

DGS-1520 vs 1510 vs 3130 Series Feature Comparison



Benefits of Migrating to the D-Link DGS-1520 Multi-Gigabit Smart Managed Switch Series

Why should you migrate to the D-Link DGS-1520 Series? Compare and discover what your business is missing.

The DGS-1520 Series, a new generation of Multi-Gigabit Stackable Smart Managed Switches, includes 10G Base-T and 10GSFP+. It also supports stacking up to a total of 8 switches, with a total of 80 Gigabit stacked bandwidth capacity. Not only designed for effortless multi-site network deployments with Zero Touch Provisioning, the DGS-1520 Series is also powerful enough for server and storage applications. For unrestricted Wi-Fi 6 edge device capabilities, PoE models offer four 2.5G Base-T ports for Multi-Gigabit connectivity. For SMBs with expanding networks and significant bandwidth growth, the DGS-1520 Series effortlessly adds highly cost-effective 10GbE connectivity to ensure seamless aggregation between access and core layers.



Hardware Feature Enhancements



Zero Touch Provisioning

Zero-touch provisioning is perfect for multi-site network expansions. Simply preconfigure your network settings in a centralized location, then install the DGS-1520 switches for effortless deployments.



Multi-Gigabit Support

Multi-Gigabit ports on the DGS-1520 Series switch (PoE models only) support 100M/1G/2.5G/10G speeds to maximize various device capabilities, such as Wi-Fi 6 (802.11ax) access points, which can often exceed Gigabit speeds.



Flexible Stacking Capability

Stack up to 8 DGS-1520 switches with a total of 80G stacking bandwidth using hybrid mode (copper and/or fiber), increasing flexibility, scalability, and cost effectiveness for SMBs.



Advanced Manageability




The DGS-1520 series supports advanced features such as dynamic routing that helps you adapt to network changes or traffic loads automatically. Selective QinQ allow service providers to use a single VLAN to serve customers who have multiple VLANs.



Power Redundancy

Connect a DPS-520 redundant power supply via management port to enhance network reliability (non-PoE models only). In the event of an internal PSU failure, the resiliency power supply is immediately triggered to maintain uninterrupted operation of the LAN switch and its connected devices for a more reliable network infrastructure.

DGS-1520/DGS-1510/DGS-3130 Series Comparison

	DGS-1520 Series	DGS-1510 Series	DGS-3130 Series
Benefits			
Segment	Lite Layer 3 Gigabit Stackable Smart Managed Switch	Gigabit Stackable Smart Managed Switch	Layer 3 Stackable Fully Managed Switch
High Availability and Flexibility	<ul style="list-style-type: none"> • 10/100/1000Base-T Ports • 10G Base-T ports and SFP+ ports • 2.5GBase-T PoE Ports (PoE Models only) 	<ul style="list-style-type: none"> • 10/100/1000Base-T Ports • Gigabit SFP ports • 4 x 10GSFP+ Uplink Port 	<ul style="list-style-type: none"> • 10/100/1000 Base-T ports • 6 x 10g Base-T/10GSFP+ uplink port
High Bandwidth Stacking	<ul style="list-style-type: none"> • Physical stacking of up to 8 units • Supports Hybrid stacking 2 x 10G Base-Tand/or SFP+ • 80 Gbps physical stacking bandwidth 	<ul style="list-style-type: none"> • 4 x 10GSFP+ Uplink Port • Physical stacking of up to 6 units • 40 GB physical stacking bandwidth 	<ul style="list-style-type: none"> • Physical stacking up to 9 units • Supports long-distance stacking over fiber • 80 Gbps per device physical stacking bandwidth
Zero Touch Provisioning (ZTP)	Yes	NO	NO
Redundant Power Supply	PoE RPS for Non-PoE Model AC RPS for PoE model	AC RPS (DGS-1510-52XMP only)	AC RPS for PoE, Non-PoE model DC RPS for non-PoE
Reliability and Resiliency	<ul style="list-style-type: none"> • Ethernet Ring Protection Switching (ERPS) V2.0 • Virtual Router Redundancy Protocol (VRRP) 	<ul style="list-style-type: none"> • Ethernet Ring Protection • Switching (ERPS) V1.0 Only 	<ul style="list-style-type: none"> • Ethernet ring protection (ERPS) V2.0 • Virtual Router Redundancy Protocol (VRRP) • 6kV Surge Protection • Dying Gasp • Real time clock • 802.1ag, 802.3ah, Y.1731

Software Feature Enhancements

Zero Touch Provisioning (ZTP)

The DGS-1520 Series with Zero Touch Provisioning are designed for automated and effortless multi-site network expansions, saving time and configuration costs to lower your budget significantly. Simply upload switch configurations from a central location and install the DGS-1520 Series onto the network for swift deployment and sound network auditing.

Selective Q-in-Q

The DGS-1520 series comes with Selective Q-in-Q, which owns the functions of basic Q-in-Q but is much more flexible. It can identify the inner VLAN tag of the packets according to the MAC address, IP protocol, source IP address and VLAN tag, then determine which tag should be added.

Ethernet Ring Protection Switching (ERPS) v1/v2

The DGS-1520 Series is upgraded with ERPS V2.0, which is suitable for mission critical environments that demand ultra-low latency. It provides stable protection of the entire Ethernet Ring from any loops. Loops fatally affect network operation and service availability, thus, deploying network equipment with supported ITU-T G.8032 v2 ERPS with less than 50ms recovery time will significantly increase network reliability.

VRRP

VRRP can prevent loss of network connectivity to end hosts if the static default IP gateway fails. By implementing VRRP, several routers can be designated as backup routers if the default master router fails.

RSPAN

RSPAN allows monitoring of traffic from source ports distributed over multiple switches to centralize network capture devices. RSPAN works by mirroring the traffic from the source ports of an RSPAN session onto a VLAN that is dedicated for the RSPAN session.

RIP

The DGS-1520 series comes with Routing Information Protocol (RIP), which is a dynamic routing protocol that uses hop count as a routing metric to find the best path between the source and the destination network. The main advantages of dynamic routing over static routing are scalability and adaptability. A dynamically routed network can grow more quickly and larger, and is able to adapt to changes in the network topology brought about by this growth or by the failure of one or more network components.

OSPF

The DGS-1520 series comes with Open shortest path first (OSPF), which is a link-state routing protocol that is used to find the best path between the source and the destination router using its own shortest path first (SPF) algorithm. The topology information is flooded throughout the autonomous system, so that every router within the autonomous system has a complete picture of the topology of the autonomous system. This can be useful for traffic engineering purposes, where routes can be constrained to meet particular quality of service (QoS) requirements.

Software Features: DGS-1520/DGS-1510/DGS-3130 Series

Features

DGS-1520 Series



DGS-1510 Series



DGS-3130 Series



L2 Features

ERPS V2.0



L2 Multicasting

IGMP/MLD Snooping Groups

512/256

IGMP

512 (V3 Awareness), 63 (V3)

MLD

512 (V3 Awareness), 31 (V3)

1024/1024

VLAN

Voice VLAN



Auto Surveillance VLAN



Asymmetric VLAN



Private VLAN



Super VLAN



Selective Q-in-Q



Software Features: DGS-1520/DGS-1510/DGS-3130 Series

Features

DGS-1520 Series



DGS-1510 Series



DGS-3130 Series



L3 Features			
ARP Proxy	●		●
IPv6 Neighbor Discovery (ND)	●	●	●
VRRP	●		●
L3 Routing			
RIPv1/v2/ng	●		●
OSPF	●		●
L3 Multicasting			
IGMP Filtering	●		●
MLD	●		●
PIM	●		●
DVMRPv3	●		●
Security			
ACL	Ingress 1536, Egress 512	Ingress 256	Ingress 1536, Egress 512
OAM			
	<ul style="list-style-type: none"> • Cable Diagnostics • sFlow • Optical Transceiver Digital Diagnostic Monitoring (DDM) 	<ul style="list-style-type: none"> • Cable Diagnostics • sFlow • Factory Reset 	<ul style="list-style-type: none"> • Cable Diagnostics • sFlow • Optical Transceiver Digital Diagnostic Monitoring (DDM) • IEEE 802.3ah Ethernet Link OAM • IEEE 802.1ag/ITU-T Y.1731 Service OAM • D-Link Unidirectional Link Detection (DULD) • Dying Gasp