Flexible Choices
- 24 or 48 10/100/1000BASE-T ports
- 4 combo SFP ports for Gigabit Fiber Connection
- 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 of up to 12 units, 576 Gigabit ports[1]

Enhanced L2+ Features
- IP v4/v6 Static Routing
- Routing Information Protocol (RIP)*

Security
- L2/L3/L4 Multi-Layer Access Control List
- D-Link Safeguard Engine
- 802.1X Authentication, external RADIUS/TACACS+
- SSH/SSL
- IP-MAC-Port Binding
- ZoneDefense Technology
- Supports Microsoft® NAP
- DHCP Server Screening

Quality of Service
- 802.1p Priority Queues/Multi-Layer CoS
- 8 Hardware Queues per port

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

Configuration/Management
- Web-Based GUI
- Command Line Interface (CLI)
- SNMP v1/v2c/v3
- D-Link Single IP Management (SIM) v.1.6
- Telnet
- Multiple Images/Configuration
- DHCP Server
- sflow
- LLDP

[1]Calculation based on 12 stacked units of DGS-3450

Advanced Layer 2+ Gigabit Switches

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 standalone 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.

Intelligent 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 IPv4/v6 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.

D-Link®

DGS-3400 Series

Technical Specifications		DGS-3426	DGS-3426P	DGS-3427	DGS-3450
Physical & Hardware	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 10/100/1000BASE-T 4 Combo 10/100/1000BASE-T/SFP	24 10/100/1000BASE-T 4 Combo 10/100/1000BASE-T/SFP	24 10/100/1000BASE-T 4 Combo 10/100/1000BASE-T/SFP	48 10/100/1000BASE-T 4 Combo 10/100/1000BASE-T/SFP
	Console Port	RS-232 Console Port			
	Open Slots for 10Gigabit Uplink Modules	2	2	3	2
Physical Stacking	Installable Module for Stacking	Single-Port DEM-410CX Module or Single-Slot DEM-410X Module			
	Max. Number of Stacking Ports	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 Uplinks	Single XFP Slot Module (DEM-410X)	√	√	√	√
	Single CX4 Port Module (DEM-410CX)	√	√	√	√
	10GBASE-SR (300 m Multi-Mode Fiber)	√	√	√	√
	10GBASE-LR (10 km Single-Mode Fiber)	√	√	√	√
	10GBASE-ER (40 km Single-Mode Fiber)	√	√	√	√
	Max. Number of 10-Gigabit Uplinks Installable	2	2	3	2
Performance	Switching Fabric	88Gbps	88Gbps	108Gbps	136Gbps
	Packet Forwarding Rate	65.47Mpps	65.47Mpps	80.36Mpps	101.19Mpps
	MAC Address Table Size	8K	8K	8K	8K
	Packet Buffer	750KB	750KB	750KB	750KB
	IP v.4/v.6 Static Routing Table Size	128	128	128	128
	IP v.4 Host Table Size	2K	2K	2K	2K
	IP v.6 Host Table Size	1K	1K	1K	1K
	Jumbo Frame Size	9.216Bytes	9.216Bytes	9.216Bytes	9.216Bytes
MTBF		93,957hours	98,704hours	93,885hours	78,517hours
Acoustic		< 52.4dB	< 52.4dB	< 52.3dB	< 48.7dB
Heat Dissipation		241.58BTU/hr	1477.48BTU/hr	244.65BTU/hr	448.02BTU/hr
Power Input		100 to 240VAC, 50 to 60Hz, Internal Universal Power Supply			
Power Consumption		70.8W	433.0W	71.6W	131.3W
Optional Redundant Power Supply		DPS-500	DPS-600	DPS-500	DPS-500
Dimensions		441 x 389 x 44 (W x D x H) mm			
Weight (without optional module)		5.42kg	5.82kg	5.51kg	5.74kg

SWITCH

Ventilation	2 DC Fans (40 x 40mm)	2 DC Fans (40 x 40mm)	2 DC Fans (40 x 40mm)	2 DC Fans (40 x 40mm)
Operating Temperature	0˚ to 40˚C (32˚ to 104˚ F)			
Storage Temperature	-40˚ to 70˚C (-40˚ to 158˚ F)			
Operating Humidity	10% to 90% RH			
Storage Humidity	5% to 90% RH			
EMI	FCC Class A, CE, C-Tick			
Safety	CSA International, CB			

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 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 300m, 3.3/5V
DEM-422XT — XFP transceiver, 10GBASE-LR standard, single-mode fiber, max. distance 10km, 3.3/5V
DEM-423XT — XFP transceiver, 10GBASE-ER standard, single-mode fiber, max. distance 40km, 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-LHX standard, single-mode fiber, max. distance 50km, 3.3V operating voltage
DEM-315GT — SFP transceiver, 1000BASE-ZX standard, single-mode fiber, max. distance 80km, 3.3V operating voltage
DEM-330T — WDM SFP transceiver, 1000BASE-BX standard, single-mode fiber, max. distance 10km, 3.3V operating voltage, Tx wavelength 1550nm, Rx wavelength 1310nm
DEM-330R — WDM SFP transceiver, 1000BASE-BX standard, single-mode fiber, max. distance 10km, 3.3V operating voltage, Tx wavelength 1310nm, Rx wavelength 1550nm
DEM-331T — WDM SFP transceiver, 1000BASE-BX standard, single-mode fiber, max. distance 40km, 3.3V operating voltage,Tx wavelength 1550nm, Rx wavelength 1310 nm
DEM-331R — WDM SFP transceiver 1000BASE-BX standard, single-mode fiber, max. distance 40km, 3.3V operating voltage, Tx wavelength 1310nm, Rx wavelength1550nm

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

Software Features

Stackability
- Physical Stacking
  - Up to 40G Stacking Bandwidth
  - Up to 12 units per Stack
- Virtual Stacking
  - D-Link Single IP Management (SIM)
  - Up to 32 units per Virtual Stack

L2 Features
- MAC Address Table: 8K
- Flow Control
  - 802.3x Flow Control
  - HOL Blocking Prevention
- Jumbo Frame up to 9,216Bytes
- IGMP Snooping
  - IGMP v1/v2/v3 Snooping
  - Support 1K groups
  - Host-based IGMP Snooping Fast Leave
- MLD Snooping
  - MLD v1/v2 Snooping
  - Support 511 groups
  - Host-based MLD Snooping Fast Leave

- Multicast VLAN Replication
- Limited IP Multicast (IGMP Filtering)
- Spanning Tree Protocol
  - 802.1D- 2004 Edition STP
  - 802.1w RSTP
  - 802.1s MSTP
  - BPDU Filtering
  - STP Root Restriction
- Loopback Detection
- 802.3ad Link Aggregation
  - Max. 32 groups per device/ 8 ports per group
  - Supports cross stack/module trunk
- Port Mirroring
  - One-to-One
  - Many-to-One
  - Flow-based Mirroring
  - RSPAN
- L2 Protocol Tunneling

VLAN
- 802.1Q Tagged VLAN
- VLAN Group

- Max. 4094 VLAN
- GVRP
- 802.1v Protocol VLAN
- Double VLAN (Q-in-Q):
  - Port-based Q-in-Q
  - Selective Q-in-Q
- VLAN Translation
- ISM VLAN
- MAC-based VLAN
- Voice VLAN*
- Private VLAN*

L3 Routing
- 64 IP Interfaces
- 2K hardware routing entries shared by IPv4/v6:
  - Max. 2K IPv4 routes
  - Max. 1K IPv6 routes
- 128 static routes shared by IPv4/v6
- RIP v1/v2*
- RIPng*
- IPv6 Tunneling*
  - Static
  - ISATAP

- GRE
- 6 to 4
- Gratuitous ARP

QoS (Quality of Service)
- 802.1p Quality of Service
- 8 queues per port
- Queue Handling
  - Strict
  - Weighted Round Robin (WRR)
  - Strict + 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
- QoS Flow Actions
  - Remark 802.1p Priority Tag
  - Remark TOS/DSCP Tag
  - Bandwidth Control
  - Flow Statistics
  - Committed Information Rate (CIR)
- Three Color Marker
  - trTCM
  - srTCM
- Bandwidth Control
  - Port-based (Ingress/Egress, min. granularity 1Kb/s)
  - Flow-based (Ingress, min. granularity 64Kb/s)
- Time-based QoS

Access Control List (ACL)
- Up to 768 Access Rules
- ACL based on
  - 802.1p Priority
  - VLAN ID
  - MAC Address
  - Ether Type
  - IPv4/IPv6 Address
  - DSCP
  - Protocol Type
  - TCP/UDP Port Number
  - IPv6 Traffic Class
  - IPv6 Flow Label
  - User-defined Packet Content
- Time-based ACL
- ACL Statistics

*Functions will be available in future firmware upgrade

Security
- SSH v1/v2
- SSL v1/v2/v3
- Port Security up to 16 MAC address per port
- Broadcast/Multicast/Unicast Storm Control
- Traffic Segmentation
- IP-MAC-Port Binding
  - ARP Packet Inspection
  - IP Packet Inspection
  - DHCP Snooping
  - DHCPv6 and NDP Snooping*
  - Supports up to 500 Address Binding Entries per Device
- D-Link Safeguard Engine
- DHCP Server Screening
- CPU Interface Filtering
- ARP Spoofing Prevention*
- BPDU Attack Protection*

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
- Compound Authentication
- Guest VLAN
- Supports Microsoft® NAP
  - 802.1X NAP
  - DHCP NAP
- RADIUS Accounting
- RADIUS and TACACS+ Authentication for Switch Access
- 3-Level User Account

Management
- Web-based GUI (Supports IPv4/IPv6)
- Command Line Interface (CLI)
- Telnet (Supports IPv4/IPv6)
- TFTP Client (Supports IPv4/IPv6)
- SNMP v1/v2c/v3
- SNMP Trap
- System Log
- RMON v1
  - Supports 1,2,3,9 groups
- RMON v2
  - Supports ProbeConfig group
- sFlow
- LLDP

- LLDP-MED*
- BOOTP/DHCP Client
- DHCP Auto-Configuration
- DHCP Relay
- DHCP Relay Option 60, 61, 82
- DHCP Server
- Flash File System
- Multiple Images/Configuration
- CPU Monitoring
- SNTP
- Password Encryption
- Password Recovery*
- ICMPv6
- IPv6 Neighbor Discovery (ND)
- DHCPv6 Client*
- DHCPv6 Relay*

OAM
- Cable Diagnostics

MIB
- RFC1212 Concise MIB
- RFC1213 MIB-II
- RFC1516 MIB Traps
- RFC1493, 4188 Bridge MIB
- RFC1907 SNMPv2 MIB
- RFC1757, 2819 RMON MIB
- RFC2021 RMONv2 MIB
- RFC2096 IP Forwarding Table MIB
- RFC1398, 1643,2358,2665 Ether-like MIB
- RFC2674, 4363 802.1p MIB
- RFC2233, 2863 Interfaces Group MIB
- RFC2618 RADIUS Authentication Client MIB
- RFC2620 RADIUS Accounting Client MIB
- RFC2737 Entity MIB
- RFC2925 Ping & Traceroute MIB
- D-Link Private MIB

Standard Compliance
- RFC768 UDP
- RFC791 IP
- RFC792 ICMPv4
- RFC793 TCP
- RFC826 ARP
- RFC854 Telnet
- RFC2463,4443 ICMPv6
- RFC1338, 1519 CIDR
- RFC2068, 2616 HTTP
- RFC2460 IPv6
- RFC1157,1901,1908, 2273, 2570~2575 SNMPv1/v2c/v3
- RFC2598 DiffServ Expedited Forwarding
- RFC4861 IPv6 Neighbor Discovery (ND)
- RFC4862 IPv6 Stateless Address Autoconfiguration
- RFC1981 IPv6 Path MTU Discovery*