

## Product Highlights

### Multiple Firmware Options

Support for three different type of software lets administrators customize the switches to their specific requirements and applications.

### High Availability and Expansion

Virtual Stacking provides agile expansion or redundancy. Reliability through fault tolerant topologies ensures rock-solid connectivity.

### Comprehensive Security Solution

Support for Access Control Lists (ACL) and multiple user authentication methods as well as IP-MAC-Port Binding ensures a secure network environment.



## DGS-3120 Series

# xStack L3 Managed Gigabit Switches

## Features

### Flexible choices

- 24 or 48 10/100/1000 Mbps Auto MDI/MDIX ports and 16 SFP ports (model-specific)
- 4 or 8 combo Gigabit copper/SFP uplinks for connections in enterprise or metropolitan areas
- 802.3af and 802.3at Power Over Ethernet support
- Wirespeed and Non-blocking Architecture

### High Bandwidth Physical Stacking<sup>1</sup>

- 2 dedicated stacking ports per switch
- Up to 40 Gbps Full-Duplex Stacking Bandwidth
- Up to 6 units (288 Gigabit ports) per stack

### L2 Features

- 802.1D/802.1w/802.1s Spanning Tree
- Ethernet Ring Protection Switching (ERPS)<sup>2</sup>
- IGMP/MLD Snooping

### L3 Features<sup>3</sup>

- RIP
- OSPF
- IGMP/MLD
- PIM DM/SM/SSM/Spare-Dense Mode
- DVMRPv3

### OAM

- 802.3ah Link OAM
- 802.1ag, ITU-T Y.1731 Service OAM

The DGS-3120 Series xStack switches are enhanced L3 Gigabit switches designed to connect end-users in a secure campus or enterprise network. These switches support physical stacking<sup>1</sup>, multicast, and enhanced security, making them an ideal Gigabit access layer solution. The DGS-3120-24TC/48TC provides 20 or 44 10/100/1000 Mbps Full/Half-Duplex Mode, Auto-negotiation Gigabit Ethernet ports, and 4 combo 1000BASE-T/SFP Gigabit Ethernet ports. The DGS-3120-24PC/48PC provides 24 or 48 10/100/1000 Mbps Power over Ethernet (PoE) Gigabit Ethernet ports and 4 combo 1000BASE-T/SFP Gigabit Ethernet ports. The DGS-3120-24SC/24SC-DC provides 16 SFP Gigabit Full/Half-Duplex Mode, Auto-negotiation Ethernet ports and 8-combo 1000BASE-T/SFP Gigabit ports. Each 10/100/1000 Mbps port on the DGS-3120-24PC/48PC supports the 802.3af and 802.3at PoE standards. The default power budget for these models is 370 watts and can be expanded to 760 watts with the RPS. The switches are also equipped with an SD Card slot, allowing the user to boot images and upload configuration files directly from an SD Card as well as conveniently save syslog files onto the SD Card.

## Standard, Enhanced and Routed Images

The DGS-3120 Series has support for three different software images - the Standard Image (SI), Enhanced Image (EI), and Routed Image (RI). The Standard Image provides sophisticated features for campus or enterprise usage. It includes advanced Quality of Service (QoS), traffic shaping, L2 multicasting, robust security features, and IPv6 features which are suitable for next-generation IPv6 networks or triple play applications over Metro Ethernet. The Enhanced Image supports ERPS, Double VLAN (Q-in-Q), Ethernet OAM, Static Route, IMPB, and sFlow. The Routed Image supports DHCP Server, VRRP, IPv6 Tunneling, RIP, OSPF, IGMP, MLD, PIM, and DVMRPv3.

## Enhanced Network Reliability

The DGS-3120 Series targets enterprises, campuses, and customers who require a high level of network security and maximum uptime. All the models in the DGS-3120 Series except the DGS-3120-24SC-DC support an external redundant power supply so that continued operation can be assured. They also include other features, such as 802.1D Spanning Tree (STP), 802.1w Rapid Spanning Tree (RSTP), and 802.1s Multiple Spanning Tree (MSTP), Loopback Detection (LBD), and Broadcast Storm Control, that enhances network resilience. G.8032 Ethernet Ring Protection Switching (ERPS)<sup>2</sup> minimizes the recovery time to 50 ms. For load sharing and redundancy backup in a switch cascading/server attachment configuration, the DGS-3120 Series provides dynamic 802.3ad Link Aggregation Port Trunking.

## Comprehensive Security

The DGS-3120 Series provides users with the latest security features such as Multi-layer and Packet Content Access Control Lists (ACL), Storm Control, and IP-MAC-Port Binding (IMPB)<sup>2</sup> with DHCP Snooping. The IP-MAC-Port Binding feature allows administrators to bind a source IP address with an associated MAC and also define the port number to enhance user access control. With the DHCP Snooping feature, the switch automatically learns IP/MAC pairs by snooping DHCP packets and saving them to the IMPB white list. In addition, the D-Link Safeguard Engine identifies and prioritizes “CPU interested” packets to prevent malicious traffic from interrupting normal network flows, and to protect switch operation.

## Identity Driven Network Policies

The DGS-3120 Series supports authentication mechanisms such as 802.1X, Web-based Access Control (WAC), and MAC-based Access Control (MAC) for strict access control and easy deployment. After authentication, individual policies such as VLAN membership, QoS policies, and ACL rules can be assigned to each host. In addition, the switch also supports Microsoft® NAP (Network Access Protection). NAP is a policy enforcement technology that allows customers to protect network assets from compromised computers by enforcing compliance with network health policies.

## Traffic Management for Triple Play

The DGS-3120 Series implements a rich set of multilayer QoS/CoS features to ensure that critical network services such as VoIP, video conferencing, IPTV, and IP surveillance are given high priority. Traffic Shaping features guarantee bandwidth for these services when the network is busy. L2 Multicast support enables the DGS-3120 to handle growing IPTV applications. Host-based IGMP/MLD Snooping allows multiple multicast subscribers per physical interface and ISM VLAN to send multicast streams in a multicast VLAN to save bandwidth

and to provide better security to the backbone network. The ISM VLAN profiles allow users to bind/replace the pre-defined multicast registration information to subscriber ports quickly and easily.

## Proactive, Effective Network Management

To uphold enterprise customers' Service Level Agreements (SLA), service providers must reduce their Mean Time to Repair (MTTR) and increase service availability. Ethernet OAM features address these challenges and enable service providers to offer carrier-grade services. The DGS-3120 Series supports industry-standard OAM tools, including IEEE 802.3ah, IEEE802.1ag, and ITU-T Y.1731. Connectivity Fault Management (CFM) provides tools to monitor and troubleshoot end-to-end Ethernet networks, allowing service providers to check connectivity, isolate network issues, and identify customers affected by network issues.

## IPv6 Technology

The DGS-3120 Series is fully compliant with future IPv6 networks. It supports remote IPv6 manageability from Telnet, HTTP, or SNMP. To create secure IPv6 networks, the DGS-3120 Series uses IPv6 ACL, DHCPv6 Snooping, and Neighbor Discovery (ND) Snooping functions to protect the network from illegal IPv6 clients. The DGS-3120 Series has been certified with IPv6 Ready Logo Phase 2 from the IPv6 forum, a worldwide IPv6 advocacy consortium. The IPv6 Ready Logo Program ensures the conformance and interoperability of IPv6 products.

## 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-3120 Series implements the D-Link Green Technology, which includes a power saving mode, Smart Fan, reduced heat, and cable length detection. The power-saving feature automatically powers down ports that have no link or link partner. The Smart Fan feature enables the built-in fans to automatically turn on at a certain temperature, providing continuous, reliable, and ecofriendly operation of the switch. Energy Efficient Ethernet (EEE) standard is also supported, which helps to reduce the operating cost of the DGS-3120 Series.

## 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-3120 Series also supports standard-based management protocols such as SNMP, RMON, Telnet, Console, Web-based GUI, and SSH/SSL security authentication.

Technical Specifications			
Interfaces	DGS-3120-24TC	DGS-3120-48TC	DGS-3120-24PC
Ports	<ul style="list-style-type: none"> <li>• 20 10/100/1000BASE-T ports</li> <li>• 4 Combo 10/100/1000BASE-T/SFP ports</li> </ul>	<ul style="list-style-type: none"> <li>• 44 10/100/1000BASE-T ports</li> <li>• 4 Combo 10/100/1000BASE-T/SFP ports</li> </ul>	<ul style="list-style-type: none"> <li>• 20 10/100/1000BASE-T ports</li> <li>• 4 Combo 10/100/1000BASE-T/SFP ports</li> </ul>
Port Standards & Functions	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T, IEEE 802.3z 1000BASE-X Gigabit Ethernet, IEEE 802.3x Flow Control for Half/Full-Duplex Mode, Auto-negotiation, Auto or configurable MDI/MDIX		
Console Port	• RJ-45		
Stacking Port <sup>1</sup>	• 2		
SD Card Slots	• 1		
Performance			
Switching Capacity	• 88 Gbps	• 136 Gps	• 88 Gps
64-Byte Packet Forwarding Rate	• 65.48 Mbps	• 101.19 Mbps	• 65.48 Mbps
Packet Buffer Memory	• 2 MB		
Flash Memory	• 32 MB		
PoE			
PoE Standards	-	-	• 802.3af and 802.3at
PoE Power Budget	-	-	<ul style="list-style-type: none"> <li>• 370 watts</li> <li>• 760 watts (with DPS-700 RPS)</li> </ul>
Physical			
MTBF (Hours)	• 344511.586 hours	• 275755.660 hours	• 272292.426 hours
Acoustics	• Max: 44.2 dB; Min: 28.1 dB	• Max: 49.6 dB; Min: 37.7 dB	• Max: 52.5 dB; Min: 38.1 dB
Heat Dissipation	• 121.055 BTU/h	• 209.715 BTU/h	<ul style="list-style-type: none"> <li>• 1665.10 BTU/h (with 370 W PoE load)</li> <li>• 3227.9 BTU/h (with 760 W PoE load)</li> </ul>
Power Input	• 100 to 240 VAC, 50 to 60 Hz		
Max Power Consumption	• 35.5 watts	• 61.5 watts	<ul style="list-style-type: none"> <li>• 488.3 watts (with 370 W PoE load)</li> <li>• 946.6 watts (with 760 W PoE load)</li> </ul>
Dimensions (W x D x H)	• 440 x 210 x 44 mm (17.32 x 8.27 x 1.73 inches)	• 440 x 310 x 44 mm (17.32 x 12.20 x 1.73 inches)	• 440 x 310 x 44 mm (17.32 x 12.20 x 1.73 inches)
Weight	• 2568 g (5.66 pounds)	• 4537 g (10 pounds)	• 5312 g (11.71 pounds)
Ventilation	• Smart Fan <sup>d</sup> (High Speed at > 40 °C; Low Speed at < 35 °C)		
Operation Temperature	• 0 to 50 °C (32 to 122 °F)		
Storage Temperature	• -40 to 70 °C (-40 to 158 °F)		
Operating Humidity	• 10% to 90% RH		
Storage Humidity	• 5% to 90% RH		
Emission (EMI)	• FCC Class A, CE Class A, VCCI Class A, IC, C-Tick, BSMI		
Safety	• CB, cUL, LVD, BSMI		
Certification	• IPv6 Ready Logo Phase 2		

**Technical Specifications**

Interfaces	DGS-3120-48PC	DGS-3120-24SC	DGS-3120-24SC-DC
Ports	<ul style="list-style-type: none"> <li>• 44 10/100/1000BASE-T Ports</li> <li>• 4 Combo 10/100/1000BASE-T/SFP Ports</li> </ul>	<ul style="list-style-type: none"> <li>• 16 SFP Ports</li> <li>• 8 Combo 10/100/1000Base-T/SFP Ports</li> </ul>	<ul style="list-style-type: none"> <li>• 16 SFP Ports</li> <li>• 8 Combo 10/100/1000Base-T/SFP ports</li> </ul>
Port Standards & Functions	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T, IEEE 802.3z 1000BASE-X Gigabit Ethernet, IEEE 802.3x Flow Control for Half/Full-Duplex Mode, Auto-negotiation, Auto or configurable MDI/MDIX		
Console Port	• RJ-45		
Stacking Port <sup>1</sup>	• 2		
SD Card Slots	• 1		
Performance			
Switching Capacity	• 136 Gps	• 88 Gps	• 88 Gps
64-Byte Packet Forwarding Rate	• 101.19 Mbps	• 65.48 Mbps	• 65.48 Mbps
Packet Buffer Memory	• 2 MB		
Flash Memory	• 32 MB		
PoE			
PoE Standards	• 802.3af and 802.3at	-	-
PoE Power Budget	<ul style="list-style-type: none"> <li>• 370 watts</li> <li>• 760 watts (with DPS-700 RPS)</li> </ul>	-	-
Physical			
MTBF (Hours)	• 213575.316 hours	• 433404.414 hours	• 418523.195 hours
Acoustics	• Max: 50.2 dB; Min: 37.3 dB	• Max: 46.7 dB; Min: 30.2 dB	• Max: 46.7 dB; Min: 30.2 dB
Heat Dissipation	<ul style="list-style-type: none"> <li>• 1838 BTU/h (with 370 W PoE load)</li> <li>• 3283.83 BTU/h (with 760 W PoE load)</li> </ul>	• 114.235 BTU/h	• 110.825 BTU/h
Power Input	• 100 to 240 V AC, 50 to 60 Hz		• -48 V DC, 1.2 A max
Max Power Consumption	<ul style="list-style-type: none"> <li>• 539 watts (with 370 W PoE load)</li> <li>• 963 watts (with 760 W PoE load)</li> </ul>	• 33.5 watts	• 32.5 watts
Dimensions (W x D x H)	• 440 x 380 x 44 mm (17.32 x 14.96 x 1.73 inches)	• 440 x 260 x 44 mm (17.32 x 10.2 x 1.73 inches)	• 440 x 210 x 44 mm (17.32 x 8.27 x 1.73 inches)
Weight	• 6420 g (14.15 pounds)	• 2643 g (5.83 pounds)	• 2653 g (5.85 pounds)
Ventilation	• Smart Fan <sup>2</sup> (High Speed at > 40 °C; Low Speed at < 35 °C)		
Operation Temperature	• 0 to 50 °C (32 to 122 °F)		
Storage Temperature	• -40 to 70 °C (-40 to 158 °F)		
Operating Humidity	• 10% to 90% RH		
Storage Humidity	• 5% to 90% RH		
Emission (EMI)	• FCC Class A, CE Class A, VCCI Class A, IC, C-Tick, BSMI	• FCC Class A, CE Class A, VCCI Class A, IC, C-Tick	
Safety	• CB, cUL, LVD, BSMI	• CB, cUL, LVD	
Certification	• IPv6 Ready Logo Phase 2		

Software Features - Standard Image (SI) Features			
Stackability	<ul style="list-style-type: none"> <li>Physical Stacking<sup>1</sup> <ul style="list-style-type: none"> <li>Up to 40G Stacking Bandwidth</li> <li>Up to 6 units per Stack</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Virtual Stacking <ul style="list-style-type: none"> <li>D-Link Single IP Management (SIM)</li> <li>Up to 32 units per Virtual Stack</li> </ul> </li> </ul>	
L2 Features	<ul style="list-style-type: none"> <li>MAC Address Table: 16K entries</li> <li>Flow Control <ul style="list-style-type: none"> <li>802.3x Flow Control</li> <li>HOL Blocking Prevention</li> </ul> </li> <li>Jumbo Frames up to 13 Kbytes</li> <li>802.3ad Link Aggregation <ul style="list-style-type: none"> <li>Max. 32 groups per device, 8 Gigabit ports per group</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Spanning Tree Protocols <ul style="list-style-type: none"> <li>802.1D STP</li> <li>802.1w RSTP</li> <li>802.1s MSTP</li> <li>BPDU Filtering</li> <li>Root Restriction</li> </ul> </li> <li>Loopback Detection</li> </ul>	<ul style="list-style-type: none"> <li>Port Mirroring <ul style="list-style-type: none"> <li>One-to-One</li> <li>Many-to-One</li> <li>Flow-based</li> <li>RSPAN Mirroring</li> </ul> </li> </ul>
L2 Multicasting	<ul style="list-style-type: none"> <li>IGMP Snooping <ul style="list-style-type: none"> <li>IGMP v1/v2/v3 Snooping</li> <li>Supports 1024 IGMP groups</li> <li>Port/Host-based IGMP Snooping Fast Leave</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Limited IP Multicast <ul style="list-style-type: none"> <li>Up to 24 IGMP filtering profiles, 32 ranges per profile</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>MLD Snooping <ul style="list-style-type: none"> <li>MLD v1/v2 Snooping</li> <li>Support 1024 MLD Groups</li> <li>Host-based MLD Snooping Fast Leave</li> </ul> </li> </ul>
VLAN	<ul style="list-style-type: none"> <li>VLAN Group <ul style="list-style-type: none"> <li>Max. 4K Active VLAN Groups</li> </ul> </li> <li>GVRP <ul style="list-style-type: none"> <li>Max. 4K Dynamic VLAN Groups</li> </ul> </li> <li>802.1Q Tagged VLAN</li> </ul>	<ul style="list-style-type: none"> <li>Port-based VLAN</li> <li>802.1v Protocol VLAN</li> <li>Voice VLAN</li> <li>MAC-based VLAN</li> </ul>	<ul style="list-style-type: none"> <li>ISM VLAN</li> <li>Asymmetric VLAN</li> <li>Private VLAN</li> <li>VLAN Trunking</li> </ul>
QoS (Quality of Service)	<ul style="list-style-type: none"> <li>802.1p <ul style="list-style-type: none"> <li>8 queues per port</li> </ul> </li> <li>Queue Handling <ul style="list-style-type: none"> <li>Strict Priority</li> <li>Weighted Round Robin (WRR)</li> <li>Strict + WRR</li> </ul> </li> <li>Supports following actions for flows <ul style="list-style-type: none"> <li>Remark 802.1p Priority Tag</li> <li>Remark TOS/DSCP Tag</li> <li>Bandwidth Control</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>CoS based on <ul style="list-style-type: none"> <li>Switch Port</li> <li>VLAN ID</li> <li>802.1p Priority Queues</li> <li>MAC Address</li> <li>IPv4 Address</li> <li>DSCP</li> <li>Protocol Type</li> <li>TCP/UDP Port</li> <li>User-Defined Packet Content</li> <li>IPv6 Address</li> <li>IPv6 Traffic Class</li> <li>IPv6 Flow Label</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Bandwidth Control <ul style="list-style-type: none"> <li>Port-based (Ingress/Egress, Min. Granularity 8 Kbps)</li> <li>Flow-based (Ingress/Egress, Min. Granularity 8 Kbps)</li> </ul> </li> <li>Three Color Marker <ul style="list-style-type: none"> <li>CIR/PIR minimum granularity: 8 kbps</li> </ul> </li> <li>Two Rate Three Color Marker (trTCM), CBS/PBS</li> <li>Single Rate Three Color Marker (srTCM), CBS/EBS</li> </ul>
Access Control List (ACL)	<ul style="list-style-type: none"> <li>ACL based on <ul style="list-style-type: none"> <li>802.1p Priority</li> <li>VLAN ID</li> <li>MAC Address</li> <li>Ether Type</li> <li>IPv4 Address</li> <li>DSCP</li> <li>Protocol Type</li> <li>TCP/UDP Port Number</li> <li>User-Defined Packet Content</li> <li>IPv6 Address</li> <li>IPv6 Flow Label</li> <li>IPv6 Traffic Class</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Supports up to 1.5K Ingress access rules</li> <li>Time-based ACL</li> <li>CPU Interface Filtering</li> </ul>	
Security	<ul style="list-style-type: none"> <li>SSH v2</li> <li>SSL v1/v2/v3</li> <li>Port Security <ul style="list-style-type: none"> <li>Up to 64 MAC addresses per port/VLAN</li> </ul> </li> <li>IP source guard</li> </ul>	<ul style="list-style-type: none"> <li>Broadcast/Multicast/Unicast Storm Control</li> <li>Traffic Segmentation</li> <li>D-Link Safeguard Engine</li> <li>NetBIOS/NetBEUI Filtering</li> <li>Root protection</li> </ul>	<ul style="list-style-type: none"> <li>DHCP Server Screening</li> <li>DHCP protection</li> <li>DoS Attack Prevention</li> <li>BPDU Attack Protection</li> <li>Dynamic ARP protection</li> <li>Loop protection</li> </ul>

AAA	<ul style="list-style-type: none"> <li>• 802.1X: <ul style="list-style-type: none"> <li>• Port-based Access Control</li> <li>• Host-based Access Control</li> </ul> </li> <li>• Identity-driven Policy (VLAN, ACL or QoS) Assignment</li> <li>• Authentication Database Failover</li> <li>• Web-based Access Control (WAC): <ul style="list-style-type: none"> <li>• Port-based Access Control</li> <li>• Host-based Access Control</li> <li>• Identity-driven Policy (VLAN, ACL or QoS) Assignment</li> <li>• Authentication Database Failover</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• MAC-based Access Control (MAC): <ul style="list-style-type: none"> <li>• Port-based Access Control</li> <li>• Host-based Access Control</li> </ul> </li> <li>• Identity-driven Policy (VLAN, ACL or QoS) Assignment</li> <li>• Authentication Database Failover</li> <li>• Japan Web-based Access Control (Host-based JWAC)</li> <li>• Guest VLAN</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft® NAP <ul style="list-style-type: none"> <li>• Support 802.1X NAP</li> <li>• Support DHCP NAP</li> </ul> </li> <li>• RADIUS Accounting</li> <li>• TACACS+ Accounting</li> <li>• RADIUS and TACACS authentication for switch access</li> <li>• Four levels of User Account control</li> </ul>
Green Features	<ul style="list-style-type: none"> <li>• Compliant with RoHS</li> <li>• Diagnostic LEDs Power, Link, Status</li> </ul>	<ul style="list-style-type: none"> <li>• Power Saving by Cable Length, Link Status</li> <li>• Time-based PoE<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>• IEEE 802.3az Energy Efficient Ethernet (EEE)</li> </ul>
Operation, Administration & Management (OAM)	<ul style="list-style-type: none"> <li>• Cable Diagnostics</li> </ul>		
Management	<ul style="list-style-type: none"> <li>• Web-based GUI</li> <li>• Command Line Interface (CLI)</li> <li>• Telnet Server</li> <li>• Telnet Client</li> <li>• TFTP Client</li> <li>• DNS Client</li> <li>• Secure FTP Server</li> <li>• ZModem</li> <li>• SNMP v1/v2c/v3</li> <li>• SNMP Traps</li> <li>• System Log</li> </ul>	<ul style="list-style-type: none"> <li>• RMON v1: <ul style="list-style-type: none"> <li>• Supports 1,2,3,9 groups</li> </ul> </li> <li>• RMON v2: <ul style="list-style-type: none"> <li>• Supports ProbeConfig group</li> </ul> </li> <li>• LLDP, LLDP-MED</li> <li>• BootP/DHCP Client</li> <li>• DHCP Auto-Configuration</li> <li>• DHCP Relay</li> <li>• DHCP Client Option 12</li> <li>• DHCP Relay Option 18, 37, 82</li> <li>• Flash File System</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple Images</li> <li>• Multiple Configurations</li> <li>• CPU Monitoring</li> <li>• Debug Command</li> <li>• SNMP</li> <li>• Password Recovery</li> <li>• Password Encryption</li> <li>• Trusted Host</li> <li>• Microsoft® NLB (Network Load Balancing) Support</li> <li>• ICMPv6</li> </ul>
MIB	<ul style="list-style-type: none"> <li>• RFC 1213 MIB II</li> <li>• RFC 4188 Bridge MIB</li> <li>• RFC 1157, 2571-2576 SNMP MIB</li> <li>• RFC 1907 SNMPv2 MIB</li> <li>• RFC 1757, 2819 RMON MIB</li> <li>• RFC 2021 RMONv2 MIB</li> <li>• RFC 1398, 1643, 1650, 2358, 2665 Ether-like MIB</li> <li>• RFC 2674 802.1p MIB</li> </ul>	<ul style="list-style-type: none"> <li>• RFC 2233, 2863 IF MIB</li> <li>• RFC 2618 RADIUS Authentication Client MIB</li> <li>• RFC 2620 RADIUS Accounting Client MIB</li> <li>• RFC 2925 PING &amp; TRACEROUTE MIB</li> <li>• RFC 2674, 4363 802.1p MIB</li> <li>• RFC 1065, 1066, 1155, 1156, 2578 MIB Structure</li> </ul>	<ul style="list-style-type: none"> <li>• RFC 1215 MIB Traps Convention</li> <li>• RFC 1212 Concise MIB Definitions</li> <li>• RFC 1215 MIB Traps Convention</li> <li>• RFC 1157, 2571-2576 SNMP MIB</li> <li>• RFC 4022 MIB for TCP</li> <li>• RFC 4113 MIB for UDP</li> <li>• RFC 4293 IPv6 SNMP Mgmt Interface MIB</li> <li>• RFC 2737 Entity MIB (version 2)</li> </ul>
RFC Standard Compliance	<ul style="list-style-type: none"> <li>• RFC 768 UDP</li> <li>• RFC 791 IP</li> <li>• RFC 792, 2463, 4443 ICMP</li> <li>• RFC 793 TCP</li> <li>• RFC 826 ARP</li> <li>• RFC 3513, 4291, IPv6 Addressing Architecture</li> <li>• RFC 2893, 4213 IPv4/IPv6 dual stack function</li> <li>• RFC 2463, 4443 ICMPv6</li> </ul>	<ul style="list-style-type: none"> <li>• RFC 2462, 4862 IPv6 Stateless Address Auto Configuration</li> <li>• RFC 2464 IPv6 Ethernet and definition</li> <li>• RFC 1981 Path MTU Discovery for IPv6</li> <li>• RFC 2460 IPv6</li> <li>• RFC 2461, 4861 Neighbor Discovery for IPv6</li> <li>• RFC 783 TFTP</li> </ul>	<ul style="list-style-type: none"> <li>• RFC 2068 HTTP</li> <li>• RFC 1492 TACACS</li> <li>• RFC 2866 RADIUS Accounting</li> <li>• RFC 2474, 3260 DiffServ</li> <li>• RFC 1321, 2284, 2865, 3580, 3748 Extensible</li> <li>• Authentication Protocol (EAP)</li> <li>• RFC 2571, 2572, 2573, 2574, SNMP</li> <li>• IPv6 Ready Logo Phase 2</li> <li>• RFC 854 Telnet</li> <li>• RFC 951, 1542 BootP</li> </ul>

Software Features - Enhanced Image (EI) Features			
L2 Features	• Ethernet Ring Protection Switching (ERPS)		
VLAN	• Double VLAN (Q-in-Q) • Port-based Q-in-Q		
L3 Features	• Max. 16 IP Interfaces • ARP Proxy	• IPv6 Neighbour Discovery (ND)	
L3 Routing	• Static Route • 512 static routing entries for IPv4/IPv6		
Access Control List (ACL)	• Supports up to 512 egress access rules		
Security	• IP-MAC-Port Binding • Dynamic ARP protection • IP Packet Inspection • DHCP Snooping • DHCP Protection • Support up to 510 Address Binding Entries per Device	• IP Source guard • IPv6 ND Snooping • BPDU Guard • Root Protection • Loop Protection	
AAA	• Compound Authentication		
Operation, Administration & Management (OAM)	• 802.3ah Ethernet Link OAM • 802.3ah D-Link Extension: D-link Unidirectional Link Detection (DULD)	• 802.1ag Connectivity Fault Management (CFM)	• ITU-T.Y.1731
Management	• sFlow	• PPPoE Circuit-ID Tag Insertion	
Software Features - Routed Image (RI) Features			
L3 features	• VRRP	• IPv6 Tunneling	
L3 Routing	• RIPv1/ v2	• OSPF	• IP Directed Broadcast
L3 Multicasting	• IGMPv1/v2/v3 • MLD • IGMP/MLD Proxy	• Multicast Duplication • PIM DM • PIM SM	• PIM SSM • PIM Spare-Dense Mode • DVMRPv3

Order Information <sup>6</sup>	
DGS-3120-24TC/SI	20 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP ports with embedded Standard Image
DGS-3120-24TC/EI	20 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP ports with embedded Enhanced Image
DGS-3120-24TC/RI	20 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP ports with embedded Routed Image
DGS-3120-48TC/SI	44 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP ports with embedded Standard Image
DGS-3120-48TC/EI	44 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP ports with embedded Enhanced Image
DGS-3120-48TC/RI	44 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP ports with embedded Routed Image
DGS-3120-24SC/SI	16 SFP ports and 8 Combo 10/100/1000BASE-T/SFP ports with embedded Standard Image
DGS-3120-24SC/EI	16 SFP ports and 8 Combo 10/100/1000BASE-T/SFP ports with embedded Enhanced Image
DGS-3120-24SC/RI	16 SFP ports and 8 Combo 10/100/1000BASE-T/SFP ports with embedded Routed Image
DGS-3120-24SC-DC/SI	16 SFP ports and 8 Combo 10/100/1000BASE-T/SFP ports with embedded Standard Image and DC power supply
DGS-3120-24SC-DC/EI	16 SFP ports and 8 Combo 10/100/1000BASE-T/SFP ports with embedded Enhanced Image and DC power supply
DGS-3120-24SC-DC/RI	16 SFP ports and 8 Combo 10/100/1000BASE-T/SFP ports with embedded Routed Image and DC power supply
DGS-3120-24PC/SI	20 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP PoE ports with embedded Standard Image
DGS-3120-24PC/EI	20 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP PoE ports with embedded Enhanced Image
DGS-3120-24PC/RI	20 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP PoE ports with embedded Routed Image
DGS-3120-48PC/SI	44 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP PoE ports with embedded Standard Image
DGS-3120-48PC/EI	44 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP PoE ports with embedded Enhanced Image
DGS-3120-48PC/RI	44 10/100/1000BASE-T ports and 4 Combo 10/100/1000BASE-T/SFP PoE ports with embedded Routed Image
Optional Products - Software License	
DGS-3120-24TC-SE-LIC	DGS-3120-24TC DLMS License Pack from Standard Image to Enhanced Image
DGS-3120-24TC-ER-LIC	DGS-3120-24TC DLMS License Pack from Enhanced Image to Routed Image
DGS-3120-24TC-SR-LIC	DGS-3120-24TC DLMS License Pack from Standard Image to Routed Image
DGS-3120-24PC-SE-LIC	DGS-3120-24PC DLMS License Pack from Standard Image to Enhanced Image
DGS-3120-24PC-ER-LIC	DGS-3120-24PC DLMS License Pack from Enhanced Image to Routed Image
DGS-3120-24PC-SR-LIC	DGS-3120-24PC DLMS License Pack from Standard Image to Routed Image
DGS-3120-24SC-SE-LIC	DGS-3120-24SC DLMS License Pack from Standard Image to Enhanced Image
DGS-3120-24SC-ER-LIC	DGS-3120-24SC DLMS License Pack from Enhanced Image to Routed Image
DGS-3120-24SC-SR-LIC	DGS-3120-24SC DLMS License Pack from Standard Image to Routed Image
DGS-3120-24SCDSE-LIC	DGS-3120-24SC-DC DLMS License Pack from Standard Image to Enhanced Image
DGS-3120-24SCDER-LIC	DGS-3120-24SC-DC DLMS License Pack from Enhanced Image to Routed Image
DGS-3120-24SCDSR-LIC	DGS-3120-24SC-DC DLMS License Pack from Standard Image to Routed Image
DGS-3120-48TC-SE-LIC	DGS-3120-48TC DLMS License Pack from Standard Image to Enhanced Image



DGS-3120-48TC-ER-LIC	DGS-3120-48TC DLMS License Pack from Enhanced Image to Routed Image
DGS-3120-48TC-SR-LIC	DGS-3120-48TC DLMS License Pack from Standard Image to Routed Image
DGS-3120-48PC-SE-LIC	DGS-3120-48PC DLMS License Pack from Standard Image to Enhanced Image
DGS-3120-48PC-ER-LIC	DGS-3120-48PC DLMS License Pack from Enhanced Image to Routed Image
DGS-3120-48PC-SR-LIC	DGS-3120-48PC DLMS License Pack from Standard Image to Routed Image
<b>Optional Products - Management Software</b>	
DV-600S	D-View 6.0 Network Management System (Standard Edition)
DV-600P	D-View 6.0 Network Management System (Professional Edition)
<b>Optional Products - Accessories</b>	
DEM-CB50	50 cm Stacking Cable
DEM-CB100	100 cm Stacking Cable
DEM-CB300	300 cm Stacking Cable
DEM-CB50ICX	50 cm Cable for connecting with CX4 devices
<b>Optional Products - SFP Transceivers</b>	
DEM-712	1000BASE-T Copper SFP Transceiver
DEM-302S-LX	1000Base-LX, Single-mode, 2km
DEM-310GT	1000BASE-LX, Single-mode, 10 km
DEM-311GT	1000BASE-SX, Multi-mode, 500 m
DEM-312GT2	1000BASE-SX, Multi-mode, 2 km
DEM-314GT	1000BASE-LHX, Single-mode, 50 km
DEM-315GT	1000BASE-ZX, Single-mode, 80 km
DEM-210	100BASE-FX, Single-mode, 15 km
DEM-211	100BASE-FX, Multi-mode, 2 km

# DGS-3120 Series xStack L3 Managed Gigabit Switches

Optional Products - WDM SFP Transceivers	
DEM-302S-BXD	1000BASE-LX, Wavelength Tx:1550nm Rx:1310nm, Single-mode, 2 km
DEM-302S-BXU	1000BASE-LX, Wavelength Tx:1310nm Rx:1550nm, Single-mode, 2 km
DEM-330T	1000BASE-LX, Wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 10 km
DEM-330R	1000BASE-LX, Wavelength Tx:1310 nm Rx:1550 nm, Single-mode, 10 km
DEM-331T	1000BASE-LX, Wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 40 km
DEM-331R	1000BASE-LX, Wavelength Tx:1310nm Rx:1550 nm, Single-mode, 40 km
DEM-220T	100BASE-BX, Wavelength Tx:1550nm Rx:1310 nm, Single-mode, 20 km
DEM-220R	100BASE-BX, Wavelength Tx:1310nm Rx:1550 nm, Single-mode, 20 km

<sup>1</sup> Only supported in SI and EI mode

<sup>2</sup> Only supported in EI mode and RI mode

<sup>3</sup> Only supported in RI mode

<sup>4</sup> By default, the fan speed is low. When over 40 °C, the fan switches to high speed and remains high until the temperature drops below 35 °C.

<sup>5</sup> Supported in DGS-3120-24PC and DGS-3120-48PC only.

<sup>6</sup> Stacking cable and SD card are not included

Updated 2014/06/12