DGS-3627

KEY FEATURES

- 24 10/100/1000 BASE-T ports with 4 Combo SFP slots + 3 open 10G slots
- 108 Gbps Switching Capacity
- Virtual Stack or Physical High-Speed Stacking*
- Stackable Through Low-Cost 10-Gigabit Coaxial Ports
- Optional External Redundant Power Supply
- 802.1X Guest VLAN, Double VLAN*,Web-Based Access Control
- RIPng (IPv6) Support*
- Network Management using Web GUI, CLI, Console, SNMP, D-Link SIM, Telnet, RMON, Port mirroring, SSH/SSL/TACACS+/ RADIUS, IGMP Snooping

Next generation Layer 3 Gigabit switches for SMB and enterprises

The xStack DGS-3600 series of next generation Layer 3 Gigabit switches delivers performance, flexibility, security, multi-layer QoS and access, and redundant power option for SMB and enterprises. With high Gigabit port densities, SFP support, 10-Gigabit uplink options and advanced software functions, these switches can act as departmental access layer devices or core switches to form a multi-level network structured with high-speed backbone and centralized servers. Telecom service providers can also take advantage of the high SFP density switches to form the core of their Fiber to the (FTTB) network that extends to the subscribers' sites.

Features and benefits:

Unparalleled Flexibility:

Easy to deploy and simple to managed, the DGS-3600 series can bestacked with any switches supporting D-Link's Single IP Management to form a multi-level network structured with backbone and centralized high-speed servers. This virtual stack can comprise units located anywhere on the same network domain, and uses the optional 10-Gigabit uplinks to move intra-stack traffic at 20Gbps full duplex. It can eliminate single points of failures, cable distance barriers, physical stacking method limitations and the need for stacking cabling.

Redundant Ring[1] Stacking:

Alternatively, users can install one or two 10-Gigabit uplinks, depending on whether the linear or fault-tolerant ring stacking is implemented, to create a physical stack. Up to 12 units or 576 Gigabit ports can be configured for a stack[2]. Using the low-cost coaxial cable as the medium to stack switches together, the DGS-3600 series provides not only high-bandwidth stacking but also the cost control capability that allowsusers to add 10-Gigabit uplinks strictly as needed. Modules with single 10-Gigabit XFP can also be installed in any of the open slots for uplink to servers or a fiber backbone.

Security, Performance & Availability:

Security, Performance & Availability: The DGS-3600 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 v4/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.

The DGS-3600 series offers 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. To prevent malicious flooding traffic caused by worm/virus infections, the DGS-3600 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.

1 Redundant ring stacking available in future
2 Calculation based on a stack of 12 DGS-3650 switches

TECHNICAL SPECIFICATIONS

DGS-3627

Interface
- 10/100/1000BASE-T Ports: 24
- Combo SFP slots: 4
- Open Slot for 10-Gigabit Uplink Modules: 3
- RS-232 Console Port: 1

Physical Stacking
- Installable Module for Stacking: Single-Port DEM-410CX
- Max Number of Stacking Ports Installable: 2 CX4 Ports
- Stacking Speed (Per Port): 20Gbps (Full-Duplex)
- No. of Units Per Stack: 12*

Optional 10-Gigabit Uplink
- Single XFP Slot Module (DEM-410X): Yes
- Single CX4 Port Module (DEM-410CX): Yes
- 10GBASE-SR (300 m Multi-Mode Fiber) Support: Yes
- 10GBASE-LR (10 km Single-Mode Fiber) Support: Yes
- 10GBASE-ER (40 km Single-Mode Fiber) Support: Yes
- Max. Number of 10-Gigabit Uplinks Installable: 3

Performance
- Switch Fabric: 108Gbps
- Packet Forwarding Rate: 80.36Mpps
- Packet Buffer: 2MB
- MAC Address Table: 16K Entries
- IP v4/v6 Routing Table: 12K Entries
- IP v6 Routing Table: 6K Entries
- IP v4 Host Table: 8K Entries
- IP v6 Host Table: 4K Entries
- Jumbo Frame Size: 9,216 Bytes

Power
- Power Supply: 100 to 120VAC, 200 to 240VAC, 50/60Hz, Internal Power Supply
- Power Consumption (Max.): 72.3Watts
- Optional Redundant Power Supply: DPS-500

Physical/Environmental
- Heat Dissipation: 246.70 BTU/Hr
- Ventilation DC Fans: 4 40 x 40 x 20 mm, 1 50 x 50 x 10 mm
- Dimensions: 441 x 389 x 44 mm
- Size: 19-Inch Rack-Mount Width, 1U Height
- Weight (Without Optional Module): 5.51kg
- Operating Temperature: 0° to 40° C
- Storage Temperature: -10° to 70° C
- Operating Humidity: 10% to 90% RH
- Storage Humidity: 5% to 90% RH
- EMI: FCC Class A, CE, C-Tick,VCCI
- Safety: cUL, CB

L2 Features
- IGMP snooping v1, v2, v3 1K IGMP snooping groups 64 static multicast address
- MLD snooping 1K MLD snooping groups 64 static multicast addresses
- Spanning Tree
  - 802.1D STP
  - 802.1w RSTP
  - 802.1s MSTP
  - STP Loopback detection
  - BPDU filtering per port and per device
- 802.3ad Link Aggregation
  - Up to 32 groups per device
  - Up to 8 Gigabit ports or 2 10-Gigabit por ts per group
- Port mirroring
  - One-to-One mode
  - Many to One mode
  - ACL mode*
- Trunking across stack*

VLAN
- 802.1Q
- 802.1v
- Total 4K VLAN groups
- Max 4K static VLAN groups
- Max 255 dynamic VLAN groups
- Configurable VLAN ID from 1 to 4094
- GVRP
- Double VLAN*
- Guest VLAN

L3 Features
- L3 routing
  - Up to 12K entries (all route entries combined)
  - Up to 256 IPv4 static route entries
  - Up to 128 IPv6 static route entries
  - Up to 12K IPv4 dynamic route entries
  - Up to 6K IPv6 dynamic route entries
- L3 forwarding
  - Up to 8K entries (all L3 hardware forwarding entries combined)
  - Up to 8K Ipv4 forwarding entries
  - Up to 4K Ipv6 forwarding entries
- Floating Static Route
  - IPv4 Floating Static Route
  - IPv6 Floating Static Route
- Policy Based Route
- RIP v1, v2
- RIPng (Ipv6)*
- OSPF v2
  - OSPF Passive Interface
  - OSPF NSSA (Not So Stubby Area)
  - OSPF Equal Cost Route*
- Up to 64 IP Interfaces
- Multiple IP interfaces per VLAN (up to 5)
- Multi Path Routing supporting Equal Cost (EC) and Weighted Cost (WC)*
- VRRP
- IP v6 Ready Phase 1*
- Multicast
  - Up to 1K multicast groups (static and dynamic multicast groups combined)
  - Up to 64 static multicast groups
  - Up to 1K dynamic multicast groups
- IGMP v1, v2, v3
- DVMRP v3
- PIM DM for Ipv4
- PIM SM for IPv4 *
- Multicast duplication (up to 32 VLAN per port)
- Per port limit IP multicast address range for control packet

QoS (Quality of Service)
- Per port bandwidth control (granularity of 64Kbits per second)
- Per flow bandwidth control (granularity of 64Kbits per second)
- 802.1p Priority Queues (8 queues)
  - Queue handling mode support: WRR and Strict modes
- CoS based on:
  - Switch port
  - VLAN ID
  - 802.1p Priority Queues
  - MAC address
  - IPv4/v6 address
  - DSCP
  - Protocol type
  - IPv6 traffic class
  - IPv6 flow label
  - TCP/UDP port
  - User-defined packet content

ACL (Access Control List)
- Up to 8 profiles
- Up to 1792 global rules, each rule can set its own port range
- ACL based on:
  - Switch port
  - VLAN ID
  - 802.1p Priority Queues
  - MAC address
  - IPv4/v6 address
  - DSCP
  - Protocol type
  - IPv6 traffic class
  - IPv6 flow label
  - TCP/UDP port
  - User-defined packet content
  - Time (time-based ACL)
- CPU interface filtering

Security
- RADIUS authentication for management access (RFC 2138, 2139)
- TACACS+ authentication for management access (RFC 1492)
- SSH v2
- SSL v3
- Port security (up to 16 MAC addresses per port)
- 802.1x port-based/MAC-based access control
- Web-based Access Control*
- MAC-based Access Control*
- Broadcast/Multicast Storm Control (minimum granularity of 1 packet per second)
- Traffic segmentation
- IP-MAC binding (up to 500 entries per device)
- IP-MAC-Port binding (up to 500 entries per device) supporting ARP and ACL modes
- D-Link Safeguard Engine

* Function available in future firmware upgrade

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Building Networks for People

TECHNICAL SPECIFICATIONS

DGS-3627

Management
- Single IP Management v1.6
- Web-based GUI
- CLI
- Web GUI traffic monitoring
- Web MAC address browsing
- Telnet server
- Telnet client*
- TFTP client
- SNMP v1, v2c, v3
- SNMP trap on MAC notification
- RMON v1, v2
- Sflow*
- BootP/DHCP client
- DHCP auto-configuration
- DHCP relay option 82
- System log
- Trap/Alarm/Log Severity Control
- Dual Image
- Dual Configuration
- Flash file system
- Port description
- Editable login banner
- Editable system prompt
- CPU monitoring via web, CLI, SNMP
- Virtual Interface*

MIBs
- MIB-II (RFC 1213)
- Bridge MIB (RFC 1493)
- SNMP v2 MIB (RFC 1907)
- RMON MIB (RFC 1757, 2819)
- RMON v2 MIB (RFC 2021)
- Ether-like MIB (RFC 1643, 2358, 2665)
- 802.3 MAU MIB (RFC 2668)
- 802.1p MIB (RFC 2674)
- IF MIB (RFC2233, 2863)*
- RADIUS Authentication Client MIB (RFC 2618)
- IGMP v3 MIB
- RIP v2 MIB (RFC 1724)
- OSPF v2 MIB (RFC 1850)
- IP Forwarding Table MIB (CIDR) (RFC 2096)
- VRRP MIB (RFC 2787)
- IPv4 Multicast Routing MIB (RFC 2932)
- PIM MIB for IPv4 (RFC 2934)
- RADIUS Accounting Client MIB (RFC 2620)
- Ping MIB*
- Trace out MIB*
- L2 Specific MIB
- L3 Specific MIB
- Private MIB

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 10Gbps Uplink Modules
- DEM-410X 1-slot 10-Gigabit XFP uplink module
- DEM-410CX 1-port 10-Gigabit CX4 uplink module

Optional 10Gbps 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 1Gbps 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 wavelength1550 nm
- DEM-211 SFP transceiver, 100BASE-FX standard, up to 2 km multi-mode fiber cable distance, 3.3V operating voltage (for DGS-3612G switch only)
- DEM-210 SFP transceiver, 100BASE-F standard, up to 15 km single-mode fiber cable distance, 3.3V operating voltage (for DGS-3612G switch only)

Optional Redundant Power Supply
- DPS-500 140-watt redundant power supply
- DPS-800 2-slot redundant power supply

Ordering Information:

DGS-3627

24-Port 10/100/1000Base-T L3 Stackable Management Switch with 4 Combo SFP and 3 open slots for optional 10GE modules

* Function available in future firmware upgrade

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