant Power Supply	DPS-500	DPS-600	DPS-500	DPS-500
Physical/Environmental	BTU/Hr.	241.58	1477.48	244.65	448.02
	Ventilation	2 40 x 40 mm DC Fans	2 40 x 40 mm DC Fans	2 40 x 40 mm DC Fans	2 40 x 40 mm DC Fans
	Dimensions	441 x 389 x 44 mm	441 x 389 x 44 mm	441 x 389 x 44 mm	441 x 389 x 44 mm
	Size	19-Inch Rack-Mount Width, 1U Height			
	Weight (Without Optional Module)	5.42 kg	5.82 kg	5.51 kg	5.74 kg
	Operating Temperature	0° to 40°C	0° to 40°C	0° to 40°C	0° to 40°C
	Storage Temperature	-40° to 70°C	-40° to 70°C	-40° to 70°C	-40° to 70°C
	Operating Humidity	10% to 90% RH	10% to 90% RH	10% to 90% RH	10% to 90% RH
	Storage Humidity	5% to 90% RH	5% to 90% RH	5% to 90% RH	5% to 90% RH
	EMI	FCC Class A, CE, C-Tick	FCC Class A, CE, C-Tick	FCC Class A, CE, C-Tick	FCC Class A, CE, C-Tick
	Safety	CSA International, CB	CSA International, CB	CSA International, CB	CSA International, CB
	MTBF	93,957 hours	98,704 hours	93,885 hours	78,517 hours
Acoustic	<52.4dB	<52.4dB	<52.3dB	<48.7dB	

Software Functions

L2 Features

- IGMP snooping supports:
 - IGMP v.1/v.2/v.3
 - 1K IGMP groups
 - IGMP Fast Leave
 - Host-based IGMP Fast Leave *
- MLD snooping supporting 511 MLD snooping groups
- Spanning Tree: 802.1D STP, 802.1W RSTP, 802.1S MSTP
- Loop back detection
- 32 802.3ad Link Aggregation groups
- Back Pressure Flow Control
- Port mirroring: one-to-one, multiple-to-one, ACL modes *
- Trunking across stack
- Head-of-line blocking prevention

VLAN

- 802.1Q
- Double VLAN
- 4K VLAN groups
- GVRP
- Guest VLAN
- 802.1v
- MAC-based VLAN *

L3 Features

- 128 IP v.4/v.6 Static Routing

QoS

- Per flow bandwidth control
- 802.1p support
- 8 queues per port
- Queue handling methods: WRR, Strict
- CoS based on:
 - Switch port
 - MAC address
 - 802.1p priority
 - VLAN
 - Protocol type
 - TOS
 - DSCP
 - IP v.4/v.6 address
 - IP v.6 traffic class
 - IP v.6 flow label
 - TCP/UDP port
 - User defined packet content *

ACL (Access Control List)

- Maximum 768 rules based on:
 - Switch port
 - MAC address
 - 802.1p priority
 - VLAN
 - Protocol type
 - TOS
 - DSCP
 - IP address
 - IP v.4/v.6 address
 - IP v.6 traffic class
 - IP v.6 flow label
 - TCP/UDP port
 - User defined packet content *
- Time-based ACL
- CPU interface filtering
- ACL Statistic *

Security

- RADIUS/TACACS/TACACS+
- SSH v.2
- SSL v.3
- Port security
- 802.1x port-based/MAC-based access control
- Web-based access control *
- MAC-based access control *
- Broadcast storm control
- Traffic segmentation
- IP-MAC-Port binding (500 entries per device)
- D-Link Safeguard Engine
- Support Microsoft NAP

Management

- D-Link Single IP Management v.1.6
- Web-based GUI
- CLI
- Web GUI traffic monitoring
- Web MAC address browsing
- Telnet server
- Telnet client *
- TFTP client
- SNMP v.1, v.2c, v.3
- SNMP trap on MAC notification
- RMON v.1
- BootP/DHCP client
- DHCP auto-configuration
- DHCP relay option 82
- System log
- Trap/alarm/log severity control
- Flash file system
- Dual Images
- Dual Configurations
- CPU Monitoring
- LLDP *

MIBs

- MIB-II (RFC 1213)
- Bridge MIB (RFC 1493)
- SNMP v.2 MIB (RFC 1907)
- RMON MIB (RFC 1757, 2819)
- RMON v.2 MIB (RFC 2021)
- Ethernet-like MIB (RFC 1643, 2358, 2665)
- 802.1p MIB (RFC 2674)
- IF MIB (RFC 2233, 2863)
- RADIUS Authentication Client MIB (RFC 2618)
- RADIUS Accounting Client MIB (RFC 2620)
- Ping/Traceroute MIB (RFC 2925) *
- D-Link enterprise MIB

* Functions available in future firmware upgrade.

Optional Products

Optional Management Software

- DS-510S** D-View 5.1 SNMP Network Management Program (standard version)
DS-510P D-View 5.1 SNMP Network Management Program (professional version)

Optional 10-Gigabit Uplink Modules

- DEM-410X** 1-slot 10-Gigabit XFP uplink module
DEM-410CX 1-port 10-Gigabit CX4 uplink module

Optional 10-Gigabit XFP Transceivers

- DEM-421XT** XFP transceiver, 10GBASE-SR standard, multi-mode fiber, max. distance 300 m, 3.3/5V
DEM-422XT XFP transceiver, 10GBASE-LR standard, single-mode fiber, max. distance 10 km, 3.3/5V
DEM-423XT XFP transceiver, 10GBASE-ER standard, single-mode fiber, max. distance 40 km, 3.3/5V

Optional SFP Transceivers

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

distance 40 km, 3.3V operating voltage, Tx wavelength 1550 nm, Rx wavelength 1310 nm
DEM-331R WDM SFP transceiver 1000BASE-LX standard, single-mode fiber, max. distance 40 km, 3.3V operating voltage, Tx wavelength 1310 nm, Rx wavelength 1550 nm

Optional Redundant Power Supply

- DPS-500** 140-watt redundant power supply
DPS-600 500-watt redundant power supply
DPS-800 2-slot redundant power supply chassis
DPS-900 8-slot redundant power supply chassis



D-Link Worldwide Offices

U.S.A	TEL: 1-800-326-1688	FAX: 1-866-743-4905	Bulgaria	TEL: 359 2 958 22 42	FAX: 359 2 958 65 57
Canada	TEL: 1-905-8295033	FAX: 1-905-8295223	Romania	TEL: 40(0)21 320 23 05	FAX: 40(0)21 320 23 07
Europe (U. K.)	TEL: 44-(0)20-8955-9000	FAX: 44-(0)20-8955-9001	Singapore	TEL: 65-6774-6233	FAX: 65-6774-63225
Germany	TEL: 49-(0)6196-77990	FAX: 49-(0)6196-7799300	Australia	TEL: 61-2-8899-1800	FAX: 61-2-8899-1868
France	TEL: 33 (0)1 30 23 86 88	FAX: 33 (0)1 30 23 86 89	India	TEL: 91-22-2652 6696	FAX: 91-22-2652 8914
Netherlands	TEL: 31-(0)10-282-1445	FAX: 31-(0)10-282-1331	Middle East (Dubai)	TEL: 971-4-391-6480	FAX: 971-4-390-8881
Belgium & Luxembourg	TEL: 32(0)2 517 7111	FAX: 32(0)2 517 6500	Egypt	TEL: 202-291-9035	FAX: 202-291-9051
Switzerland	TEL: 41 (0)1 832 11 00	FAX: 41 (0)1 832 11 01	Turkey	TEL: 90-212-289-5659	FAX: 90-212-289-7606
Austria	TEL: 43 (0)1 240 27 270	FAX: 43 (0)1 240 27 271	Iran	TEL: 90-212-289-5659	FAX: 90-212-289-7606
Sweden	TEL: 46-(0)8 564 619 00	FAX: 46-(0)8 564 619 01	Pakistan	TEL: 92-21-454-8158	FAX: 92-21-453-5103
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 30 90 85	Latin America	TEL: 56-2-5838-950	FAX: 56-2-5838953
Finland	TEL: 358-10 309 8840	FAX: 358-10 309 8841	Brazil	TEL: 55-11-2185-9300	FAX: 55-11-2185-9322
Italy	TEL: 39-02-2900-0676	FAX: 39-02-2900-1723	South Africa	TEL: 27-12-665-2165	FAX: 27-12-665-2186
Spain	TEL: 34 93 409 0770	FAX: 34 93 491 0795	Russia	TEL: 7-495-744-0099	FAX: 7-495-744-0099
Portugal	TEL: 351 21 8688493	FAX: 351 21 8622492	Japan	TEL: 81-3-5781-0963	FAX: 81-3-5781-0965
Greece	TEL: 30 210 9914 512	FAX: 30 210 9916902	Korea	TEL: 82-2-890-5491	FAX: 82-2-890-549
Czech Republic	TEL: 420 224 247 500	FAX: 420 224 234 967	China	TEL: 86-10-58635800	FAX: 86-10-58635799
Hungary	TEL: 36 (0)1 461 30 00	FAX: 36 (0)1 461 30 04	Taiwan	TEL: 886-2-6600-0123	FAX: 886-2-6600-3939
Poland	TEL: 48 (0)22 583 92 75	FAX: 48 (0)22 583 92 76	Headquarters	TEL: 886-2-6600-0123	FAX: 886-2-6600-9898