D-Link

TOTAL BUSINESS
SOLUTIONS GUIDEBOOK

Switching | Wireless | Security | 4G/5G M2M VPN | Transceiver & Media Converter

Your Link to Business Success

D-Link Manageable Network Solution
Network Management Your Way

⟨ nuclias cloud

DBA – Access Point

DBS – Switches

DBG – Business Gateway

⟨ nuclias connect

DAP – Access Point

DGS – Network and PoE Switches

DNH – Controller HUB

Cloud Managed

Locally Server / Hub Managed

D-Link

nuclias
cloud

Configure Nuclias Cloud by using browser anywhere

HEADQUARTERS

HTTPS

SWITCHES

HTTPS

BUSINESS GATEWAY

VPN

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INTERNET

VPN   VPN

BUSINESS GATEWAY   BUSINESS GATEWAY

BRANCH OFFICE A   BRANCH OFFICE A

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REMOTE MANAGEMENT

OFFICE A   OFFICE B

HTTPS   HTTPS

ROUTER   ROUTER

INTERNET

LOCAL MANAGEMENT

nuclias connect

DNC-100

NUCLIAS CONNECT HUB
DNH-100

SWITCHES

HEADQUARTERS

Nuclias Cloud Supported Devices

Cloud Business Gateway   Cloud Switch   Cloud AP
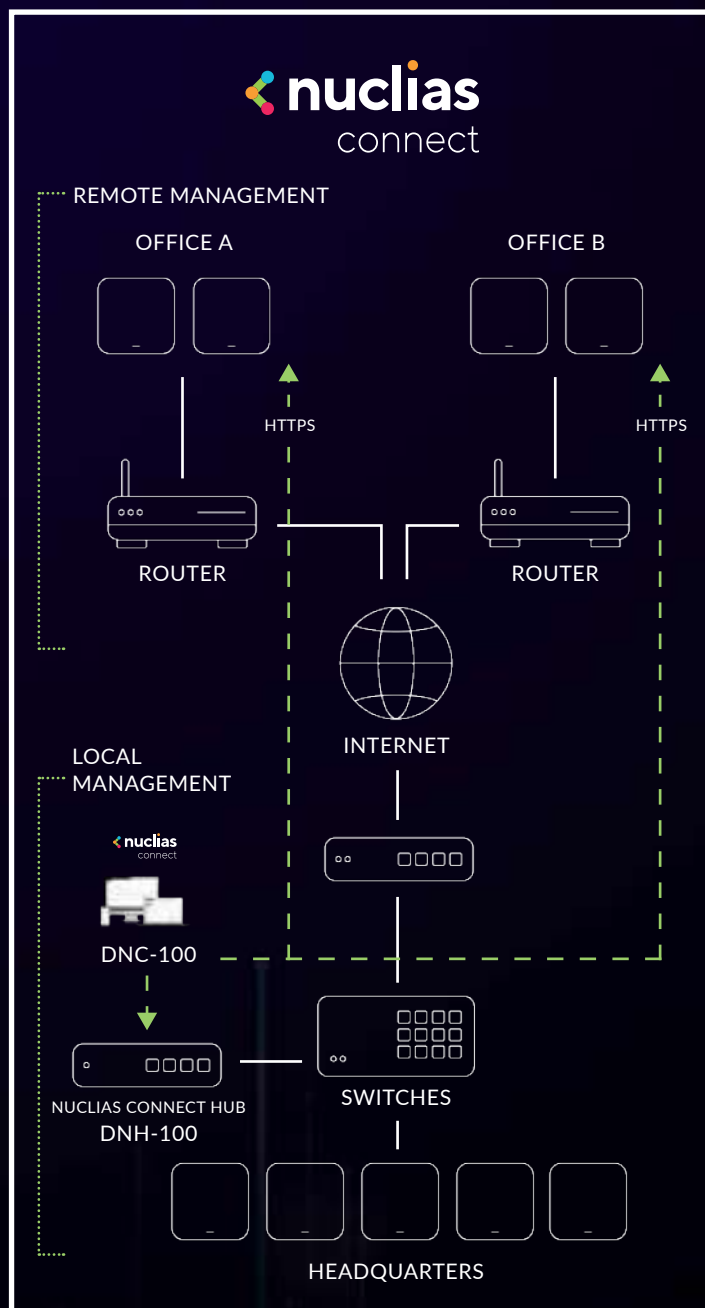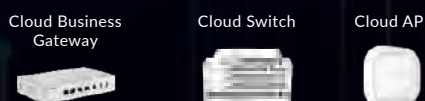
Nuclias Connect Supported Devices
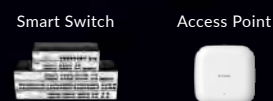
*DGS-1210 & DGS-1100v2 selected model

Smart Switch   Access Point

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CONVENIENT NETWORK MANAGEMENT

Leverage the power of Nuclias to conveniently & cost-effectively automate, monitor, manage, and scale your wireless network. It's simple and intuitive, and designed to make the scaling process cost-effective for Small-to-Medium-sized Businesses (SMBs). Don't waste hours configuring new devices onsite. Don't waste time looking for the right metrics. Nuclias has the flexibility to make onboarding, studying, troubleshooting, and reporting your network activity quick and easy.

CONTROL ACROSS THE NETWORK

Nuclias is an end-to-end solution. Whether you have a small chain of coffee shops, a bustling hotel, or even a college campus to cover, Nuclias offers the enterprise-grade hardware, software, and reliability you need to provide a seamless connected experience – indoors and outdoors.

NUCLIAS IS MADE FOR YOU

Every business is unique, including yours. When it comes to network management, there are two ways for SMBs to approach it – and Nuclias offers a solution for each. Some want simple, worry-free network management that mostly stays out of sight, and just works (Nuclias Cloud). Others are more interested in their infrastructure, and see the value of taking a more active role in network management (Nuclias Connect).

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Choose D-Link for more performance, more reliability, more functionality

For over three decades, D-Link has been creating complete, end-to-end networking solutions that deliver just that, and more. With a track record of product innovation and industry-beating growth, D-Link is today a billion dollar company with the scale, the resources, the experience and the expertise that the world's most demanding businesses look for.

How has this been achieved? We make sure we stay really close to our customers' businesses and then, because our R&D resources are geared to fast-track product development, we provide them with early access to the most advanced solutions possible.

It all adds up to state-of-the-art solutions that will really work for your business – D-Link's switching, wireless, security, surveillance, storage and management solutions deliver best-in-class performance. We offer standardised technology with industry leading functionality integrated into highly flexible, highly reliable and highly secure solutions that are easy to implement, at a price you can afford. Who could ask for more?

WI-FI 6

This is The End of Slow Business

Next-gen connectivity for next-gen businesses

MU-MIMO	OFDMA	2.4 GHz	1024 QAM	TARGET WAKE TIME	BSS COLORING
MU-MIMO	OFDMA	2.4 GHZ BAND COMPATIBILITY	1024-QAM	TARGET WAKE TIME	BSS COLORING

We are now entering a whole new high speed internet era, the demand for high speed and density wireless access from users has changed from a good to have to a necessity. Due to this, network performance has become a business-critical requirement. Both staffs and consumers have come to expect a secure, reliable & fast Wi-Fi connection – the absence of which can influence their decision to enter an establishment or to leave.

In order to attract and retain customers and employees, companies need to offer secure, reliable Wi-Fi and an amazing experience, or risk losing business. And, to accommodate the growing number of mobile and IoT devices, improvements to the efficiency of a wireless network – and how it handles congestion and ever-increasing capacity demands has become a key factor of success.

WIFI 6 provide new technological enhancements that allow for all businesses and users to optimize their performance, especially in high density network environments such as supermarkets, schools, busy offices, and factories where multiple users use multiple devices simultaneously. Designed for operation in both the 2.4 GHz and 5 GHz spectrums, these access points provide more reliable, consistent connections over a longer range. MU-MIMO, OFDMA, and 1024-QAM dramatically reduce latency as well as increase data rate throughput and network capacity. In addition to enhanced security with support for WPA3 Enterprise wireless encryption, the new access points also provide PoE support, Airtime Fairness to efficiently share coverage among clients, and Band Steering for efficient traffic management.

nuclias cloud

nuclias connect

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WI-FI 6

What is Wi-Fi 6?

Wi-Fi 6, also referred to as the 802.11ax protocol, promises to bring blazing wireless connectivity for enhanced user experiences like never before. But aside from the obvious consumer benefits, Wi-Fi 6 is also generating a lot of excitement for IoT environments in many vertical industrial applications. In this paper, we will take a look at 5 key features that enable Wi-Fi 6 to achieve high data rate and low-latency performance in challenging high-density scenarios.

OFDMA

Wi-Fi 6

Webpage

Zoom

Skype
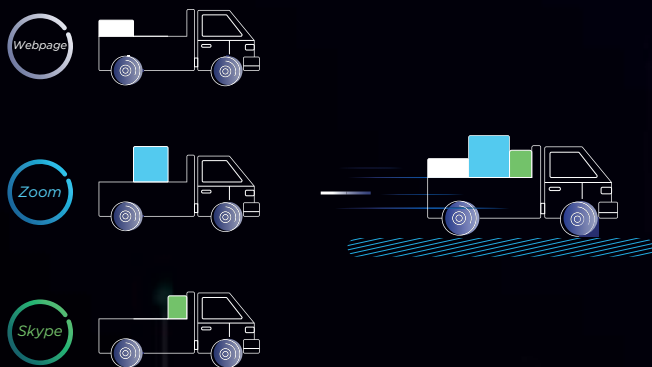
Wi-Fi 6 uses OFDMA, an extension of the OFDM architecture, to improve data-rate efficiency and reduce latency for densely-connected wireless networks, such as IoT environments for Smart industrial applications. OFDMA can significantly boost data throughput and reduce wireless latency by achieving highly-efficient spectral usage across the wireless signal.

MU-MIMO
Multi-User Multiple Input Multiple Output

Wi-Fi 5
802.11ac

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Wi-Fi 6
802.11ax

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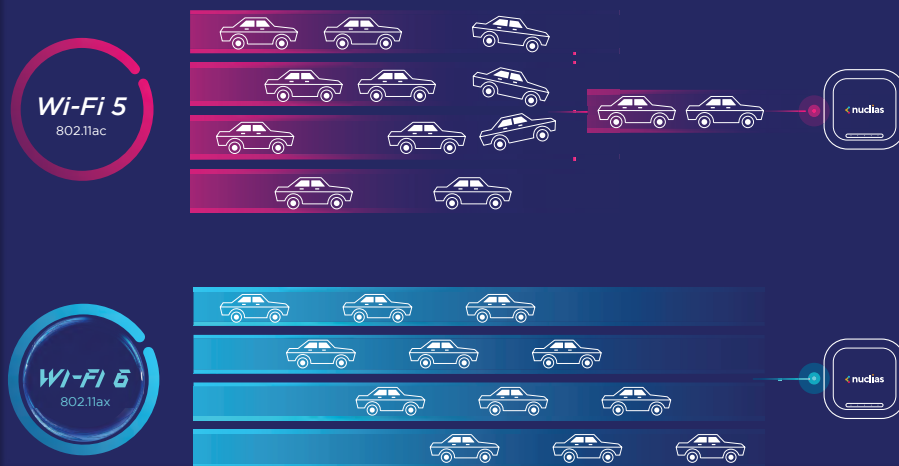
MU-MIMO, to further reduce network latency and significantly increase wireless network bandwidth. Earlier versions of Wi-Fi 5 used SU-MIMO* (Single User Multiple Input Multiple Output), which only allowed communication with multiple devices in consecutive order, or one at a time. Wi-Fi 6 with MU-MIMO uses multiple spatial streams for simultaneous communication with multiple devices which greatly improve both upload and download performance.

1024 QAM

**1024 QAM**
Higher capacity up to 25%

+25%

BONUS
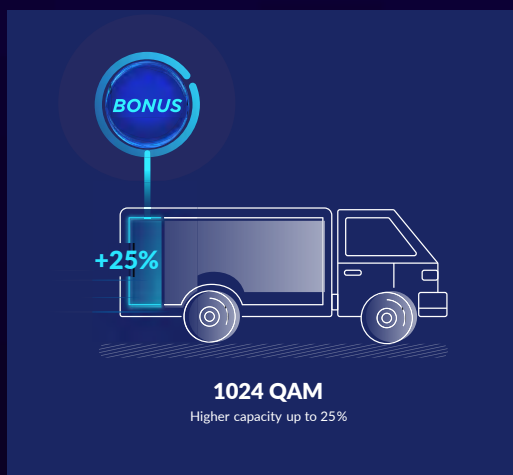
To further facilitate massive amounts of data transfer on the wireless network, Wi-Fi 6 uses 1024 quadrature amplitude modulation (1024 QAM), an improvement from the previous Wi-Fi 5 modulation scheme (256 QAM), to add another 2 bits of data per symbol transmitted (total of 10 bits), enabling Wi-Fi 6 to ensure high quality of service (QoS) for high-traffic venues such as sport arenas, train stations, and convention centers. That's an impressive 25% increase in data rate throughput.

TWT
Target Wake Time

OK!
Who's next?

Access Point

I am!
Hey!
Me!
Me!
I am!

Contention-Based Access

To reduce network congestion and optimize spectral efficiency, TWT enables the access point to schedule communication timeslots for every device on the network, placing all devices in sleep mode except the one device being served during the scheduled time period, significantly reducing network congestion and effectively conserving device battery life. For densely-connected IoT environments, such as wireless sensor networks (WSN) in factory automation, battery conservation is a huge benefit.
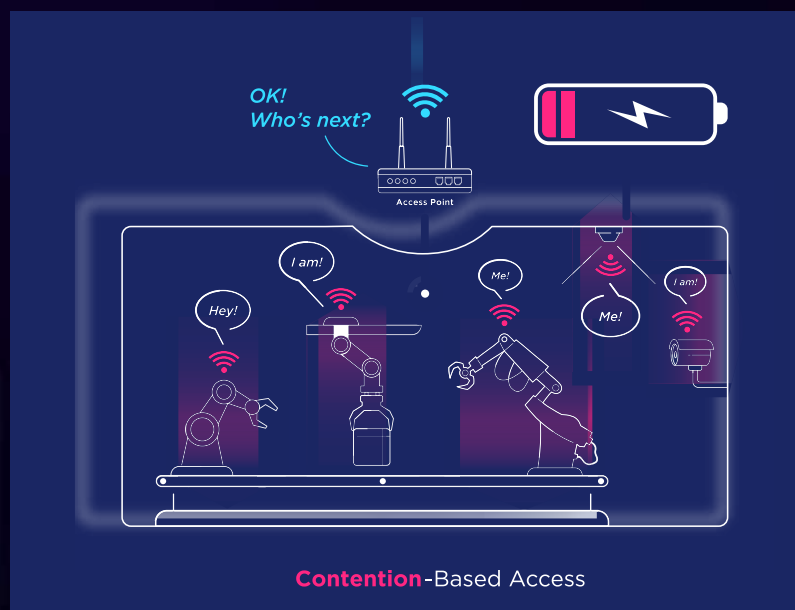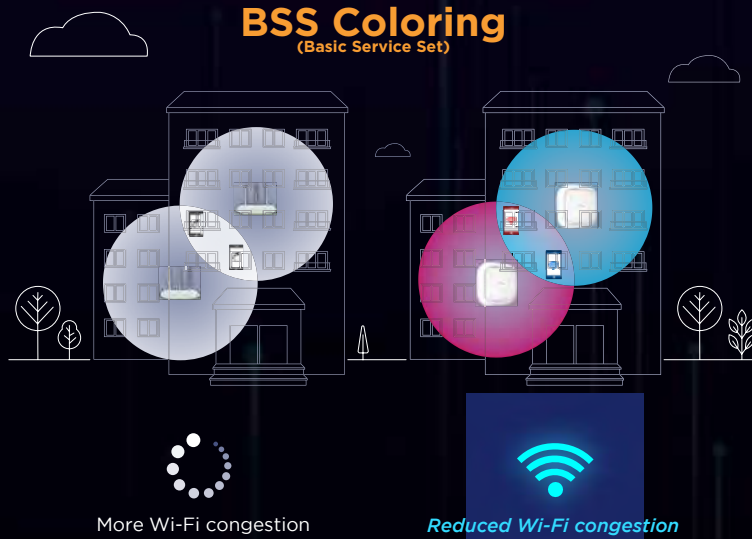
BSS Coloring
**(Basic Service Set)**

More Wi-Fi congestion

Reduced Wi-Fi congestion

To minimise wireless interference, the Wi-Fi 6 protocol enables access points to inject 'coloring' information into the data packet when coverag overlap with another BSS is detected, enabling devices to effectively identify and ignore signals from another wireless network. The access point can also change its color if a neighboring BSS access point is using the same color (known as color collision). The access point embeds a blue color element into the data packet, allowing the device to ignore all signals from the overlapping network, effectively eliminating interference.

Aside from fantastic features to enhance your business Wi-Fi, D-Link also offers a series of cost effective multi-gigabit (2.5Gbps) PoE switches that maximize the bandwidth of Wi-Fi 6 deployment.


2.5G Port

2.5Gbps + POE   2.5Gbps + POE
2.5Gbps + POE   2.5Gbps + POE
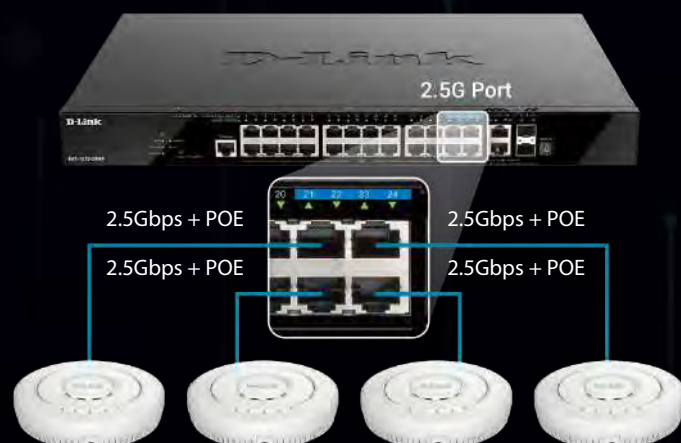
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D-Link Wi-Fi 6 for Your Business

Managing wireless networks for high-traffic locations such as corporate offices, schools, hotels, and shopping centers can be very challenging, even for experienced IT managers and MSPs (Managed Service Providers). In this section, we'll briefly discuss how D-Link Nuclias network management is able to resolve the pain points or concerns for these key business sectors.

1. Enterprise
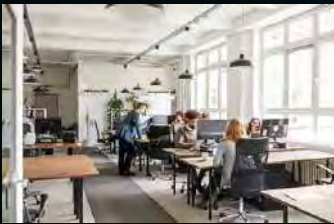
In fast-paced corporate offices where agile working environments have been adopted, access to high-bandwidth services such as high-definition video streaming and cloud-based applications can happen anytime, anywhere. While Wi-Fi 6 can alleviate many traffic-related network bottlenecking, an agile working environment will still need an agile form of network management to effectively minimize network congestion. Most enterprise networks will also require ample network security measures to protect sensitive company data from unauthorized access.

2. Education

Wi-Fi connectivity is a must-have for classrooms, and so are access permissions for the various types of users, curriculum, and locations across the campus. In addition to blocking access to unauthorized websites, network administrators should also have the ability to control every aspect of the network, such as activating specific network segments for targeted class sessions and disabling network access for empty classrooms to preserve network bandwidth and prevent unauthorized access.

In addition to smart phones, laptops, and tablets, Wi-Fi 6 will connect more devices in the classroom, including smart watches, gaming consoles, Kindle, Echo, scan markers, and even bandwidth-intensive interactive learning experiences such as AR/VR headsets.

3. Hospitality

When arriving at a hotel, one of the first things a guest is likely to ask for is the Wi-Fi password. With so many guest devices accessing the wireless network relentlessly looking for the best local attractions, user account management is just as important as bandwidth allocation to keep them reliably connected with seamless handoffs when moving from their room to the downstairs bar, or even to the outdoor pool. For temporary restricted network access, front desk attendants can print vouchers for non-resident guests, granting network access only within a limited time and usage speed to preserve bandwidth, ensuring high quality of service for paying resident guests.

4. Retail/SMBs

Retail businesses often have multiple locations and individual network maintenance across remote sites will be very time consuming and costly. Businesses should have an efficient centralized platform for remote network management to ensure services such as POS (Point of Sale) terminals, customer service kiosks, and captive portals remain operational to enhance shopper experience. Network downtime can incur significant losses as well as have a negative impact on customer loyalty.

With the arrival of Wi-Fi 6, user experience will be considerably improved across most business scenarios and each will have varying network infrastructures with different application needs. But one common requirement for business networks of any size is the need for an effective management solution to achieve optimised network performance and reliability, which can only be accomplished through real-time monitoring and efficient maintenance with a centralised management platform. And D-Link has a range of network management solutions to help you do just that.

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Nuclias Cloud | Nuclias Connect

Cloud managed networking presents the opportunity for businesses to decrease the complexity of deploying and managing the networks they now need. What are the challenges that businesses are faced with traditional network infrastructure, the rise of complexity, and why cloud network management could be the right choice for a range of businesses?

Many organizations aiming to handle additional network strains and cut cost and complexity are looking towards cloud-based network management. Put simply, cloud network management allows a business to centralize its network management for multiple locations through a web interface to a tool they run in a third-party hosted environment, or via a Software-as-a-Service (SaaS) application.

Once core systems are in place, for instance a gateway switch at a branch office or store, the best cloud network management systems enable new devices, such as a wireless access point (AP), to be provisioned, managed, secured and maintained remotely without any IT personnel needing to visit the site.

Nuclias Cloud

Find Out More

Nuclias Connect

Find Out More

D-Link

Simple, Feature-rich
Cloud Networking, As It Should Be.

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Cloud Networking Solution

✔ Zero-touch Deployment   ✔ Hassle-free Management   ✔ Unlimited Scalability

These benefits are particularly useful for businesses with several small locations, such as retailers, food and drink destinations, petrol stations and hotel chains. The ability for a wireless network device to be posted out, clipped into position by an onsite manager, then configured centrally through the cloud-based interface provides huge efficiency benefits for businesses with multiple locations, though limited IT headcount.

RETAILERS

nuclias
connect

HOTELS

BRANCH OFFICES

CORPORATE BUILDINGS

SCHOOLS & UNIVERSITIES
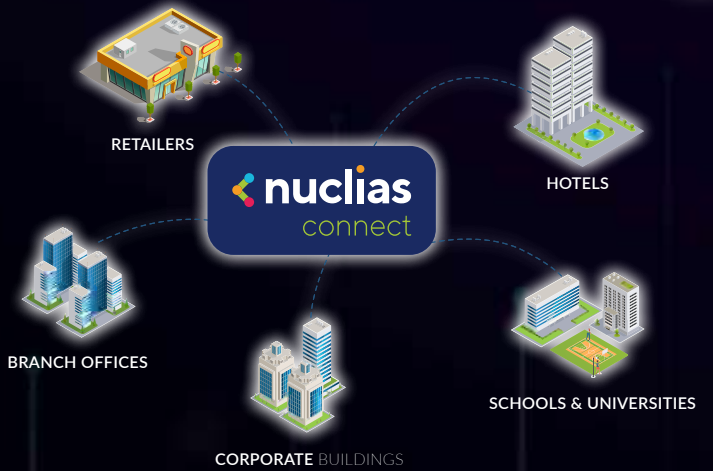
Reporting and analytics

$ Pay-as-you grow Subscription

Zero-touch provisioning

At D-Link, we believe that cloud managed networking is the answer to many of the challenges that MSPs face when servicing multiple local businesses, and the IT teams of mid-sized companies. With our new solution, Nuclias, we're delivering into that sweet spot between the excess feature laden high-end and high effort, low value "budget" solutions currently available. We're delivering the visibility, ease of deployment, automation and security that smaller IT teams and MSPs need on tap to be able to do more with less, while future proofing their networks - all at a price pointthat is delivers demonstrable ongoing value.

Nuclias offers truly zero touch provisioning. Access points can be shipped from stock without the IT team needing to pre-configure them – a significant time saving on initial deployment and a boost to service level performance when damaged equipment needs rapid replacement.

Being 100% a cloud based SaaS, Nuclias is highly accessible and offers transparent pricing – no hidden costs or separate bills for cloud hosting and configuration. The service is built on a platform that already supports more than five million devices, backed by a 24/7 multi time zone customer support service.

Designed from the outset for multi-tenant support, Nuclias ensures compliance with the latest data protection and privacy regulations – user traffic is not sent via the cloud service, and security is assured with out-of-band, SSL-encrypted management plane backed with 99.99% uptime service level agreement.

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D-Link Network Management Solutions

Digital Transformation is essential to how business is done, and how business is won, and your business needs a stable wireless connectivity foundation on which to build capabilities and competencies in the Internet of Things (IoT), Cloud Operations, and Data-Driven Decision-making. D-Link has been setting the standard in business network infrastructure for over 30 years, partnering with companies at every stage of the growth journey, from home office to multinational, listening to their needs and delivering solutions tailored to every IT budget, and level of IT networking expertise — from novice to expert.
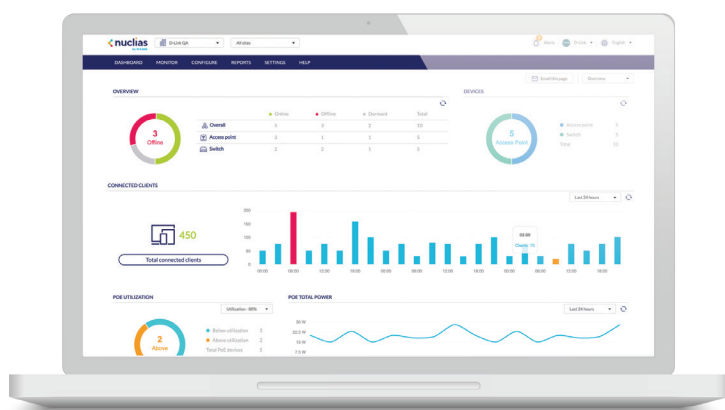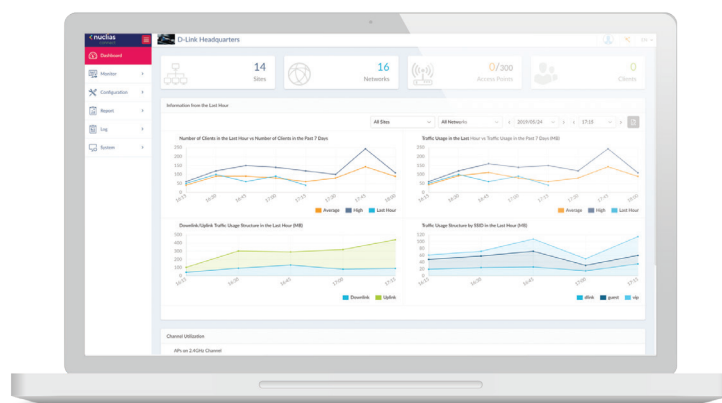
Nuclias Cloud

Nuclias Cloud is a complete solution for Medium-to-Large Enterprises and corporates that don't need or understand, and can't afford a complex IT solution; who want something that stays largely out of the way, and just works. With the Nuclias Cloud Platform, all admin tasks are handled through the Cloud (via Web Browser or App), enabling easy management of remote sites anywhere in the world, while enabling plug-&-play (Zero-Touch) network device deployment, with unlimited scalability. With the technical barriers to expansion removed, and with our 99.9% Service-Level Agreement (SLA) with service continuity backup, Nuclias Cloud removes the hassle & distraction from IT network ownership, so that you can focus on your business.

Nuclias Connect

Nuclias Connect is a network management solution for people that prefer a hands-on approach to IT administration and data ownership. It is a software-based solution that enables enterprise-wide network management, at an SMB price. It is comprised of free-to-download management software, license-free Access Points and Switches (up to 1,800), and an inexpensive optional hardware controller complete the offering. The user interface is simple & intuitive, enabling at-a-glance insights across your entire network, and easy automation and reporting, while delivering backwards compatibility with D-Link Access Points already on the market.*

‹ nuclias

Network management, refreshed.

Automate, monitor, manage and scale your network without the complexity or cost.

D-Link

Different Solutions for Your Business Needs
Nuclias Cloud vs Nuclias Connect

Find Out More

	‹ nuclias cloud	**‹ nuclias** connect
Controller Type	Cloud-Based	Software Controller DNC-100 | Hub Controller DNH-100
Scalability (Standard)	Unlimited	Software Controller (up to 1,500) & Hub Controller (up to 100)
Solution Scope	Complete Solution including APs, Switches, PoE and WAN Gateway	Customizable SW / Hub Controller with APs, Switches and PoE
Legacy Device Compatibility	No	Yes (Selected Devices)
Ease of Deployment	Zero-Touch & Tablet App ● ● ● ● ●	App & Desktop-based Configuration ● ● ● ● ○
User-Friendly Interface	Yes	Yes
Technical Expertise Req'd	Low	Low-Moderate
Performance	● ● ● ● ●	● ● ● ● ●
Target Audience	Medium to Large Enterprises | Global, Nationwide and Multi-site	Corporates and Small to Medium Enterprises | Nationwide and Multi-site
Pricing	Pay-as-you-Go (Yearly Licensing Fee)	Free Software

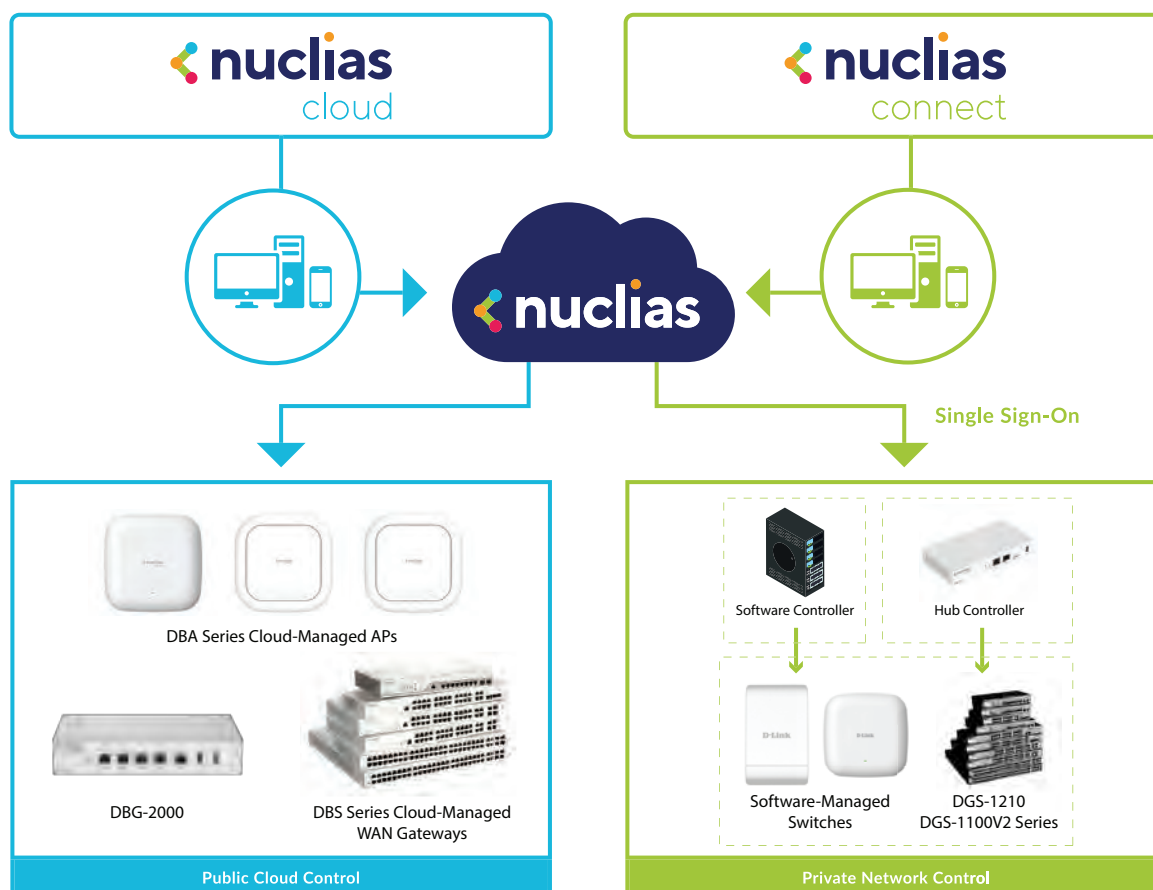**D-Link**

D-Link Nuclias: Built for the Future

Moving toward the next manageable wireless network era, every company needs a robust Wi-Fi Network Management Solution that can comfortably support the Internet of Things (IoT), data-driven operations, and an increasingly Cloud-based workload. Large enterprises, with their complex IT demands and dedicated technical staff, are well positioned to do this using standard Wireless Controller-based infrastructure. But Small-to-Medium Businesses (SMBs) can find such solutions geeky and impractical, especially if they have multiple sites to cover. They need something simpler, more user-friendly, and more centralized. Enter Nuclias centralized SMB network management solutions, by D-Link, which minimize the time, money, effort, and resources consumed by professional-grade wireless infrastructure. They're built for your present, with an eye on your future.

Nuclias Cloud: Power & Simplicity

Our Nuclias Cloud solution reduces the frustrations and resources of network management by moving it to the Cloud, which greatly expands the power and reach of any organization. Administration can be done for any site or device (Switches, Access Pointsand WAN Gateways), from anywhere in the world. By eliminating the technical barriers to expanding your network, adding a device in any remote location is no more technically burdensome than adding a device centrally. Administration can be done via Web Browser or dedicated App, anywhere with an online connection. Nuclias Cloud provides a tremendous degree of control, while eliminating additional workload for in-house IT personnel (via Zero-Touch Deployment), delivering an easy, low-fuss path to business transformation and centralized management.

Nuclias Connect: Value & Privacy

Nuclias Connect is designed for any organization looking to configure and manage their wireless infrastructure on-premises using existing resources such as (servers/PC) or dedicated onsite appliance (the Hub), for cost or privacy reasons. Nuclias Connect facilitates a greater degree of user-friendly centralized control than traditional Wireless Controllers permit while balancing the functionality needs of many businesses for privacy. By eliminating the need for additional software licensing, an SMB or MSP can build a single virtual network (composed of up to 1,800 devices) across different sites and geographies. Nuclias Connect also allows network deployment decisions to be driven more by need, and less by cost, while its intuitive dashboard makes it easier to understand the challenges facing your network and its users.

DBA Series Cloud-Managed APs

DBG-2000

DBS Series Cloud-Managed WAN Gateways

Public Cloud Control

Single Sign-On

Software Controller

Hub Controller

Software-Managed Switches

DGS-1210 DGS-1100V2 Series

Private Network Control

WI-FI 6

nuclias
cloud

Complete cloud-managed networking solution for small to large-sized organisations with one or more sites.

Cloud-Managed Access Points Now with Wi-Fi 6

With next-generation Wi-Fi 6 dual-band concurrent 2.4 GHz and 5 GHz radios, the DBA Business Cloud Access Points are best-in-class indoor and outdoor access points designed specifically for enterprise environments.

Offering high combined data rates to wireless clients and designed as a zero-configuration, pre-managed access point for the Nuclias cloud, DBA Business Cloud Wi-Fi 6 access points allow for High density lightning-fast access to bandwidth-intensive applications such as data, voice, and video streaming concurrently.

DBA Business Cloud Wi-Fi 6 Access Point Highlights:

D-Link Wi-Fi 6 AC Access Point

- Up to 3600 Mbps with 4 x 4 MU-MIMO with four spatial streams
- Supports MU-MIMO (download & upload), beam forming and load balancing
- Supports OFDMA • 1024 QAM • TWT - Target Wake Time • BSS Colouring

Simplified deployment, enabling installation into an existing network infrastructure

- Integrates Multi-gig 2.5Gbps PoE Ethernet LAN port
- Zero-touch provisioning, AP can be provisioned before deployment

Revolutionary Energy Efficiency

- Innovative D-Link Green features helps conserve energy without affecting performance

D-Link

Nuclias Cloud: Cloud-Managed Access Points

	Model	DBA-1210P	DBA-1520P	DBA-2520P	DBA-2620P	DBA-2720P	DBA-2820P	DBA-X1230P	DBA-X2830P	DBA-3620P	DBA-3621P
	Product Image							WI-FI 6	WI-FI 6		
General	Environment	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Outdoor	Outdoor
	IEEE Standard	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac/ax	IEEE 802.11a/b/g/n/ac/ax	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac
	WiFi Speed	AC 1300	AC 1750	AC 1900	AC 1300	AC 2100	AC 2500	AX1800	AX3600	AC 1300	AC1300
	2.4 GHz Speed	400Mbps	450Mbps	600Mbps	400Mbps	400Mbps	800Mbps	575Mbps	1147Mbps	400Mbps	400Mbps
	5 GHz Speed	867Mbps	13007Mbps	1299Mbps	867Mbps	867Mbps+ 867Mbps	1733Mbps	1200Mbps	2402Mbps	867Mbps	867Mbps
Functionality	Number of SSIDs	16 per device 8 per band	16 per device 8 per band	16 per device 8 per band	16 per device 8 per band	24 per device 8 per band	16 per device 8 per band	16 per device 8 per band	16 per device 8 per band	16 per device 8 per band	16 per device 8 per band
PoE	PoE Budget	802.3af	802.3at	802.3at	802.3at	802.3at	802.3at	802.3at	802.3at	802.3at	802.3at
Physical	Ethernet Interface	1 x 10/100/1000 Ethernet Port with PoE	1 x 10/100/1000 Ethernet Port with PoE	2 x 10/100/1000 Ethernet Ports with PoE (1 only)	2 x 10/100/1000 Ethernet Ports with PoE (1 only)	2 x 10/100/1000 Ethernet Ports with PoE (1 only)	2 x 10/100/1000 Ethernet Ports with PoE (1 only)	1 x 10/100/1000 Ethernet Ports with PoE	1 x 10/100/1000/2500Mbps Ethernet port with PoE; 1 x 10/100/1000 Mbps Ethernet port	2 x 10/100/1000 Ethernet Ports with PoE	1 x 10/100/1000 Mbps Ethernet Ports with PoE
Technical Specification	Max Output Power	2.4GHz: 20dBm 5GHz: 20dBm	2.4GHz: 22dBm 5GHz: 26dBm	2.4GHz: 25dBm 5GHz: 25dBm	2.4GHz: 26dBm 5GHz: 26dBm	2.4GHz: 26dBm 5GHz: 26dBm	2.4GHz: 26dBm 5GHz: 26dBm	2.4GHz: 23dBm 5GHz: 22dBm	2.4GHz: 29 dBm 5GHz: 28 dBm	2.4GHz: 26dBm 5GHz: 26dBm	2.4GHz: 26dBm 5GHz: 26dBm
	Antenna	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional (Optional External Antenna)	External Omnidirectional
	Mounting Type	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Wall/Pole
	Security Lock	Yes		Yes	Yes	Yes	Yes	Yes			
	IEC60601-1-2			Yes	Yes	Yes	Yes		Yes	Yes	

*Please contact your local D-Link office for availability.

D-Link

Nuclias Cloud Switches

The Nuclias Cloud-Managed Switches offer a robust set of Layer 2 and Layer 2+ features designed to support the most demanding applications.

Extensive range to meet the networking needs of businesses of all sizes with a range of port configurations from 10-52 ports. L2/L2+ features help to optimise and improve network efficiency. Optional PoE models that support PoE/PoE+ with high PoE power budgets. Combo fibre ports provide additional flexibility on choice and distance the switches can be connected.

D-Link Switch Highlights:

- Simultaneous/scheduled firmware upgrade and configuration push
- Customisable network reports
- Alert when a switch or port goes offline
- Switches can be configured through the Nuclias cloud-platform for:
  - IPv4 ACL for network resource management and control
  - Access policies for port/MAC-based network security
  - Port scheduling allows you to enable/disable port based on time schedule
  - Switch port configuration including VLAN, role, PoE, mirroring

Cloud-Managed Smart Gigabit Switches

	MODEL	DBS-2000-10MP	DBS-2000-28	DBS-2000-28P	DBS-2000-28MP	DBS-2000-52	DBS-2000-52MP
HARDWARE	Number of Gigabit ports	8	24	24	24	48	48
	Number of Combo 1000BASE-T/SFP ports		4	4	4	4	4
	Number of SFP ports	2					
	Switching capacity	20 Gbps	56 Gbps	56 Gbps	56 Gbps	104 Gbps	104 Gbps
	PoE standards	802.3af, 802.3at		802.3af, 802.3at	802.3af, 802.3at		802.3af, 802.3at
	PoE power budget	130 W		193 W	370 W		370 W
	PoE capable ports	Ports 1-8, up to 30 W		Ports 1-24, up to 30 W	Ports 1-24, up to 30 W		Ports 1-48, up to 30 W
	Time-based PoE	√	√	√	√	√	√
	Fanless	√	√			√	
	802.3az EEE	√	√	√	√	√	√
	Power supply type	Internal	Internal	Internal	Internal	Internal	Internal
L2	MAC address	8K	8K	8K	8K	16K	16K
	802.1D STP, 802.1w RSTP	•	•	•	•	•	•
	802.3ad link aggregation	•	•	•	•	•	•
VLAN	VLAN group (max static)	256	256	256	256	256	256
	Port-based VLAN, Voice VLAN	√	√	√	√	√	√
SECURITY	SSL	√	√	√	√	√	√
	ACL	√	√	√	√	√	√
	Port security	√	√	√	√	√	√

* Coming soon

D-Link

Nuclias Cloud Business Gateway

Cloud Business Gateway for a complete Nuclias solution

Centralized control functionality to securely and intelligently direct traffic across the WAN & Support intuitive Site-to-Site VPN, Application identification and control, and Web Content Filtering for secure connections.

Software-defined solutions are evolving network operations in this era of digital transformation, D-Link Nuclias Cloud Business solution helps IT administrators to simplify branch network deployment. With the variety of optimization design for internet connectivity and allows enterprises to leverage any combination of transport services – including MPLS, LTE and broadband internet services – to securely connect users to applications.

DBG-2000
Cloud-Managed Business Gateway

- x86 Quad-cores CPU
- DDR3 2GB memory
- 4*10/100/1000Mbps ports, 2* USB ports, 1 RJ-45 console port
- Firewall/NAT throughput: 1.8Gbps
- IPsec VPN throughput:450Mbps, IPsec VPN tunnel: 100
- SSL VPN throughput: 200Mbps
- Current session: 200,000
- Multiple WAN/Configurable interfaces
- DPI Firewall
- VPN Server/Client for secure communications
- PPPoE/PPTP/L2TP/DHCP
- Bandwidth Management
- Static/Policy-based routing
- VLAN for network segmentation
- Application identification/Control
- Web Content Filtering
- IDP (Intrusion Detection & Prevention)

DBG-X1000
Cloud-Managed Wi-Fi 6 Business Gateway

- x86 Quad-cores CPU
- 802.11ax 2*2 dual band (AX1800)
- 1* WAN GbE port, 3*LAN GbE port, 1* LAN/WAN configurable GbE port, 1* USB port, 1*RJ45 console port
- Firewall/NAT throughput: 950Mbps
- IPsec VPN throughput: 150Mbps, IPsec VPN tunnel: 50
- SSL VPN throughput: 50Mbps
- Current session: 50,000
- Multiple WAN/Configurable interfaces
- DPI Firewall
- VPN Server/Client for secure communications
- PPPoE/PPTP/L2TP/DHCP
- Bandwidth Management
- Static/Policy-based routing
- VLAN for network segmentation
- Application identification/Control
- Web Content Filtering
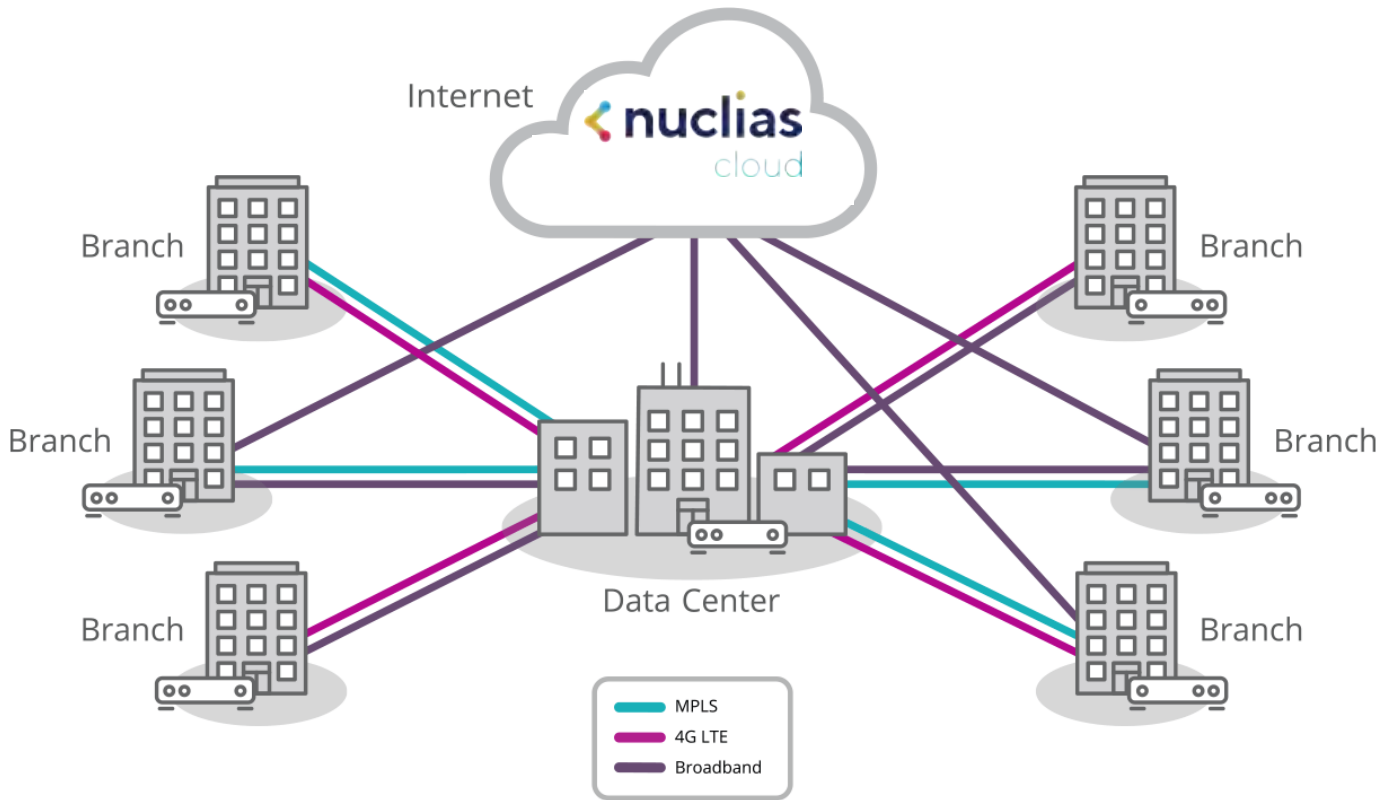- IDP (Intrusion Detection & Prevention)

Nuclias Cloud Architecture

Internet

nuclias
cloud

Branch

Branch

Branch

Branch

Branch

Branch

Data Center

Branch

Branch

MPLS
4G LTE
Broadband

Offload time-consuming
administrative functions

Interoperate with your
other WAN services

Avoid vendor lock-in
to a particular hardware
or technology

Get Real-time visibility
and control of your
entire network

Move to a dynamic
network architecture

Take advantage of multiple
managed connection types

Achieve reliability and
speed to deployment

Cost efficiencies

Centrally manage all switches,
routers, firewalls and load balancer

NUCLIAS CONNECT

Nuclias Connect is the ideal centralised network management solution for Small-to-Medium Enterprises (SME) and corporate networks. Nuclias Connect makes it easier to analyse, automate, configure, optimise, scale, and secure a network – delivering the convenience of an Enterprise-grade management solution, at the affordable price.

Customize and secure your network, intuitively

Nuclias Connect is a solution that makes your network easier to manage, easier to configure, and easier to expand. It empowers your network administrators through its centralized control, configuration, and customization capabilities, while minimizing their onsite workload. Nuclias Connect analytics provide an understanding of network and its usage that is robust and intuitive, while minimizing your upfront investment through its legacy compatibility and free-to-download software – it's maximum control with minimum hassle.

Who Needs Nuclias Connect?

SME and Corporates

Connect offer a robust yet affordable foundation for corporates and SME's who acknowledge the need for Digital Transformation in order to stay competitive. Especially designed for those business that need fine-grained control over their network, as well as the ability to customize as to best meet their businesses unique needs.

Hospitality

Create a secure and easy to access wired (switches) and Wi-Fi environment with features such as a customizable captive portal to enable multi-channel marketing. Real time traffic and analytics, virtualized floor maps and mapping of customer foot-print gives deeper insights and aids you to better understand guest behaviors.

Retail Chains

Real time traffic analytics and insights help you tailor your customers Wi-Fi experience and further drive sales. Features such as customizable captive portal maintain secure and easy to access Wi-Fi and also enables multichannel marketing. Meanwhile, a powerful PoE (Power-over-Ethernet) can simplify the deployment of advanced surveillance, smart sensors / alarms, access control, digital signage and point of sale (POS) devices for Smart Retail.

Education

Connect offers versatile deployment and support for multiple campuses. Network enhancing features such as airtime fairness and channel optimization that enables stable digital collaboration. Web content filtering and application control protects staff and students alike. Resource intensive applications such as digital white boards or surveillance are supported.


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nuclias connect

Nuclias Connect for MSPs

Nuclias Connect allows network administrators to do their jobs far more effectively and efficiently. Network expansion and configuration are easier, more intuitive, and more cost-effective thanks to centralized control. Privilege-Based Access Control allows managed access, avoiding accidental or malicious misconfigurations.
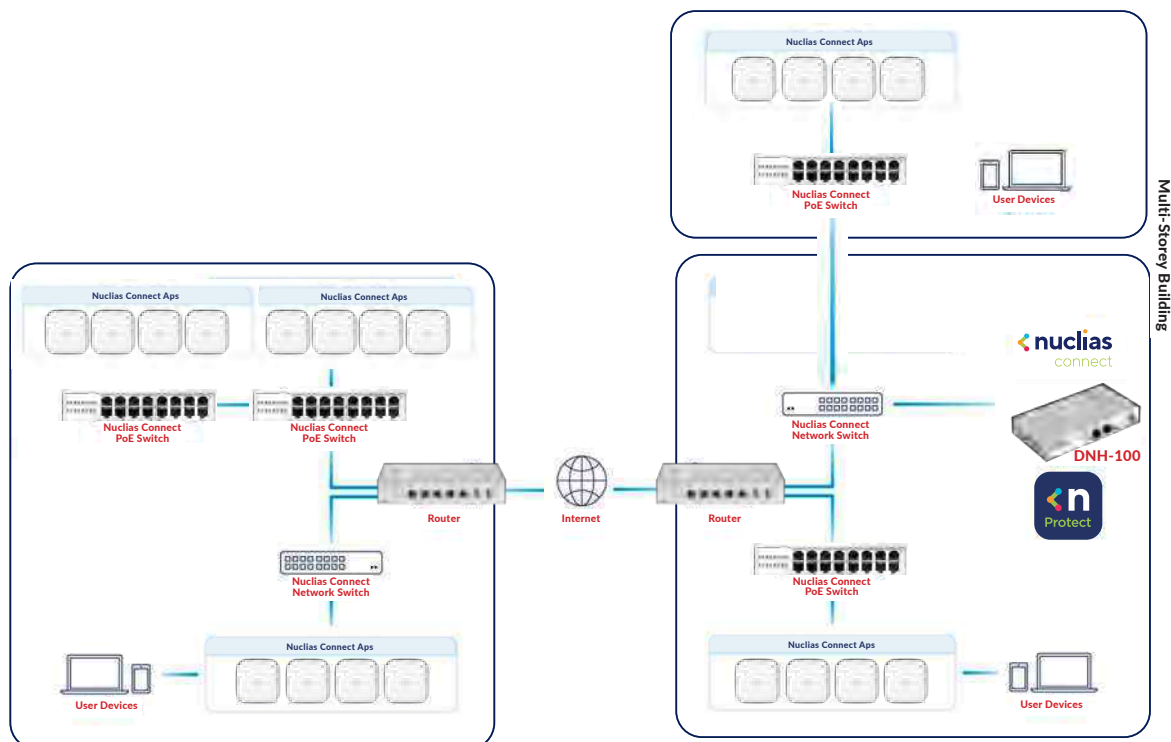
Multi-Site Nuclias Connect deployment

(Up to 1,800* wireless access points and switches)
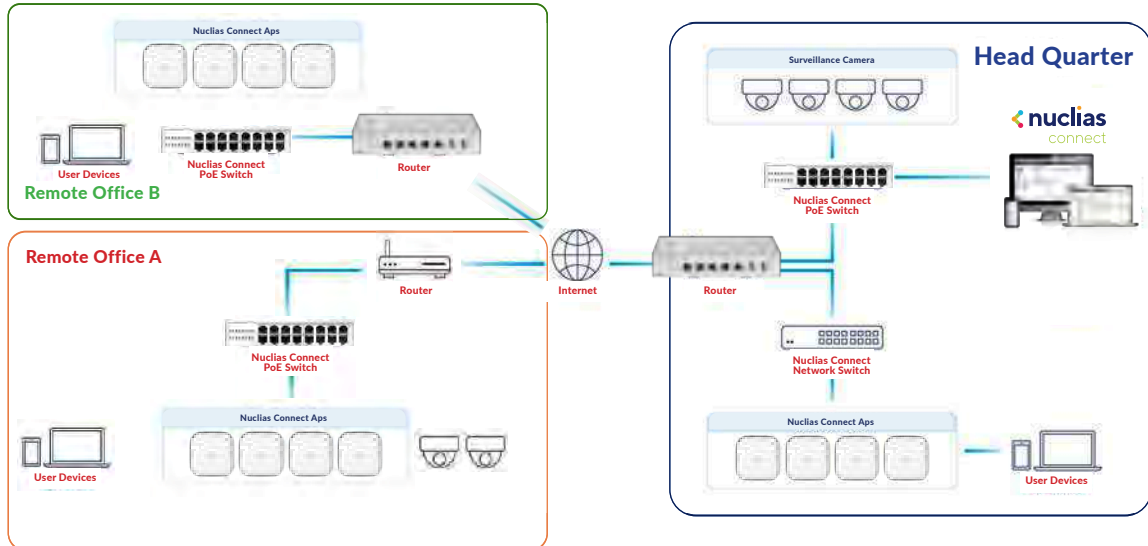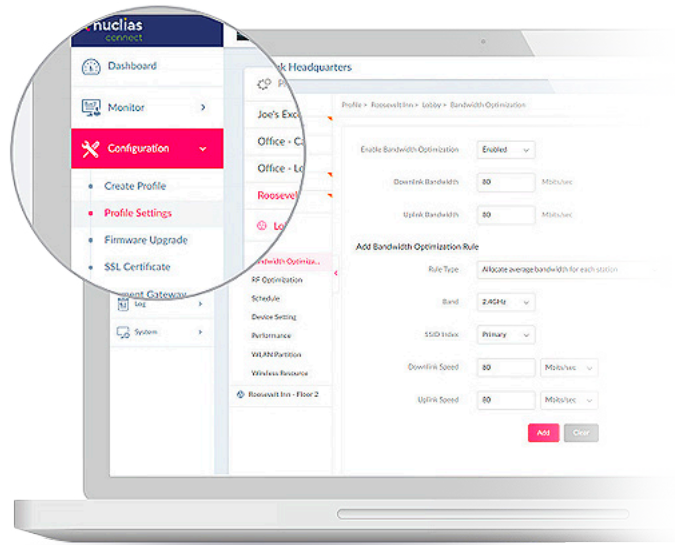

Medium-sized Nuclias Connect deployment

(Up to 200* wireless access points and switches)

* Maximum number of managed devices is subject to hardware configuration of the server, user environments and settings of the devices.

D-Link

Value

- Free downloadable Nuclias Connect Software Controller (DNC-100)
- Free license for Access Points and Switches
- Cost-effective Hub Controller (DHH-100)
- Up to 1,500 managed Nuclias Connect Access Points and Switches
- DGS-1210 & DGS-1100V2: Nuclias Connect support with free firmware upgrade

Flexibility
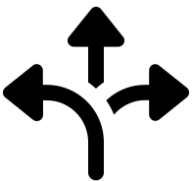
- Suitable for single or multi-site businesses across various industries
- Support wide range of Access Points, Data and PoE Switches
- Highly customizable dashboard of reporting and analytics
- Network management from anywhere at anytime

Real-time Analytics and Reporting

- Comprehensive traffic analytics and status reports
- Visibility of the networks enables actionable intelligence by the businesses
- Easy troubleshooting with insights into users and devices' physical interfaces

nuclias connect

Hotels

Schools

Retail

Offices

Security and Privacy

- Encrypted communications over Nuclias Connect
- User data is stored locally in Software or Hub Controller
- Work with firewalls with enhanced security

Ease-of-Use

- Intuitive dashboard functionality
- Centralized configuration with maximum accuracy
- Support batch configuration, automated reporting, searchable logs
- Versatile authentication options (Captive Portal, RADIUS, POP3, LDAP, AD)

Nuclias Connect Apps

Monitor and manage the remote networks on iOS and Andriod mobile devices

Timely Network Monitoring

Remote Troubleshooting

Easy Reporting

Download on the App Store

GET IT ON Google Play

Nuclias Connect

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connect

Key Features of Nuclias Connect (DNC-100 and DNH-100)

Free-to-Download Management Software	Inexpensive Hardware Controller	Searchable Event Log and Change Log
License-Free Access Points	Traffic Reporting & Analytics	Authentication via Customizable Captive Portal, 802.1x and RADIUS Server, POP3, LDAP, AD
Backwards Compatibility	Remote Config. & Batch Config.	Multilingual Support
Intuitive Interface	Multi-Tenant & Role-Based Administration	Payment Gateway (Paypal) Integration and Front-Desk Ticket Management

Nuclias Connect Hub Controller
(DNH-100)

A compact and cost-effective Hub Controller with built-in Nuclias Connect software server

- Manage up to 100 Wireless Access Points (APs) and Switches
- Fully equipped with a Gigabit LAN Port, a USB 3.0 Port, and a Micro SD Slot
- Auto managed frequency bands and L2/L3 AP discovery with the best wireless coverage
- Greater control with multiple VLANs and SSID management
- Single Sign-On
- Command Line Interface (CLI) support
- NAT Passthrough for multi-site deployment

* Available Q4, 2019

D-Link

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connect

A free network management software with robust functionality, highly scalable, and end-to-end control.

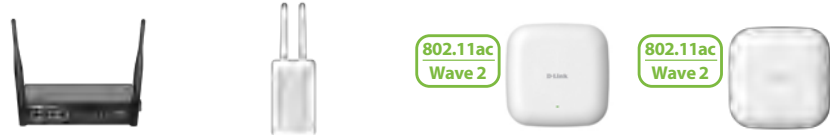|	MODEL	DIS-2650AP	DIS-3650AP	DAP-2610	DAP-2662
HARDWARE	Hoptspot 2.0 compatible				•
	Wireless standards	Simultaneous a/n/ac (Wave 2) and b/g/n	Simultaneous a/n/ac (Wave 2) and b/g/n	802.11n | 11ac Wave 2	Simultaneous a/n/ac and b/g/n
	Wireless	2.4 to 2.4835 GHz 5.15 to 5.875 GHz	2.4 to 2.4835 GHz 5.15 to 5.875 GHz	AC1200 (AC Lite)	802.11n | 11ac Wave 2
	Maximum wireless speed	867 Mbps - 5 GHz 300 Mbps - 2.4 GHz	867 Mbps - 5 GHz 300 Mbps - 2.4 GHz	867 Mbps - 5 GHz 400 Mbps - 2.4 GHz	AC1200 (AC Long Range LR)
	MIMO	• (MU-MIMO)	• (MU-MIMO)	• (MU-MIMO)	•
	Antenna type	2 external omni-directional	2 external omni-directional	2 embedded omni-directional	4 embedded omni-directional
	Antenna gain	2.5 dBi for 2.4GHz 3 dBi for 5GHz	3 dBi for 2.4GHz 5 dBi for 5GHz	3 dBi for 2.4GHz 3 dBi for 5GHz	3 dBi for 2.4GHz 4 dBi for 5GHz
	Power-over-Ethernet (PoE)	• (802.3at)	• (802.3at)	• (802.3af)	• (802.3af)
	Wired interface	2 x Gigabit 1 GE PoE + 1 GE	1 x Gigabit	1 x Gigabit	1 x Gigabit
	High Power	•	•		•
	Type of housing	Metal	Metal	Plastic	Plastic
	Outdoor housing (IP rating)	IP3X, DC IN design	IP67		
WIRELESS	Maximum number of SSIDs	16	16	16	16
	Multiple modes (AP, WDS with AP, WDS / bridge, client)	•	•	•	•
	WMM-PS/802.11e (U-APSD)	•	•	•	•
	Wi-Fi scheduler	•	•	•	•
	AP traffic load balance	•	•	•	•
	L2 roaming	•	•	•	•
SECURITY	WEP/WPA/WPA2-Per./Ent.	•	•	•	•
	TKIP/AES encryption	•	•	•	•
	WLAN partition, Station Isolation	•	•	•	•
	SSID broadcast disable	•	•	•	•
	MAC address filtering	•	•	•	•
	802.1X authentication	•	•	•	•
NETWORK	DHCP server	•	•	•	•
	802.1D STP, IGMP snooping, ARP spoofing, SNTP	•	•	•	•
	IPv6	•	•	•	•
MANAGEMENT	WEB	•	•	•	•
	SNMP (v1, v2c, v3)	•	•	•	•
	CLI, Telnet, SSH	•	•	•	•
	Syslog	•	•	•	•
	Central management through **Nuclias Connect***	•	•	•	•

DAP-2680	DAP-2682	DAP-X2810	DAP-X2850	DAP-3666	DAP-2620	DAP-2622
				●		
Simultaneous a/n/ac (Wave 2) and b/g/n	Simultaneous a/n/ac and b/g/n	Simultaneous a/n/ac/ax and b/g/n	Simultaneous a/n/ac/ax and b/g/n	Simultaneous a/n/ac and b/g/n	Simultaneous a/n/ac (Wave 2) and b/g/n	Simultaneous a/n/ac and b/g/n
802.11n | 11ac Wave 2	802.11n | 11ac Wave 2	802.11AX Full OFDMA	802.11AX Full OFDMA	802.11n | 11ac Wave 2	802.11n | 11ac Wave 2	802.11n | 11ac Wave 2
AC1750 (AC PRO)	AC2300 (AC High Density HD)	AX1800	AX3600	AC1200 (Outdoor)	AC1200 (Outdoor)	AC1200 (Outdoor)
• (MU-MIMO)	• (MU-MIMO)	• (MU-MIMO)	• (MU-MIMO)	•	• (MU-MIMO)	300 Mbps - 2.4 GHz
3 embedded omni-directional	4 embedded omni-directional	4 embedded omni-directional	4 embedded omni-directional	4 embedded omni-directional	2 embedded omni-directional	.(MU-MIMO)
3.6 dBi for 2.4GHz 4.2 dBi for 5GHz	4 dBi for 2.4 GHz 6 dBi for 5 GHz	3 dBi for 2.4 GHz 4 dBi for 5 GHz	3.5 dBi for 2.4 GHz 5.5 dBi for 5 GHz	6 dBi for 2.4GHz 6 dBi for 5GHz	3.4 dBi for 2.4GHz 4.22 dBi for 5GHz	"2 embedded omni-directional"
• (802.3at)	• (802.3at)	• (802.3at)	• (802.3at)	• (802.3af)	• (802.3af)	2 dBi for 2.4 GHz 2 dBi for 5 GHz
1 x Gigabit	2 x Gigabit	1 x Gigabit	1 x 2.5 Gbps LAN (PoE), 1 x Gigabit	2 x Gigabit	1 x Gigabit	(802.3at)
	•	•	•	•		1 x Gigabit (PoE In) 1 x Gigabit (PoE Out) 1 x Gigabit
Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	.
				• (IP68)		Plastic
16	16	16	16	16	16	16
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
•	•	•	•	•	•	•
	•	•	•	•	•	•
	•	•	•	•	•	•

* Compatibility with Nuclias Connect through firmware update.

D-Link

Nuclias Connect Switches:
DGS-1210(HW:F) & DGS-1100V2
Revamp your corporate networks with Nuclias Connect

DGS-1210 (HW: F) Series
L2+ Smart Gigabit Switches

LAYER 3

• Static and Inter-VLAN Routing

PERFORMANCE

• VLAN | QoS
• Link Aggregation (LACP)
• Auto Surveillance and Voice VLAN
• Up to 16K MAC Address Table

SECURITY

• Access Control List (ACL)
• IP-MAC-Port Smart Binding (IMPB)
• D-Link Safeguard Engine

REDUNDANCY

• Dual Software Images
• Dual Configuration Files

MANAGEMENT

• Nuclias Connect | SNMP
• CLI | Web GUI
• Surveillance Mode (for PoE)

DGS-1100V2 Series
L2 Smart Gigabit Switches

PoE++

• 802.3bt 90W

PERFORMANCE

• VLAN | QoS
• Link Aggregation (LACP)
• Auto Surveillance and Voice VLAN
• Up to 8K MAC Address Table

SECURITY

• D-Link Safeguard Engine

REDUNDANCY

• Nuclias Connect | SNMP
• Web GUI

D-Link

Nuclias Connect Smart L2+ Gigabit Switches: DGS-1210 (HW:F)
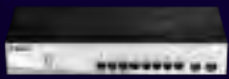
DGS-1210-10

8-Ports 10/100/1000Mbps
+ 2-Ports 100/1000M SFP

DGS-1210-20

16-Ports 10/100/1000Mbps
+ 4-Ports Combo GE/SFP

DGS-1210-26

24-Ports 10/100/1000Mbps
+ 2-Ports 100/1000M SFP

DGS-1210-28

24-Ports 10/100/1000Mbps
+ 4-Ports Combo GE/SFP

DGS-1210-52

48-Ports 10/100/1000Mbps
+ 4-Ports Combo GE/SFP

DGS-1210-10P

Port Count:
8-Ports 10/100/1000Mbps
 PoE + 2-Ports SFP
100/1000Mbps
PoE Port/Budget:
Port 1~8 (802.3af/at)/
65Watts
Power:
External power adapter
54V/1.57A

DGS-1210-10MP

Port Count:
8-Ports 10/100/1000Mbps
PoE + 2-Ports SFP
100/1000Mbps
PoE Port/Budget:
Port 1~8 (802.3af/at)/
130Watts
Power:
Internal PSU

DGS-1210-28P

Port Count:
24-Ports 10/100/1000Mbps
PoE + 4-Ports Combo GE/SFP
PoE Port/Budget:
Port 1~24 (802.3af/at)/
193Watts
Power:
Internal PSU

DGS-1210-28MP

Port Count:
24-Ports 10/100/1000Mbps
PoE + 4-Ports Combo GE/SFP
PoE Port/Budget:
Port 1~24 (802.3af/at)/
370Watts
Power:
Internal PSU

DGS-1210-52MP/MPP**

Port Count:
48-Ports 10/100/1000Mbps
 PoE + 4-Ports Combo GE/SFP
(52MP)
4-Ports SFP (52MPP)
PoE Port/Budget:
Port 1~48 (802.3af/at)/
370Watts (52MP)
740Watts (52MPP)
Power:
Internal PSU

52MPP** - does not support Nuclias Connect

Nuclias Connect Smart L2 Gigabit Switches: DGS-1100V2

Cost-effective 802.3bt 90W PoE++ Switches

DGS-1100-10MPV2

Port Count:
8 GE PoE + 2 SFP
Fan:
1 Smart Fan
802.3af/at (15.4W, 30W):
Port 1 ~ 8
PoE Power Budget:
130W

DGS-1100-10MPPV2

Port Count:
8 GE PoE + 2 SFP
Fan:
1 Smart Fan
802.3af/at (15.4W, 30W) :
Port 1 ~ 8
802.3bt (90W):
Port 7 ~ 8
PoE Power Budget:
242W

DGS-1100-26MPV2

Port Count:
24 GE PoE + 2 GE/SFP Combo
Fan:
1 Smart Fan
802.3af/at (15.4W, 30W):
Port 1 ~ 24
PoE Power Budget:
370W

DGS-1100-26MPPV2

Port Count:
24 GE PoE + 2 GE/SFP Combo
Fan:
1 Smart Fan
802.3af/at (15.4W, 30W):
Port 1 ~ 24
802.3bt (90W):
Port 21 ~ 24
PoE Power Budget:
525W

DGS-1100-16V2

Port Count:
16 GE
Fan:
Fanless

DGS-1100-18PV2

Port Count:
16 GE PoE + 2 GE/SFP Combo
Fan:
1 Fan
802.3af/at (15.4W, 30W)
Port 1~16
PoE Power Budget:
130W

DGS-1100-24V2

Port Count:
24 GE
Fan:
Fanless

DGS-1100-24PV2

Port Count:
12 GE PoE + 12 GE
Fan:
Fanless
802.3af/at (15.4W, 30W)
Port 1~12
PoE Power Budget:
100W

**D-Link**

Unified WIFI Solution

Lite Wireless solution for your Business

The D-Link Unified WIFI series devices provide a single , Lite solution to configure, manage and support SMB wireless networks, with a range of WIFI 6 and WIFI 5 Access point, Unified WIFI solution is best for SMB, SOHO, Hotel, school and chain store wifi deployment.

Unified WIFI also comes with central management hardware – AC controller which not only provide central wifi management but also gateway which help to reduce deployment cost for new businesses network setup that required gateway. These high capacity wireless controller is ideal for businesses who want to offer services such as voice over Wi-Fi, IP-based video, secure enterprise access and tiered Wi-Fi services in venues.

Multi-WAN gateway with user traffic control
MultiWAN connectivity for multiple ISP, allow load balance & WAN failover. User behavior control can maximize network performance by restricting some application from hogging the network bandwidth

ISP 1   ISP 2   ISP 3
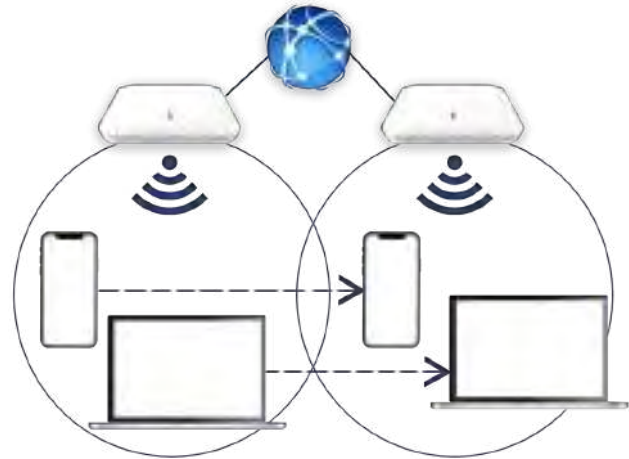
Seamless Roaming

Seamless WiFi Roaming provides a constant connection of the mobile users (smartphones, tablets, laptops) during their movement within the area covered by several access points.

When moving within the WiFi network, client independently selects the most suitable AP based on the signal level, network load and other factors.

Multi Operation Access Point

(Unified Series Access point comes with multiple)

Operation mode, FAT/FIT/ Router mode. For user who doesn't require central management, they can configure it as Standalone AP (AKA FAT Mode) or router mode, for those who needs central management, they can use Easy wifi AC controller to managed multiple APs under FIT mode.

Multiple Operational Mode

Router Mode

AP/FAT Mode

FIT Mode

Application

SMB/Offices/School

Hotel/Hostel

SOHO/Home
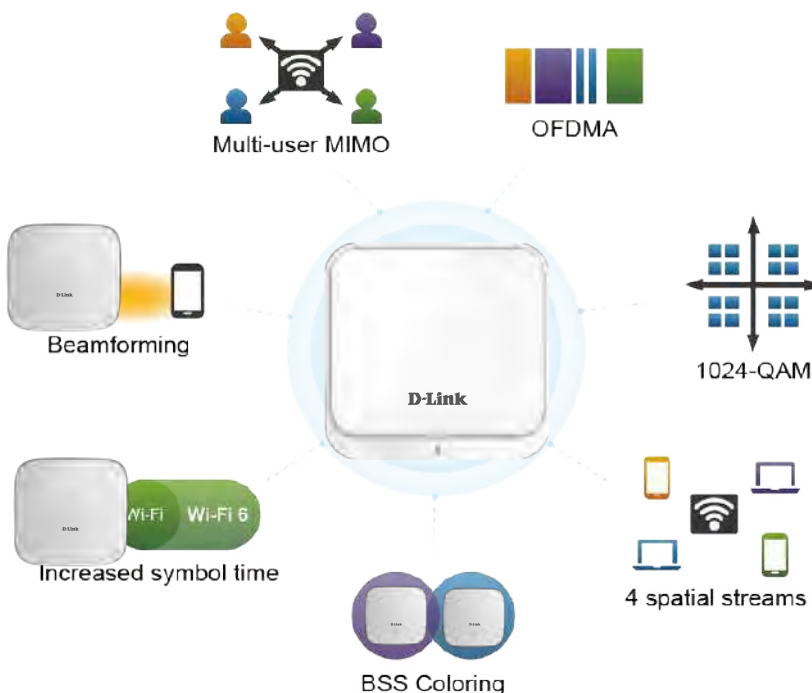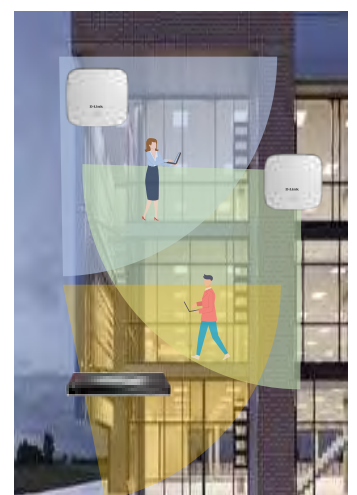
Latest WIFI 6 Technology

WIFI 6 FOR BUSINESS AND HOME OFFICE

The future of WiFi is here. With WiFi 6 Access Points from D-Link Easy WIFI, you get the ultimate speeds and efficiency that you need to make the most out of WiFi 6 devices.

Multi-user MIMO

OFDMA

Beamforming

1024-QAM

Wi-Fi 6
Increased symbol time

4 spatial streams

BSS Coloring

Seamless Roaming with AC

D-Link

Unified WIFI Access Points Series

Wi-Fi 6

AX3600

DAP-X1851F
- Indoor AX3600 (2x2)
- Dual Bands 2.4GHz + 5GHz
- 600Mbps + 1200Mbps
- Dual 2.5GE (LAN + WAN/LAN)
- Support NAT/FAT/FIT Mode
- DL/UL MUMIMO
- OFDMA/BSS Coloring/TWT/1024QAM
- PoE/Power ADP (12V/2A)

AX1800

DAP-X1810F
- Indoor AX1800 (2x2)
- Dual Bands 2.4GHz + 5GHz
- 600Mbps + 1200Mbps
- Dual GE (LAN + WAN/LAN)
- Support NAT/FAT/FIT Mode
- DL/UL MUMIMO
- OFDMA/BSS Coloring/TWT/1024QAM
- PoE/Power ADP (12V/1A)

AX1800

Outdoor IP65

DAP-X1830F
- Outdoor AX1800 (2x2)
- Dual Bands 2.4GHz + 5GHz
- 600Mbps + 1200Mbps
- Dual GE (LAN + WAN/LAN)
- Support NAT/FAT/FIT Mode
- DL/UL MUMIMO
- OFDMA/BSS Coloring/TWT/1024QAM
- IP65 Weatherproof
- PoE/Power ADP(12V/1A)

AX3600

On-Wall PoE Out

DAP-X1825F
- On-wall AX3000 (2x2)
- Dual Bands 2.4GHz + 5GHz
- 600Mbps + 2402Mbps
- 1 GE WAN/LAN PoE In + 1 GE Passthrough (Back)
- 3 GE LAN + 1 GE PoE out + 1 GE Passthrough (Bottom)
- 1 RJ45 Console (Side)
- PoE Out Max 15W
- USB2.0 Port for charging
- Support NAT/FAT/FIT Mode
- DL/UL MUMIMO
- OFDMA/BSS Coloring/TWT/1024QAM
- PoE/Power ADP

AX1800

On-Wall

DAP-X1820F
- On-Wall AX1800 (2x2)
- Dual Bands 2.4GHz + 5GHz
- 600Mbps + 1200Mbps
- 4 GE (3*LAN + WAN/LAN)
- Support NAT/FAT/FIT Mode
- DL/UL MUMIMO
- OFDMA/BSS Coloring/TWT/1024QAM
- PoE/DC input

Unified Access Points Series

Wi-Fi 5

DAP-1610F
- Indoor AC1200 (2x2)
- Dual Bands 2.4GHz + 5GHz
- 300Mbps + 867Mbps
- Dual GE (LAN + WAN/LAN)
- Support NAT/FAT/FIT Mode
- MU-MIMO
- PoE/Power ADP

DAP-1620F
- On-WALL AC1200 (2x2)
- Indoor AC1200 (2x2)
- Dual Bands 2.4GHz + 5GHz
- 300Mbps + 867Mbps
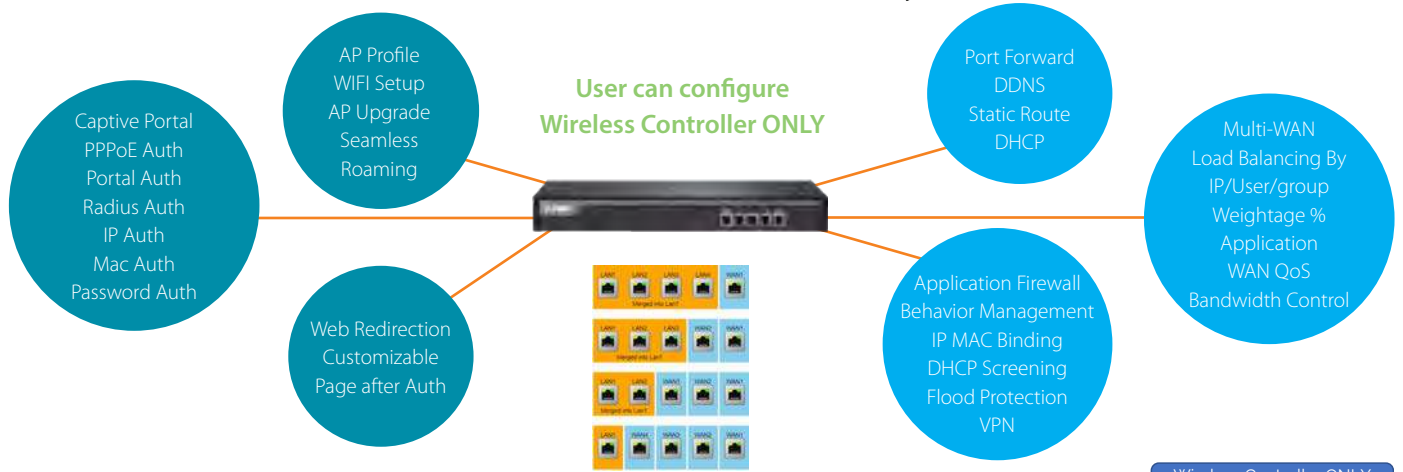- Dual GE (LAN + WAN)
- Support NAT/FAT/FIT Mode
- MU-MIMO
- PoE

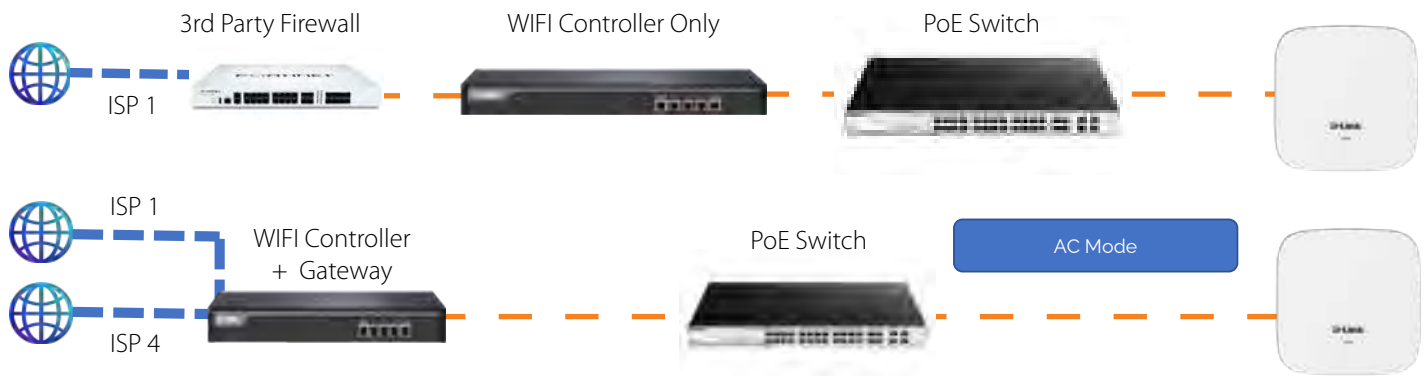**Outdoor IP65**

DAP-1630F
- Outdoor AC1200 (2x2)
- Dual Bands 2.4GHz + 5GHz
- 300Mbps + 867Mbps
- Dual GE (LAN + WAN/LAN)
- Support NAT/FAT/FIT Mode
- MU-MIMO
- IP65
- PoE/Power ADP

Unified WIFI AC Controller Features Highlight

Wireless Controller + Gateway

User can configure Wireless Controller ONLY

- Captive Portal
- PPPoE Auth
- Portal Auth
- Radius Auth
- IP Auth
- Mac Auth
- Password Auth

- AP Profile
- WIFI Setup
- AP Upgrade
- Seamless Roaming

- Web Redirection
- Customizable
- Page after Auth

- Port Forward
- DDNS
- Static Route
- DHCP

- Application Firewall
- Behavior Management
- IP MAC Binding
- DHCP Screening
- Flood Protection
- VPN

- Multi-WAN
- Load Balancing By IP/User/group
- Weightage %
- Application
- WAN QoS
- Bandwidth Control

Multi Controller Mode

Wireless Controller ONLY Mode

3rd Party Firewall | WIFI Controller Only | PoE Switch

ISP 1

ISP 1

AC Mode

WIFI Controller + Gateway | PoE Switch

ISP 4

Model No.	DWC-1010F	DWC-1020F	DWC-1030F	DWC-1050F	DWC-2060F	DWC-2080F	DWC-2090F
AP License upgradable	Free	Free	Free	Free	Free	Free	Free
Gigabit WAN	1	1	1 (Max 4)	1 (Max 4)	1 (Max 4)	1 (Max 4)	1 (Max 4) (Max 4)
Gigabit LAN	4	4	4 (Min 1)	4 (Min 1)	5 (Min 2)	5 (Min 2)	5 (Min 2)
Power	AC:100~240V	AC:100~240V	AC:100~240V	AC:100~240V	AC:100~240V	AC:100~240V	AC:100~240V
USB 2.0	/	/	/	/	2	2	2*USB2.0; 1*USB3.0
Console Port	/	/	/	/	1	1	1
Max QTY of managed AP	32	64	128	256	512	1024	2048
Max QTY of User (AC Mode)	60	80	128	256	512	1024	3072
Max QTY of User (wireless controller ONLY Mode)	Unlimited (Based on 3rd Party GW performance)	Unlimited (Based on 3rd Party GW performance)	Unlimited (Based on 3rd Party GW performance)	Unlimited (Based on 3rd Party GW performance)	Unlimited (Based on 3rd Party GW performance)	Unlimited (Based on 3rd Party GW performance)	Unlimited (Based on 3rd Party GW performance)
Max QTY Local Auth	2048						
Captive portal	•						
Max ACL	•						
Operation Mode	AP Controller/Enterprise Gateway	AP Controller/Enterprise Gateway	AP Controller/Enterprise Gateway	AP Controller/Enterprise Gateway	AP Controller/Enterprise Gateway	AP Controller/Enterprise Gateway	AP Controller/Enterprise Gateway
Seamless Roaming	•						
5G Priority	•						
Smart QoS	•						
Ethernet Backup	•						
Multiple ISP Network	•						
Ethernet Superimposed	•						
Static Routing	•						
Behavior Control	•						
VPN dial up	•						
WAN port VLAN	•						
3rd Radius Server	-				•		
AC Remote Management	•						
Security	like TCP/UDP/ICMP Flooding, IP/MAC/URL/Web filtering functions, Ping of Death and other related threats, Loop Detection, ARP defense						
AP Management	Auto AP discovery, Zero Config or Central config the SSID, password, RF power,IP address, channel, AP location...						
Remote Control	Remote access into management WEB Interface remotely or through cloud server						
Portal Authentication	PPPoE Auth, MAC Auth, Portal Auth including member auth and one-click auth, 3rd Party radius auth						

D-Link

D-Link®
FOR BUSINESS

TOTAL NETWORK SWITICHING SOLUTIONS

## Multi-Gigabit | Manageability | PoE

Building a digital & future proof Enterprise Network

Next-Gen Connectivity for Next-Gen Business

Data center switch	L3 manageable Switch	Smart L2 Switch	Industrial Switch	PoE Switch	250M PoE Switch

Your Link to Business Success

D-Link Total Network Solutions

D-Link is a global leader in providing network connectivity solutions for a range of businesses. From the beginning, D-Link engineers have researched, designed and manufactured innovative, standards-based networking solutions that provide our customers with secure, reliable, easy to manage high-performance networks. We sell our state-of-the-art hardware at the best prices, and even though price may be the deciding factor for many new customers, D-Link's innovation, reliability and service keeps them loyal year after year.
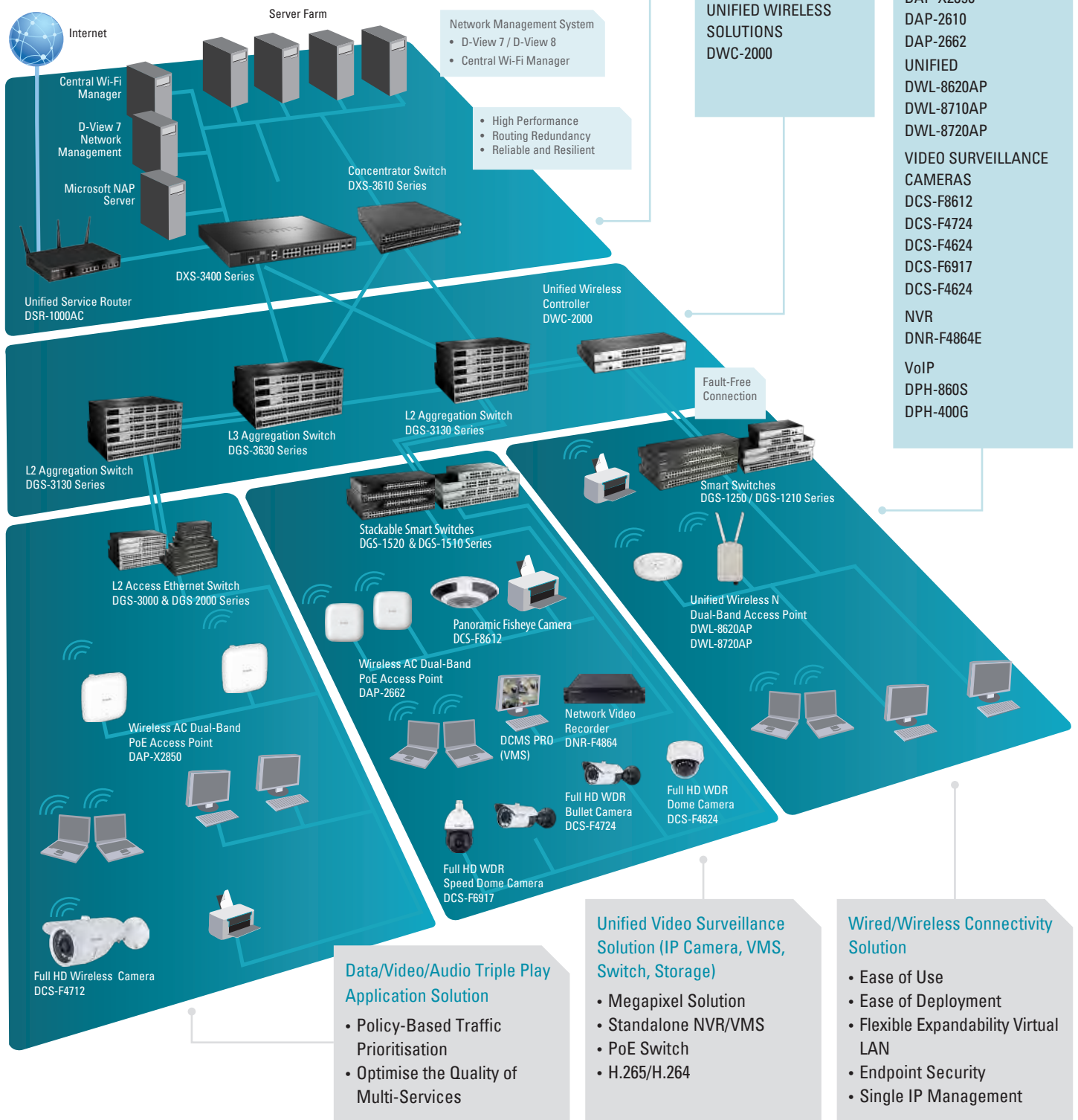
Core Network

LAYER 3 CORE
ETHERNET SWITCHES
DXS-3400 Series
DXS-3610 Series

Access Network

LAYER 2 ACCESS
ETHERNET SWITCHES
DGS-3000 Series
DGS-2000 Series

SMART SWITCHES
DGS-1520 Series
DGS-1510 Series
DGS-1250 Series
DGS-1210 Series

Aggregation Network

LAYER 2 / LAYER 3
AGGREGATED
ETHERNET SWITCHES
DGS-3630 Series
DGS-3130 Series

UNIFIED WIRELESS
SOLUTIONS
DWC-2000

WIRELESS ACCESS
STANDALONE
DAP-2695
DAP-X2850
DAP-2610
DAP-2662

UNIFIED
DWL-8620AP
DWL-8710AP
DWL-8720AP

VIDEO SURVEILLANCE
CAMERAS
DCS-F8612
DCS-F4724
DCS-F4624
DCS-F6917
DCS-F4624

NVR
DNR-F4864E

VoIP
DPH-860S
DPH-400G

Internet

Server Farm

Network Management System
• D-View 7 / D-View 8
• Central Wi-Fi Manager

Central Wi-Fi Manager

D-View 7 Network Management

Microsoft NAP Server

Concentrator Switch
DXS-3610 Series

• High Performance
• Routing Redundancy
• Reliable and Resilient

DXS-3400 Series

Unified Service Router
DSR-1000AC

Unified Wireless Controller
DWC-2000

L2 Aggregation Switch
DGS-3130 Series

L3 Aggregation Switch
DGS-3630 Series

L2 Aggregation Switch
DGS-3130 Series

Fault-Free Connection

Smart Switches
DGS-1250 / DGS-1210 Series

L2 Access Ethernet Switch
DGS-3000 & DGS 2000 Series

Stackable Smart Switches
DGS-1520 & DGS-1510 Series

Unified Wireless N
Dual-Band Access Point
DWL-8620AP
DWL-8720AP

Panoramic Fisheye Camera
DCS-F8612

Wireless AC Dual-Band PoE Access Point
DAP-2662

Wireless AC Dual-Band PoE Access Point
DAP-X2850

DCMS PRO (VMS)

Network Video Recorder
DNR-F4864

Full HD WDR Dome Camera
DCS-F4624

Full HD WDR Bullet Camera
DCS-F4724

Full HD WDR Speed Dome Camera
DCS-F6917

Full HD Wireless Camera
DCS-F4712

Data/Video/Audio Triple Play Application Solution

• Policy-Based Traffic Prioritisation
• Optimise the Quality of Multi-Services

Unified Video Surveillance Solution (IP Camera, VMS, Switch, Storage)

• Megapixel Solution
• Standalone NVR/VMS
• PoE Switch
• H.265/H.264

Wired/Wireless Connectivity Solution

• Ease of Use
• Ease of Deployment
• Flexible Expandability Virtual LAN
• Endpoint Security
• Single IP Management

High-Speed **10 Gigabit** Network Solutions

Layer 2/3 10G Switches (DXS-1100 Series, DXS-1210 Series, DXS-3400 Series, DXS-3610 Series)

From entry level Layer 2 smart switches with intuitive and easy-to-use GUI to Layer 3 fully managed 10G switches that support physical stacking and expansion module, whether you are managing a small network with a few 10G links, or a large Enterprise network with 10G links throughout, D-Link has the right switch for you.

DXS-3610 Series

Fully managed Layer 3 Managed Switches, designed for Top-of-the-rack deployment with expansion module for additional 1G, 10G or 40G ports.

DXS-3400 Series

Layer 3 Lite Managed Switches support physical stacking up to 4 units, hot-swappable power module and fan modules.

DXS-1210 Series

Layer 2 Web Smart Switches for businesses of all sizes requiring essential L2 switching functionality and advanced security features.

DXS-1100 Series

Layer 2 Lite Entry level Smart Switches with intuitive and easy-to-use Graphical User Interface.

10G SFP+ Optical Transceivers (DEM-43X Series)

D-Link's 10G SFP+ Transceiver series are hot-swappable SFP+ transceivers that plug into SFP+ slots on switches and support 10G Ethernet. They offer customers a wide variety of 10G Ethernet connectivity options (10GBASE-SR/LR/LRM/ER/ZR) for data centers, enterprise wiring closets, and service provider transport applications.

10G Network Cables (Cat 7 F/FTP, Cat 6A FTP/UTP Cables)

High quality cables, comply to International standard to ensure reliable infrastructure for your building, data centres, offices and campus data communication.

Cat 6a – support 10GBase-T up to 100 meters

Cat 7 – support 10GBase-T up to 100 meters with strict specifications for crosstalk and system noise

The Right Switch For Your Business

D-Link offers a comprehensive suite of business class switches that provide the foundation for a full range of high-value network solutions

Core
Modular Solution for High Redundancy and Reliability

Aggregation
Stackable for higher density access
Dynamic routing for higher scalability

Access/Cloud Managed
Reliable and secure access
Easy to deploy with cloud manage

Access
Reliable and secure access
Easy to deploy manage

Network Complexity

Feature and Performance

Data Center Switch

X-Stack Managed Switch (ToR)

DXS-5000 Series
DQS-5000 Series

Managed Switch

DXS-3610 Series
DGS-3630 Series

Smart Pro Switch

DGS-3130 Series
DGS-3000 Series

Cloud Managed Switch

DGS-1520 Series
DGS-1510 Series

Smart Switch

DBS-2000 Series **nuclias** connect
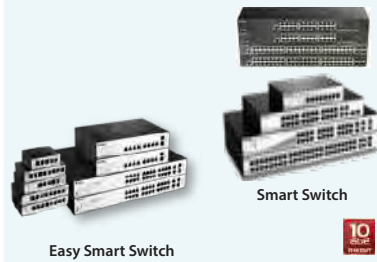
Easy Smart Switch

DXS-1210 Series
DXS-1250 Series
DGS-1210 Series
DGS-F1210 Series **nuclias** connect

DGS-1100V2 **nuclias** connect
AGS- F1100

Data Center/Campus

Enterprise

Multi-branch

SMB/SOHO

Building a Digital Future proof Network with D-Link Switching Solutions
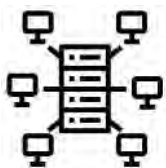
Wide Development Options
Right switch for right place, with features and options for every need

Flexible Networking Design
D-Link switches offers both Connectivity and power supply for flexible network setup

Smart and Secure
Ahead of evolving threats with integrated security features

Access Network

Over the past few years, enterprise access networks have seen one of the fastest areas of growth. As technology has evolved and user demand has increased, enterprise access networks have turned from a 'traditional' data network to a more complex network with integrated data, voice and multimedia services. D-Link, in meeting the needs of businesses to have more productive processes, is providing the following solutions for their access network:

Wireless Connectivity

D-Link unified solutions bring robust, stable and secure wireless access to businesses. The new generation of Wireless AC and N access points offers seamless connectivity, self-healing mechanisms, traffic segmentation and centralised management to achieve a wireless environment as productive and secure as a wired network.

Power over Ethernet

D-Link's unparalleled range of PoE switches are designed with functionality and robustness in mind. From unmanaged, plug-and-play solutions, to PoE modules in high-end chassis switches, D-Link offers features like Time-Based PoE to centrally cut off the power when not in use, and the new 802.3bt PoE++ standard, to provide extra power up to 90W to the next generation of network appliances.

Video Surveillance

Traditionally, CCTV cameras, video recorders and sensors have been a separate part of a business' subsystems. IP technology applied to surveillance brings flexibility, unified management and comprehensive image recording and indexing to modern networks. With a complete range of IP cameras and Network Video Recorders (NVRs), D-Link can offer the solution that best matches your business needs.
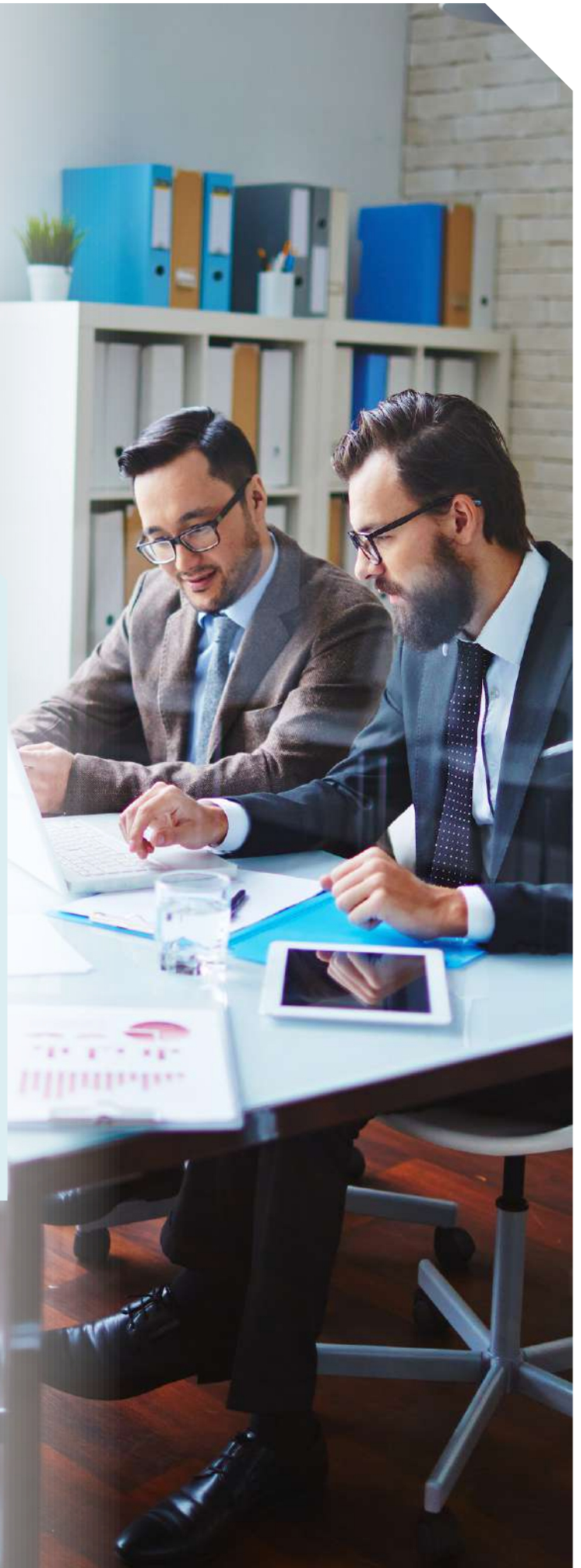
Aggregation Network

Aggregation Networks distribute traffic from an Access Network across the business. Routing, filtering and WAN access processes, and access to resources like network storage, all therefore take place at this level. D-Link offers flexible and robust solutions with Layer 2+ and Layer 3 managed switches, ready for the next generation of IP networks:

IPv6-Ready

As the range of IPv4 addresses has been depleted, IPv6 is being deployed in an increasing number of organisations such as Internet Service Providers (ISP) and international data carriers. Therefore businesses need to build the migration from IPv4 to IPv6 into their Network strategies to ensure that they are able to benefit from the advanced services that only IPv6 can offer. Most D-Link aggregation switches are certified 'IPv6 Ready' and are capable of being integrated into current and future networks, protecting both your investment and IT budget.

Bandwidth Management & Traffic Filtering and Analysis

With the surge of traffic and additional services, the business network is under increasing pressure, so IT administrators need to ensure that traffic is at a reasonable level and network resources are utilised properly. D-Link offers the tools to run a network smoothly and avoid disruptions and bottlenecks, such as bandwidth management to a high level of granularity. D-Link has SafeGuard Engine technology, too, which protects the switch from unexpected traffic peaks or virus outbreaks, and sFlow compatibility to analyse network sessions in great detail.

Core Network

The Core is the backbone of any big business network, and is therefore the most critical 'component'. High availability, resilience and fault isolation are important factors if you are to avoid critical disruptions. D-Link has the technology to ensure that the core processes run smoothly and meet your business needs:

10 Gigabit

With an increase in network traffic, Gigabit technology has become a bottleneck at the core portion of the network, which is where 10 Gigabit switches come in. To ensure that the core can provide the services and features needed at the lower levels of the network, 10 Gigabit uplinks can also be deployed on Gigabit switches. D-Link offers 10 Gigabit technology in both switches and copper/fibre modules in a wide variety of Layer 2+ and Layer 3 devices.

xStacking Technology

D-Link's stacking technology provides resilience and high availability in the form of high-speed, dual-ring stacking solutions that can work around a hardware fault in milliseconds. Faulty hardware can be hot-swapped and replaced without impacting the rest of the network, minimising downtime and ensuring that critical processes are not interrupted.

30-Second Layer Guide

Network switch technology operates on a 'layer' basis to ensure total interoperability. Here's our quick guide to what the layers mean...

Layer 1

The Physical Layer, which governs how the network hardware fits together and its assorted electrical/optical specifications. Responsible for the transmission and reception of raw data streams via physical means.

Layer 2

The Data Link Layer, specifies how network traffic is shared and data moved around. It's here that Ethernet switches mostly operate, forwarding traffic based on the universally implemented MAC address of attached devices. In other words, the formation of the data connection between two or more devices.

Layer 3

The Network Layer, at which the IP networking protocol works. It's here that routing is done, based on the Internet Protocol address information. A Layer 3 switch can, therefore, route traffic between networks.

Layers 4-7

As you move up the layers more and more information about the data inside the packets and ultimately the applications involved becomes available. Advanced switches can filter traffic using this information to make more informed decisions on how to process and direct it. It's at this level that FTP servers and the Internet operate, but that's beyond this guide.

Switches

If a switch fails, your business can experience any number of issues, from loss of connectivity for a group of users, to major disruption and downtime for the entire network. D-Link has the knowledge and expertise to help you find the right solution for your business. From the core of your network to its edge, D-Link's comprehensive selection of switches includes 10 Gigabit, Gigabit, Fast Ethernet and PoE that range from entry level to fully managed, more sophisticated solutions. Products under this category include Unmanaged, Smart, Managed and Top-Of-Rack, all as detailed below.

DXS-5000-54S

Top-Of-Rack

• Award-winning Enterprise-class performance, security and control

• Modular architecture with redundant control planes option

• High performance 10 Gigabit stacking options with Layer 2 and Layer 3 features

• High reliability with fault-tolerant topologies ensures rock-solid connectivity, and D-Link Green™ technology provides eco-friendly power saving

• Redundant loadsharing power supplies and a hot-swappable fan module for mission-critical network applications

Smart

• Many of the benefits of Managed, as outlined below, but without the complexity or cost

• Ease of configuration through web-management

• Ideal for users wishing to build small- to medium-size networks but who don't need the advanced features necessary for large-scale corporate deployments

• PoE-compliant, eliminating the need for external power supplies, thus allowing you to utilise existing cables for a tidier system

• Centralised management and virtual stacking via D-Link's intuitive single IP management

• Layer 3 static routing allows for scalable network design for future business growth

• Supports unique Auto Voice and Auto Surveillance VLANs to prioritise traffic from VoIP phones and IP cameras in the network

Managed

• Allows administrators to monitor traffic across the network, introduce redundancy and control access

• Found in networks with numerous users and applications, where performance and reliability must be maximised and security enforced

• Ideal for large sites where server farms are deployed, with hundreds of users sharing multiple printers and applications and routinely using wireless access and video-conferencing, such as in corporate headquarters

• Includes D-Link's industry-leading selection of xStack switches

• PoE-compliant, eliminating the need for external power supplies, thus allowing you to utilise existing cables for a tidier system

Unmanaged

• The simplest way to build a network and let it pretty much run itself

• Plug-and-play connectivity, which makes these perfect for small businesses without a dedicated IT department

• Ideal for small networks that need to share resources

• Several of our unmanaged switches fall into our D-Link Green™ range, specifically designed to reduce energy consumption and utilise recycled packaging, which helps reduce the impact on the environment

• PoE-compliant, eliminating the need for external power supplies and thus allowing you to utilise current cables for a tidier system
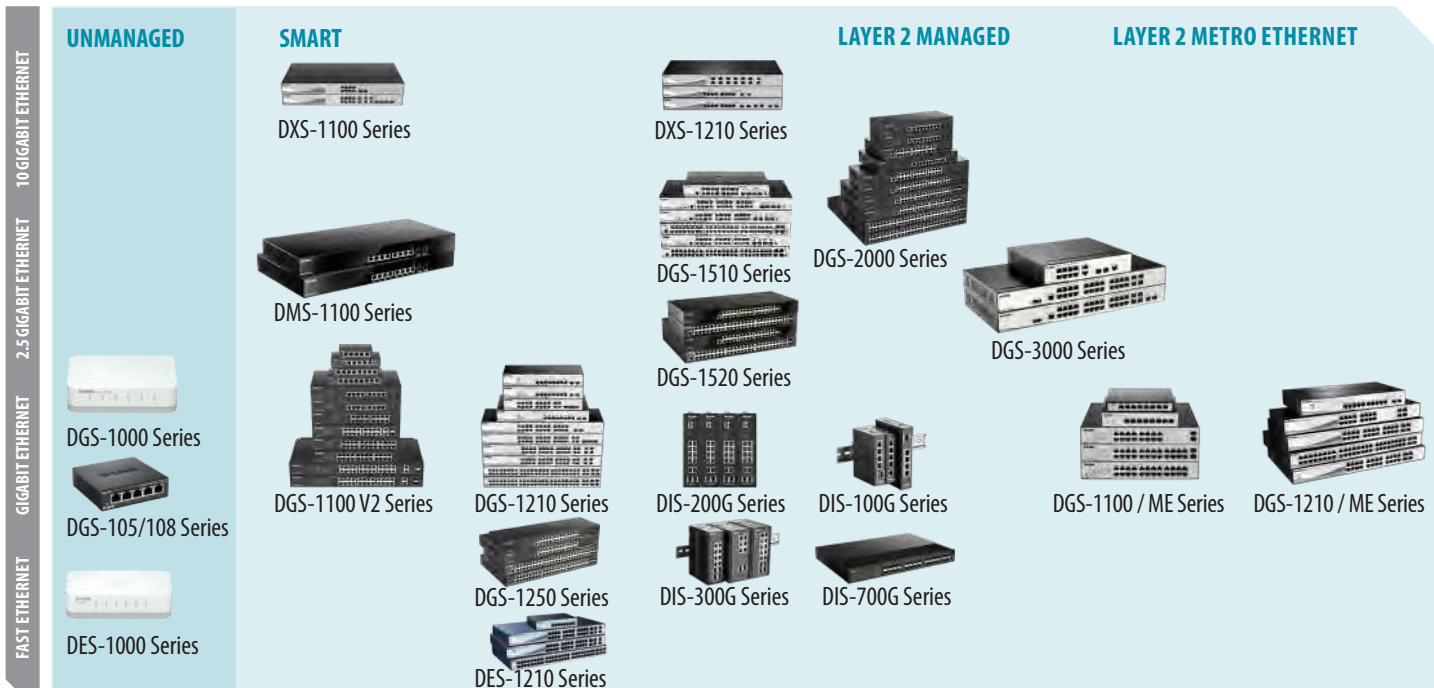
10 GbE Top-Of-Rack Switches

10 GIGABIT ETHERNET

| DXS-5000 Series | DXS-3610 Series | DXS-3400 Series |

Layer 2/3 Gigabit Manage Switches

10 GIGABIT ETHERNET / GIGABIT ETHERNET

| DGS-3630 Series | DGS-3130 Series | DGS-3000 Series | DGS-2000 Series |

Standalone Switches

10 GIGABIT ETHERNET | 2.5 GIGABIT ETHERNET | GIGABIT ETHERNET | FAST ETHERNET

UNMANAGED

DGS-1000 Series

DGS-105/108 Series

DES-1000 Series

SMART

DXS-1100 Series

DMS-1100 Series

DGS-1100 V2 Series

DGS-1210 Series

DGS-1250 Series

DES-1210 Series

LAYER 2 MANAGED

DXS-1210 Series

DGS-1510 Series

DGS-1520 Series

DGS-2000 Series

DIS-200G Series

DIS-100G Series

DIS-300G Series

DIS-700G Series

LAYER 2 METRO ETHERNET

DGS-3000 Series

DGS-1100 / ME Series

DGS-1210 / ME Series

PoE Switches

2.5 GIGABIT ETHERNET | GIGABIT ETHERNET | FAST ETHERNET

UNMANAGED	SMART		LAYER 2/2+	METRO ETHERNET
	DMS-1100-10TP (PoE+)		DGS-2000-10P (PoE+)	
			DGS-2000-10MP (PoE+)	
			DGS-2000-28P (PoE+)	
			DGS-2000-28MP (PoE+)	
			DGS-2000-52MP (PoE+)	
DGS-1008P (PoE+)	DGS-1100-08P V2 (PoE+)	DGS-1210-10P (PoE+)	DGS-3000-28LP (PoE+)	DGS-1100-24P/ME (PoE+)
DGS-1008MP(PoE+)	DGS-1100-24P V2 (PoE+)	DGS-1210-10MP (PoE+)	DGS-3000-28XMP (PoE+)	DGS-1210-10P/ME (PoE+)
DGS-1010MP	DGS-1100-10MP V2 (PoE+)	DGS-1210-28P (PoE+)	DGS-3130-30NPS (PoE+)	DGS-1210-28P/ME (PoE+)
	DGS-1100-10MPP V2 (UPoE)	DGS-1210-28MP (PoE+)	DGS-3130-30PS (PoE+)	DGS-1210-28MP/ME (PoE+)
	DGS-1100-26MP V2 (PoE+)	DGS-1210-52MP (PoE+)	DGS-3130-54PS (PoE+)	DGS-1210-52P/ME (PoE+)
	DGS-1100-26MPP V2 (UPoE)	DGS-1210-52MPP (PoE+)	DGS-3420-28PC (PoE+)	DGS-1210-52MP/ME (PoE+)
		DGS-1250-28XMP	DGS-3420-52P (PoE+)	DGS-1210-52MPP/ME (PoE+)
		DGS-1250-52XMP	DGS-3630-28PC (PoE+)	
		DGS-1510-28P (PoE+)	DGS-3630-52PC (PoE+)	
		DGS-1510-28XMP (PoE+)		
		DGS-1510-52XMP (PoE+)		
		DGS-1520-28MP (PoE+)		
	DES-1210-08P (PoE)	DGS-1520-52MP (PoE+)		
	DES-1210-28P (PoE+)	DGS-100G-5PSW (PoE+)		
		DGS-200G-12PS (PoE+)		
DES-1008PA (PoE)		DGS-200G-12PSW (PoE+)		
DES-1018MP (PoE)		DGS-300G-8PSW (PoE+)		
		DGS-300G-14PSW (PoE+)		

Power over Ethernet (PoE)

What is Power over Ethernet (PoE)?

Power over Ethernet allows a single cable (usually referred to as a CAT5 cable) to provide both data connection and electrical power to any PoE-enabled devices such as wireless access points, network cameras or IP phones.
PoE essentially passes electrical power along with data on Ethernet (LAN) cabling to compatible network devices, thereby negating the need for power outlets in proximity to the devices being powered.

With PoE you only need one cable for both power and data so wireless access points and Video Surveillance cameras, for example, can be installed without having to run power to inaccessible places such as ceilings or roof spaces. You can also protect such devices from outages, by adding a central Uninterruptible Power Supply (UPS), and both monitor and manage energy consumption centrally – perhaps even switching devices off when they're not needed. Support for PoE can be added to existing networks but, if you're serious about it, PoE-enabled switches don't need additional wiring and are easier to manage. Either way, check for support for industry standards, both on the switches and networking devices you want to power.

What is PoE ++

The original IEEE 802.3af & 3at PoE / PoE + standard provide up to 15.4A and 30W respective to each PoE enabled device. The latest standard 802.3bt 90W expands the use of PoE in new applications.

802bt 90W PoE++ technology drives high-power infrastructure for smart building systems, safe cities, thin clients, Point-of-Sales, digital signages, high-performance Wi-Fi access points, smart lighting system and a lot more. Building owners can adopt the standard to future-proof their PoE networks.

How can PoE be Green?

Using D-Link's integrated time-based PoE functionality, it is possible to automatically shut down ports which also shut down the devices on a predefined schedule, saving power and money, and increasing security.

What is the PoE Power Budget?

The PoE Power Budget is the maximum amount of power that a switch can provide to all the PoE devices connected to it. If this is exceeded, then devices will not function correctly as they are not receiving adequate power. In order to choose the right switch, the overall power consumption for the network must be calculated. This can be done by adding up the maximum power demand of every device you intend to connect to the switch.

It is essential to consider the current and possible future power requirements of your network; over-specifying the power budget of a switch in the first instance will result in higher initial costs but could save time and money in the long run.

D-Link has two 'Smart Switch' families to address different requirements – Smart and Smart+ (MP series). Switches in the Smart+ range have higher power budgets and are capable of providing more power per port than the Smart range which is more economical.
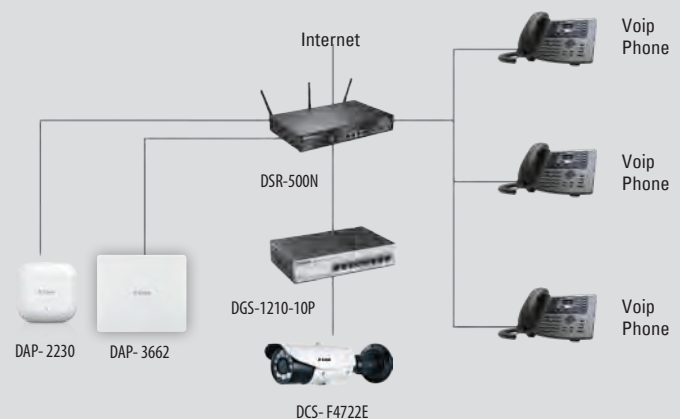
PoE devices can transmit a Discovery Protocol that informs the PoE Switch of the actual power required by the device. If the power is less than the default (15.4W for PoE or 30 W for PoE+), the PoE switch acknowledges the request with its available power and modifies the power budget accordingly. If the requesting powered device exceeds the power budget for the switch, the port is either powered down, or the port remains in low-power mode.

Typical PoE Applications

Benefits of PoE

Reduced Costs

With PoE, only one cable – a simple CAT5 Ethernet cable – is required to be routed to each device instead of two (data and power), so fewer power adapters or outlets are needed. In large organisations this can bring a major cost reduction.

Flexibility

A PoE-enabled appliance can be installed virtually anywhere, without the need for AC outlets. This provides flexibility and scalability in placing all the network equipment (switches, wireless access points, and IP cameras) in the most optimal locations instead of locations only where power is available. This also enables better network designs.

Reliability

PoE infrastructure enables centralised power management that provides back-up with an Uninterruptable Power Supply (UPS) to the devices and all the distributed PD networking devices; even during power failures this ensures the reliability and availability of powered devices.

Network Control

Network administrators can control and monitor devices using SNMP (Simple Network Management Protocol). Devices can be powered down when not in use or if there is unauthorised access, which allows for increased security.

Add to, Move or Change the network

PoE-enabled switches enable network additions, moves and changes to be accomplished faster. They allow the network to be more flexible and accommodating to changing business and network requirements.

Centralised Power Management

Managing a PoE-enabled switch via a web browser or by SNMP, enables remote networking devices to be easily reset or shut down, saving the time and expense of dispatching a technician.

Security

Shutting down unnecessary PoE network devices when no one is at the office ensures better business security.

Eco-Friendly

As with security, shutting down unnecessary PoE network devices can also save power and money for a business.

IP Cameras

There are several types of IP cameras – from a basic box camera to an outdoor pan, tilt and zoom (PTZ) to a heated dome camera, and each one has a different power requirement. Basic outdoor IP cameras have a power consumption of about 7 watts; however, additional features require additional power, so an outdoor PTZ device with IR night vision will require significantly more power than an indoor static device.

IP Phones

IP phones are commonly connected and powered by PoE. A standard IP phone will consume around 4-7 watts of power whereas one with a backlit, colour screen or even video conferencing capability will use substantially more.

Wireless Access Points

Due to their placements, wireless access points are typically powered using PoE, but different types of Wireless APs have different power requirements. For example, dual-band concurrent APs require more power as they broadcast on both the 2.4 and 5 GHz frequencies. The latest Wireless AC technology delivers wireless speeds of up to 2600 Mbps on the 5 GHz band with enhanced coverage so can benefit from PoE+'s additional power.

Feature-rich, yet simple to deploy and maintain, D-Link Full Range Power-over-Ethernet (PoE) switches are ideal for larger, more complex applications such as Smart IoT, Industry 4.0 & Video surveillance networks. Designed to maximise efficiency and security at the hardware level, D-Link PoE switches can help you perform both routine and not-so-routine network tasks more quickly and effectively than unmanaged switches, with the flexibility and control required to ensure long-term network health and uninterrupted connectivity. Upgrading from unmanaged to L3, Industrial & Smart Managed PoE switches offers benefits and capabilities that pay for themselves.

Here are seven reasons your organization should consider switching to D-Link today.
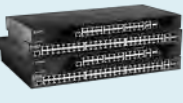
1 Surveillance-optimised, intuitive configuration interface through web browser

2 Remote controls and auto-task completion

3 Improved provisioning and planning

4 Auto surveillance VLAN features

5 Future-proofing and scalability

6 Powerful diagnostic tools

7 Real-time alerts and notifications

D-Link offers Full PoE Solution
From Unmanaged | L2/L3 | Industrial Grade | Cloud PoE Switch

PoE (802.3af/at/bt*)

250m Unmanaged Surveillance Switch
DSS-100E

DSS-100E-9P (92W)
DSS-100E-18P (230W)

nuclias connect
Easy Smart
DGS-1100 Series

DGS-1100-08PV2 (64W)
DGS-1100-18PV2 (130W)
DGS-1100-24PV2 (100W)
DGS-1100-10MP (130W)
DGS-1100-26MP (370W)
DGS-1100-10MPP (242W)
DGS-1100-26MPP (518W)

nuclias connect
Standard Smart
DGS-1210 Series

DGS-1210-10P (65W)
DGS-1210-10MP (130W)
DGS-1210-28P (193W)
DGS-1210-28MP (370W)
DGS-1210-52MP (370W)
DGS-1210-52MPP (740W)

Standard L2 Managed
DGS-3000 Series

DGS-3000-28LP (193W)
DGS-3000-28XMP (370W)

Stackable Smart
DGS-1510 Series

DGS-1510-28P (193W)
DGS-1510-28XMP (370W)

Stackable Managed
DGS-3130 & DGS-3630 Series

DGS-3130-30PS (370W*)
DGS-3130-54PS (370W*)

DGS-3630-28PC (370W*)
DGS-3630-52PC(370W*)

250m Unmanaged
DES/DGS-F1000 Series

DGS/DES-F1006P-E (60W)
DGS/DES-F1010P-E (96W)
DGS/DES-F1018P-E (150W)
DGS/DES-F1026P-E (250W)

DGS-F1100-10PS-E (96W)

Standard Smart
DGS-1250 Series

DGS-1250-28XMP (370W)
DGS-1250-52XMP (370W)

nuclias cloud
Cloud Managed
DBS-2000 Series

DBS-2000-10MP (130W)
DBS-2000-28P (193W)
DBS-2000-28MP (370W)
DBS-2000-52MP (370W)

Hybrid Stackable L3
DGS-1520 Series

DGS-1520-28MP (370W)
DGS-1520-52MP (370W)
With RPS 740W

2.5Gbps + PoE

Industrial Switch
DIS-100G/200G/300G Series

DIS-100G-5PSW (120W)
DIS-200G-12PS (130W)
DIS-200G-12PSW (130W)
DIS-300G-8PSW (120W)
DIS-300G-14PSW (240W)
DIS-F2010PS-E (240W)

* 740W with DPS-700 RPS

General PoE Application

DGS-1100-10MPP/26MPP (802.3bt)

Ad Kiosk

90W PoE CCTV   Smart Lighting

DGS-1520 (2.5G + PoE+)

Wi Fi 6 CERTIFIED

Access Point   IP Camera   IP Phone

DGS-3630 (L3 + PoE+)

Internet

Security Gateway

In Office

DGS-1250 (smart + 10Gbps uplink + PoE+)

Access Point   IP Camera   IP Phone

Fiber

DGS-1510-28XMP
(smart + 10Gbps uplink + PoE+)

Access Point   IP Camera

Warehouse

— Gigabit Copper
— Gigabit PoE
— Gigabit Fiber

Surveillance

Conference Call

Wi-Fi Coverage

Wired Connections

Smart PoE Application
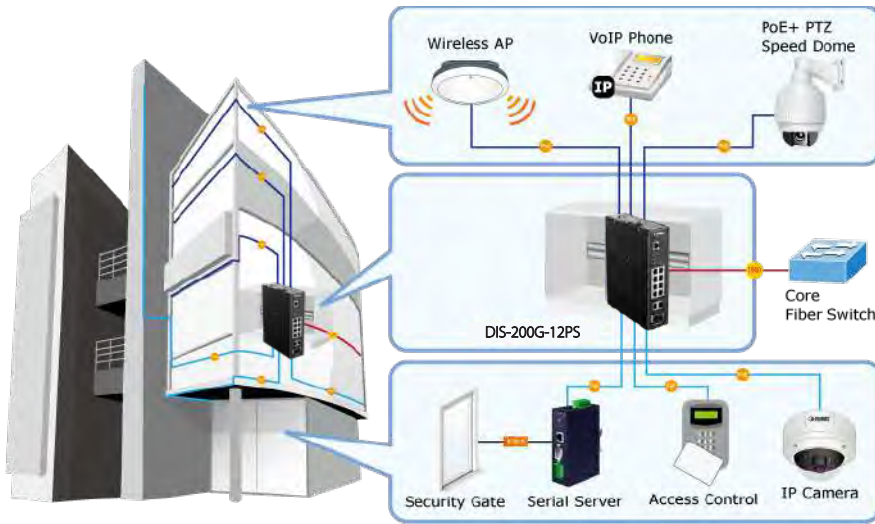
Smart Building
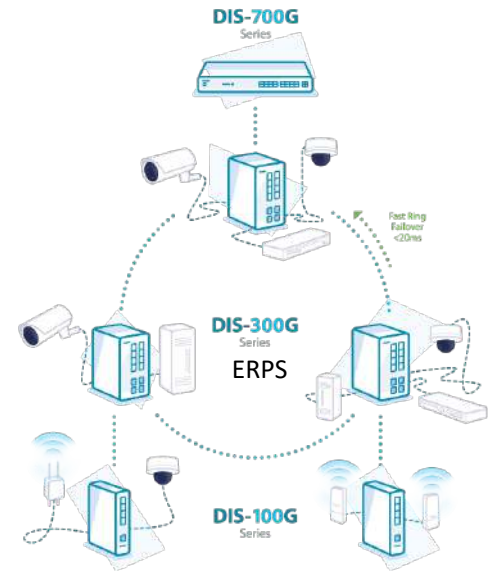
Smart City

Smart Industry Application
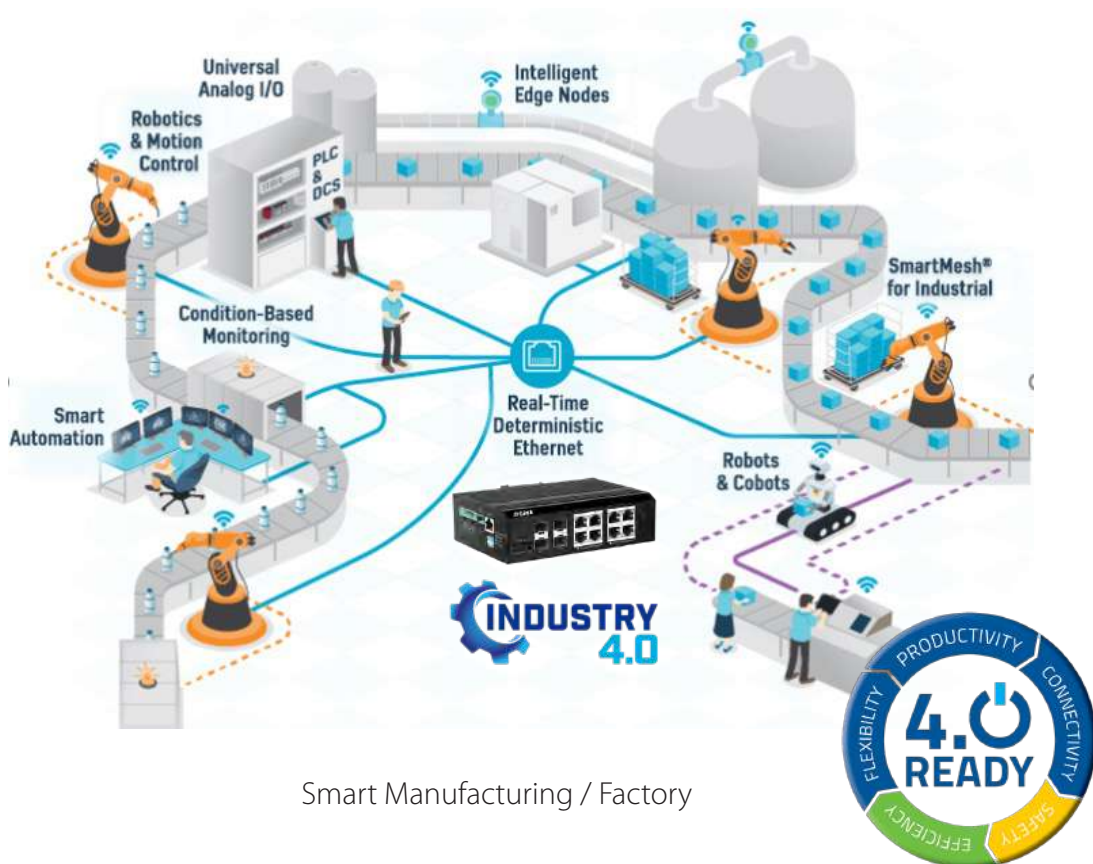
Smart Manufacturing / Factory

Outdoor Smart Application

Surveillance

WiFi 6

Digital Signage

Public Announce System

EV Charger

Industrial Switch   DIN Rail PSU

Smart Pole

Outdoor Smart Application

Gateway   xDSL Modem   Internet

PoE Unmanaged Switch

DGS-F1026P-E

1G
1G PoE
10M PoE

Long Range up to 250 Meters

Long Range up to 250 Meters

PoE IP Camera   PoE Access Point/IP Phone   NAS/Server/PC/Printer
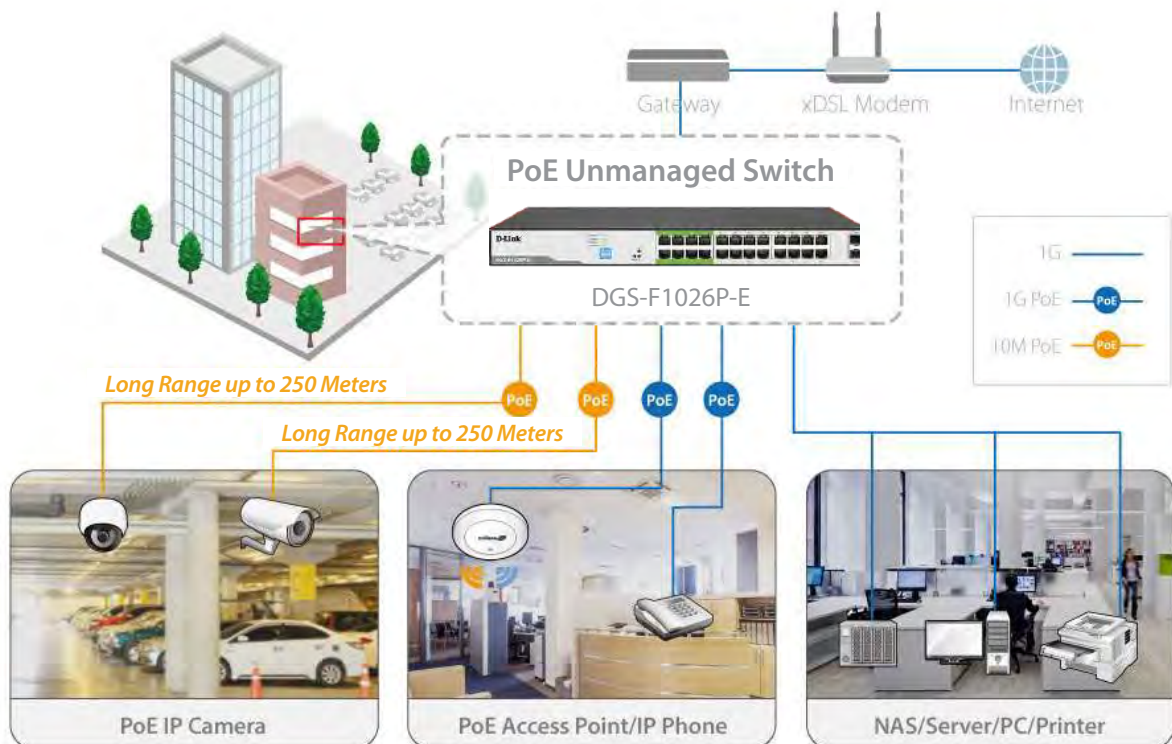
250m PoE

Data Center Switches

DXS and DQS-5000 Series

These series of Data Center Switches are high-performance switches that feature high port density, routing, and ultra-low latency, designed to be deployed as Top-of-Rack (ToR) or leaf-spine switches in data center applications. Combined with ONIE support and increased cost-efficiency, the 5000 Series form a flexible long-term solution for managing and expanding data center infrastructures in a Software-defined Networking (SDN) environment. The 5000 Series switches support open networking, providing IT professionals with innovative third-party operating systems and software options. This lowers costs by separating software from hardware and increases network agility and flexibility.

The 5000 Series switches are available in a variety of high-capacity interface combinations, including SFP+, QSFP+, SFP28, and QSFP28 ports to accommodate the scale and requirements of data centers. Open Network Install Environment (ONIE) support means the switches can be easily integrated inexisting network ecosystems using a variety of supported third-party Network Operating Systems (NOSs) for optimal compatibility. Furthermore, the ability to pick and choose software based on practical requirements eliminates the restrictions imposed by vendor-locked software environments.

Key Series Features

- Variety of high-speed interface combinations to meet different network requirements
- Two AC/DC hot-swappable power modules for 1+1 redundancy and load sharing
- Modular, N+1 hot-swappable fan design
- Wire-speed, ultra-low latency switching
- Variety of 10G, 25G, 40G, and 100G interfaces for high-density availability and uplink options
- Supports OpenFlow v1.0/1.3
- Supports Virtual eXtensible LAN (VXLAN) network virtualization
- 802.1Qau, 802.1Qbb, 802.1Qaz Data Center
- Preloaded with Open Network Install
- Open Network Linux (ONL)-ready
- RJ-45/mini-USB console port
- Dedicated management port
- Industry-standard CLI

Series include the below models

DXS-5000-54S
- 48 10G SFP+ ports
- 6 x 40 QSFP+ ports
- Up to 1.44Tbps switching capacity
- Up to 1,071 Mpps
- Up to 288K Mac addresses
- 12MB Packet Buffer Memory

DQS-5000-32S
- 32 40G QSFP+ ports
- Up to 2.56Tbps switching capacity
- Up to 1,428 Mpps
- Up to 288K Mac addresses
- 12MB Packet Buffer Memory

DQS-5000-32Q28
- 32 100G QSDP28 ports
- Up to 6.4Tbps switching capacity
- Up to 2,980 Mpps
- Up to 40K Mac addresses
- 16MB Packet Buffer Memory

DQS-5000-545Q28
- 48 25G SFP28 ports
- 6 100G QSFP 28 ports
- Up to 3.6Tbps switching capacity
- Up to 2,380 Mpps
- Up to 40K Mac addresses
- 16MB Packet Buffer Memory

Available Modules

Optional 10G SFP+ Transceivers
DEM-431XT - 10GBASE-SR, multi-mode, OM1: 33 m/ OM2: 82 m/ OM3: 300 m (without DDM)
DEM-432XT - 10GBASE-LR, single-mode, 10 km (without DDM)
DEM-433XT - 10GBASE-LR, single-mode, 40 km (without DDM)
DEM-434XT - 10GBASE-ZR, single-mode, 80 km (without DDM)
DEM-435XT - 10GBASE-LRM, multi-mode, 200 m (without DDM)

Optional WDM (Bidi) SFP+ Transceivers
DEM-436XT-BXD - 10GBASE-LR, single-mode, 20 km (TX: 1330 nm, RX: 1270 nm) (without DDM)
DEM-436XT-BXU - 10GBASE-LR, single-mode, 20 km (TX: 1270 nm, RX: 1330 nm) (without DDM)

Optional 40G QSFP+ Transceivers
DEM-QX01Q-SR4 - 40GBASE-SR4, multi-mode, OM3: 100 m / OM4: 150 m
DEM-QX10Q-SR4 - 40GBASE-LR4, single-mode, 10 km

Optional 10G SFP+ Direct Attach Cables
DEM-CB100S - 10G SFP+ to SFP+ 1 m Direct Attach Cable
DEM-CB300S - 10G SFP+ to SFP+ 3 m Direct Attach Cable
DEM-CB700S - 10G SFP+ to SFP+ 7 m Direct Attach Cable
DEM-CB100QXS-4XS - 40G QSFP+ to 4 10G SFP+ 1 m Direct Attach Cable

MODEL	DXS-5000-54S	DQS-5000-32S	DQS-5000-32Q28	DQS-5000-54SQ28
Interfaces				
10G	–	–	–	–
25G	48 x 10G SFP+ Ports	32 x 40G QSFP+ ports	32 x 100G QSFP28 ports	48 x 25G SFP28 ports
40G	6 x 40G QSFP+ Ports	1 x USD 2.0 port	1 x USD 2.0 port	6 x 10G QSFP28 ports
100G	1 x USD 2.0 port	–	–	1 x USD2.0 port
Performance				
Switching Capacity	1.44 Tbps	2.56 Tbps	6.4 Tbps	3.6 Tbps
Max. Forwarding Rate	1,071 Mpps	1,428 Mpps	2,980 Mpps	2,380 Mpps
Packet Buffer Memory	12MB	12MB	16MB	16MB
MAC Address Table	288K	288K	40K	40K
Layer 2 Features				
802.3ad Link Aggregation	Max. 64 groups per device, Max 32 ports per group			
Spanning Tree Protocol (STP)	802.1D, 802.1W RSTP, 802.1s MSTP, Loop Guard, TCN Guard			
802.3x Flow Control	✓			
Jumbo Frame	Up to 9KB			
Port Mirroring	Support One to One, Many to one. Support up to 4 mirroring groups			
VLAN Mirroring	✓			
RSPAN	✓			
Loopback Detection (LBD)	✓			
Layer 3 Multicast Features				
IGMP v1/v2/v3	✓			
MLD v1/v2	✓			
DVMRP v3	✓			
PIM-SSM	PIM-SSM, PIM-SM IPv4/IPv6, PIM-DM IPv4/IPv6			
IGMP/MLD Proxy	✓			
Security				
Broadcast/Unicast/Multicast Control	✓			
SSH	✓			
Port Security	✓			
DoS attack prevention	✓			
IP Source Guard	✓			
DHCP Server Screening	✓			
Dynamic ARP Inspection (DAI)	✓			
Duplicate Address Detection	✓			
Authentication, Authorization and Accounting (AAA)				
802.1X Authentication	Support port-based, host-based and Indentity-driven policy assignment			
Guest VLAN	✓			
Radius Authentication	✓			
TACACS+ authentication	✓			
Authentication for management access	✓			
MAC-based Access Control	✓			
Quality of Service (QoS)				
Queue handling	Strict Priority, Weighted Deficit Round Robin (WDRR)			
Congestion Control	Weighted Random Early Detection			
Bandwidth Control	✓			
Three Color Marker	✓			
Class of Service	✓			
Policy Map	Remark 802.1p priority, Remark ToS/DSCP, Rate limiting			
Data Center Features				
Open Network Install Environment	✓			
FCoE Initialization Protocol (FIP) Snooping	✓			
OpenFlow v1.3	✓			
Management Tool	Support Puppet and Chef			
Data Center Bridging Exchange (DCBX)	✓			
Virtual Extensible Local Area Network (VxLAN)	✓			
Access Control List				
MAC Access List	✓			
IP Access List	IPv4/IPv6			
CPU Interface Filtering	✓			
Time-based ACL	✓			
Management				
Industry-Standard CLI	Support port-based, host-based and Indentity-driven policy assignment			
Telnet Server for IPv4/IPv6	✓			
Secure FTP client for IPv4/IPv6	✓			
SNMP	✓			
SMTP	✓			
RMONv1	✓			
Link Detection	LLDP/LLDP-MED, UDLD, CDP			
DHCP	DHCP Relay, DHCP auto-configuration, DHCP auto-image			

Layer 3 Stackable 10G Managed Switches

DXS-3610 Series

The D-Link DXS-3610 Series Layer 3 Stackable 10G Managed Switches are a set of new, compact, high-performance switches that feature ultra low latency, with 10G Ethernet switching and routing. The 1U height and front-to-back airflow make the DXS-3610 Series suitable for Enterprise and campus aggregation network environments. The DXS-3610 Series is available in two configurations; 48 fixed 10G SFP+ with 6 fixed 100G QSFP28 and 48 fixed 10G Base-T with 6 fixed 100G QSFP28. 100G ports allow for either uplink or stacking configurations, depending on your system's needs.

Series include the below models

DXS-3610-54S
- 48 x 1/10GbE SFP/SFP+ ports
- 6 x 40/100GbE QSFP+/QSFP28 ports
- 19-inch, 1U rack-mount

DXS-3610-54T
- 48 x 1/10GbE Base-T ports
- 6 x 40/100 GbE QSFP+/QSFP28 ports
- 19-inch, 1U rack-mount

Optional Products

DXS-3610-54S/SI 48-port 10G SFP+, 6-port 100G QSFP28 interfaces switch with Standard Image with 2 full load front-to-back AC PSUs and 5 front-to back fan modules
DXS-3610-54S/EI 48-port 10G SFP+, 6-port 100G QSFP28 interfaces switch with Enhanced Image with 2 full load front-to-back AC PSUs and 5 front-to back fan modules
DXS-3610-54T/SI 48-port 10GBase-T, 6-port 100G QSFP28 interfaces switch with Standard Image with 2 front-to-back AC PSUs and 5 front-to-back fan modules
DXS-3610-54T/EI 48-port 10GBase-T, 6-port 100G QSFP28 interfaces switch with Enhanced

Image with 2 front-to-back AC PSUs and 5 front-to-back fan modules
DXS-3610-54S-SE-LIC DXS-3610-54S Standard Image to Enhanced Image License
DXS-3610-54T-SE-LIC DXS-3610-54T Standard Image to Enhanced Image License
DXS-PWR700AC 770 W AC modular power supply with front-to-back airflow
DXS-PWR1000DC 1100 W DC modular power supply with front-to-back airflow
DXS-FAN200 Fan tray with front-to-back airflow

Optional Management Software
DV-700 - D-View 7 Network Management Software
DV-800 - D-View 8 Network Management Software

Optional 100G QSFP28 Transceivers4
DEM-Q2801Q-SR4 • 100GBASE-SR4 QSFP28, Multi-Mode 100 m SR4 transceiver
DEM-Q2810Q-LR4 • 100GBASE-LR4 QSFP28, Single-Mode 10 km LR4 transceiver

Optional 40G QSFP+ Transceivers4
DEM-QX01Q-SR4 • 40GBASE-SR4 Multi-mode, OM3:100M/OM4:150 m
DEM-QX10Q-LR4 • 40GBASE-LR4 Single-mode, 10 km

Optional 10G SFP+ Transceivers4
DEM-431XT • 10GBASE-SR SFP+ transceiver (w/o DDM), 80 m: OM1 & OM2 MMF, 300 m: OM3 MMF
DEM-432XT • 10GBASE-LR SFP+ transceiver (w/o DDM), 10 km
DEM-433XT • 10GBASE-ER SFP+ transceiver (w/o DDM), 40 km
DEM-434XT • 10GBASE-ZR SFP+ transceiver (w/o DDM), 80 km
DEM-436XT-BXU • 10GBASE-LR BiDi SFP+ transceiver (w/o DDM) 20 km, Tx: 1270 nm, Rx: 1330 nm
DEM-436XT-BXD • 10GBASE-LR BiDi SFP+ transceiver (w/o DDM) 20 km, Tx: 1330 nm, Rx: 1270 nm

Optional 1G SFP Transceivers4
DEM-310GT • 1000BASE-LX SFP transceiver, single-mode fiber, 10 km, 3.3 V operating voltage
DEM-311GT • 1000BASE-SX SFP transceiver, multi-mode fiber, 550 m, 3.3 V operating voltage
DEM-312GT2 • 1000BASE-SX SFP transceiver multi-mode fiber, 2 km, 3.3 V operating voltage
DEM-314GT • 1000BASE-LHX SFP transceiver, single-mode fiber, 50 km, 3.3 V operating voltage
DEM-315GT • 1000BASE-ZX SFP transceiver, single-mode fiber, 80 km, 3.3 V operating voltage
DEM-330T • 1000BASE-BX WDM SFP transceiver, single-mode fiber, 10 km, 3.3 V operating voltage, Tx: 1550 nm, Rx: 1310 nm

DEM-330R • 1000BASE-BX WDM SFP transceiver, single-mode fiber, 10 km, 3.3 V operating voltage, Tx: 1310 nm, Rx: 1550 nm
DEM-331T • 1000BASE-BX WDM SFP transceiver, single-mode fiber, 40 km, 3.3 V operating voltage, Tx:1550 nm, Rx: 1310 nm
DEM-331R • 1000BASE-BX WDM SFP transceiver single-mode fiber, 40 km, 3.3 V operating voltage, Tx: 1310 nm, Rx: 1550 nm
DGS-712 • 1000BASE-TX SFP transceiver

Optional 100G QSFP28 Direct Attach Cables
DEM-CB100Q28 • 100G QSFP28 to QSFP28 1 m Direct Attach Cable

Optional 40G QSFP+ Direct Attach Cables
DEM-CB100QXS • 40G QSFP+ to QSFP+ 1 m Direct Attach Cable
DEM-CB300QXS • 40G QSFP+ to QSFP+ 3 m Direct Attach Cable

Optional 10G SFP+ Direct Attach Cables
DEM-CB100S • 10G SFP+ to SFP+ 1 m Direct Attach Cable
DEM-CB300S • 10G SFP+ to SFP+ 3 m Direct Attach Cable
DEM-CB700S • 10G SFP+ to SFP+ 7 m Direct Attach Cable

1 Will be supported in future releases.
2 Based on maximum value of Switch Resource Management (SRM)
3 Table is shared between all multicast functions
4 Only supports full duplex mode

Key Series Features

- 48 x 1/10GbE SFP/SFP+ ports 6 x 40/100GbE QSFP+/QSFP28 ports
- 48 x 1/10GbE Base-T ports 6 x 40/100 GbE QSFP+/QSFP28 ports Two AC/DC hot-swappable power modules for
- 1+1 power redundancy and load sharing
- Hot-swappable fan trays with front-to-back airflow and N+1 cooling redundancy
- Up to 1200G stacking bandwidth with twelve devices functioning together as a single unit
- IEEE 802.1Qbb Priority-based Flow Control (PFC)
- MPLS
- ERPS (G.8032 v1/v2)
- MACSec1 (DXS-3610-54T 10G BASE-T port only)
- OpenFlow v1.3
- IEEE 802.3ah Ethernet link OAM
- IEEE 802.1ag
- ITU-T Y.1731
- Web-based GUI, Command Line Interface (CLI)

Upgradable to Enhanced Image

- L3 Multicasting
- MPLS
- L3 VPN
- L3 Routing

MODEL		DXS-3610-54S	DXS-3610-54T
Interfaces	Ports	• 48 x 1/10GbE SFP/SFP+ ports • 6 x 40/100GbE QSFP+/QSFP28 ports	• 48 x 1/10GbE Base-T ports • 6 x 40/100 GbE QSFP+/QSFP28 ports
	Console Port	RJ-45 console port for out-of-band management	
General Features	Stackability	Physical Stack up to 12 units, Virtual Stacking/Clustering up to 32 units	Physical Stack up to 12 units, Virtual Stacking/Clustering up to 32 units
	Switching Capacity	2.16 Tbps	2.16 Tbps
	Forwarding Mode	1607.04 Mpps	1607.04 Mpps
	Packet Buffer Memory	32 MB	
	MAC Address Table	Up to 288K	
	Flow Control	802.3x, HOL Blocking Prevention	
Layer 2 Features	803.2AX Link Aggregation	Max. 32 groups per device, 12 ports per group	
	Port Mirroring	Supports One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, 4 mirroring groups	
	Flow Mirroring	Supports One-to-One, Many-to-One, Mirroring for Rx, 4 mirroring groups	
	Jumbo Frame	Up to 9416 bytes	
Layer 3 Features	ARP	512 Static ARP	
	IP Interface	Supports 256 interfaces	
	Default Routing	✓	
	Static Routing	Max. 1K IPv4 entries, Max. 512 IPv6 entries, secondary route, Equal Cost/Weighted Cost multi-path route	
Virtual LAN (VLAN)	VLANs	Up to 4096 Static	
	GVRP	Up to 4096 Dynamic	
	Subnet-based VLAN	✓	
	Double VLAN (Q-in-Q)	Port-Based, Selective	
	Port-based VLAN	✓	
	MAC-based VLAN	✓	
	VLAN Group	Max 4K Static VLAN Groups, Max 4094 VIDs	
L3 Multicasting* (/EI)	Table Size	Up to 16K	
	Protocols	IGMP v1, v2c, v3, PIM-SM IPv4/IPv6, PIM-DM, Multicast Source Discovery Protocol (MSDP), PIM-Sparse-Dense Mode, PIM-SSM, DVMRP v3, MLD v1/v2	
Quality of Service (QoS)	Standard	802.1p	
	No. of Queues	8 queues per port	
	Queue handling	Strict, Weighted Round Robin (WRR), Strict + WRR, Round Robin (RR), Weighted Deficit Round Robin (WDRR)	
	QoS based on	802.1p Priority Queues ,DSCP, VLAN, MAC address, IP address, IPv6 Traffic class, IPv6 flow label, TCP/UDP port	
	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 8 Kb/s) Flow-Based (Ingress/Egress, min. granularity 8 Kb/s) Per Queue Bandwidth Control (min. granularity 8 Kb/s)	
Security	Port Security	Up to 12K MAC addresses per port/system	
	Broadcast/Multicast/Unicast Storm Control	✓	
	IPv6 Route Advertisement (RA) Guard	✓	
	DHCP Server Screening	✓	
	IP-MAC-Port Binding	ARP Inspection, IP Source Guard, DHCP Snooping	
	DHCP Server Screening	✓	
	ARP Spoofing Prevention	Max 64 Entries	
	Traffic Segmentation	✓	
	D-Link SafeGuard Engine	✓	
Enhanced Image (EI) Additional Features	L3 Multicasting	Multicast Table Size: up to 16K, IGMP v1, v2c, v3, PIM-SM IPv4/IPv6, PIM-DM, MSDP,PIM-Sparse-Dense Mode, PIM-SSM, DVMRP v3, MLD v1/v2	
	MPLS	Label Distribution Protocol (LDP), Penultimate Hop Popping (PHP), Virtual Private Wire Service (VPWS), Virtual Private LAN Service (VPLS), BGP/MPLS VPN, Multiprotocol extensions for BGP4, Virtual Routing Forwarding (VRF), LSP MPLS Ping/Traceroute	
	L3 VPN	MPLS/BGP L3 VPN, MP-BGP, VRF aware application	
	L3 Routing	BGP v4/v4+, IS-IS, IS-ISv6, VRF Lite, BGPv4, OSPFv2, IPV4 Static Route, RIPv1/2, IP Directed Broadcast, Bidirectional Forwarding Detection (BFD), BGP	
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Supports Port-based access control, supports Host-based access control, Dynamic VLAN Assignment, Identity-driven Policy (VLAN/ACL/QoS) Assignment	
	Access Control	802.1p priority, VLAN, MAC address, EtherType, IP address, DSCP, Protocol type, TCP/UDP port number, IPv6 Traffic Class, IPv6 Flow Label	
	Guest VLAN		
Access Control Lists (ACL)	Max ACL entries	2304 ingress ACL rules, 2K egress ACL rules, 3K VLAN Access Maps	
	Time-Based ACL		
Management	Web-based GUI	✓	
	Command Line Interface (CLI)	✓	
	Telnet, TFTP Client	✓	
	SNMP v1/v2c/v3	✓	
	sFlow	✓	
	RMONv1 / v2	✓	
	OpenFlow v1.3	✓	
	LLDP/LLDP-MED	✓	
Physical and Environment	Power Input	1 + 1 redundant power supply design, Input: 100 to 240 V AC, 50/60 Hz	
	Maximum Power Consumption	320.8 W	330.2 W
	Number of Fans	5	
	Operating Temperature	0℃ to 45℃	
	Operating Humidity	0% to 95% RH Non-Condensing	
	Dimensions (W x D x H)	441.0 x 487.44 x 43.5 mm (17.36 x 19.19 x 1.71 in)	
	Mean Time Between Failures (MTBF)	94,262 hours	
Modules / Transceivers	100G QSFP28 Direct Attach Cables	DEM-CB100Q28	
	40G QSFP+ Direct Attach Cables	DEM-CB100QXS, DEM-CB300QXS	
	10G SFP+ Direct Attach Cables	DEM-CB100S , DEM-CB300S, DEM-CB700S	
	100G QSFP28 Transceivers	DEM-Q2801Q-SR4, DEM-Q2810Q-LR4	
	40G QSFP+ Transceivers	DEM-QX01Q-SR4, DEM-QX10Q-LR4	
	10 Gigabit SFP+ Modules	DEM-431XT, DEM-432XT, DEM-433XT, DEM-434XT , DEM-436XT-BXU, DEM-436XT-BXD	
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712	
	Modular Power Supply and Fan	DXS-PWR700AC • 770 W AC modular power supply with front-to-back airflow DXS-PWR1000DC • 1100 W DC modular power supply with front-to-back airflow DXS-FAN200 • Fan tray with front-to-back airflow	

Layer 3 Stackable 10 G Managed Switches

DXS-3400 Series

D-Link's DXS-3400 Series Layer 3 Stackable 10 GbE Managed Switches are new, compact, high-performance switches that feature wire-speed 10-Gigabit Ethernet switching, routing, and ultra-low latency. The 1U height and high port density make the DXS-3400 Series suitable for enterprise and campus environments where space is at a premium. The DXS-3400 Series switches also include 20 10GBASE-T or 10G SFP+ ports and 4 10GBASE-T/SFP+ combo ports, making them suitable for datacenter, core, and distribution applications. The DXS-3400 Series switches feature a modular fan and power supply design for a high availability architecture. The hot-swappable design means that fans and power supplies can be replaced without affecting switch operation. The DXS-3400 Series switches come with 3 modes: IP Mode, LAN Mode, and L2 VPN Mode, which modify the size of the Layer 2 and 3 tables for optimum efficiency.

Key Series Features

- Two AC/DC hot-swappable power modules for
- 1+1 redundancy and load sharing
- Three hot-swappable fan trays provide N+1 cooling redundancy
- Physical stacking via four 10G ports, can stack up to 4 devices
- Ethernet Ring Protection Switching (ERPS)
- Switch Resource Management (SRM) for flexible management of system resources
- IEEE 802.1Qbb Priority-based Flow Control (PFC)
- IEEE 802.1Qaz Enhanced Transmission Selection (ETS)
- IEEE 802.1Qau Congestion Notification (CN)
- Port mirroring/Bandwidth Control
- Broadcast/Multicast/Unicast storm control
- Single Rate Three Color Marker (srTCM)
- Two Rate Three Color Marker (trTCM)
- RJ-45/Mini-USB console port
- Management and alarm ports
- USB port for firmware and configuration files
- Easy-to-use Web GUI
- Industry-standard CLI

Upgradable to Enhanced Image

- L3 IPv6 Tunneling
- L3 OSPF Routing
- L3 Multicasting

Series include the below models

DXS-3400-24TC
- 10 Gigabit Base-T x 20
- 10 Gigabit Base-T / SFP+ Combo x 4
- Switching capacity of up to 480 Gbps
- Up to 80G stacking bandwidth
- Up to 4 switches in a stack
- Ring/chain topology support
- Hot-swappable power modules for power redundancy and load sharing
- Hot-swappable fan trays with airflow control provide cooling redundancy

DXS-3400-24SC
- 10 Gigabit SFP+ x 20
- 10 Gigabit Base-T / SFP+ Combo x 4
- Switching capacity of up to 480 Gbps
- Up to 80G stacking bandwidth
- Up to 4 switches in a stack
- Ring/chain topology support
- Hot-swappable power modules for power redundancy and load sharing
- Hot-swappable fan trays with airflow control provide cooling redundancy

Optional Products

Optional Software Image Upgrade Licenses
DXS-3400-24SC-SE-LIC   DXS-3400-24SC Standard Image to Enhanced Image license
DXS-3400-24TC-SE-LIC   DXS-3400-24TC Standard Image to Enhanced Image license

Optional Redundant/Replacement Power Supplies
DXS-PWR300AC   300 W AC modular power supply with front-to-back airflow
DXS-PWR300DC   300 W DC modular power supply with front-to-back airflow

Optional Redundant/Replacement Fan Tray
DXS-FAN100   Fan module with front-to-back airflow

Optional 10 Gbps SFP+ Direct Attach Stacking Cables
DEM-CB100S 10 Gigabit SFP+ 1 m Direct Attach Stacking Cable
DEM-CB300S 10 Gigabit SFP+ 3 m Direct Attach Stacking Cable
DEM-CB500S 10-GbE SFP+ 5m Direct Attach Stacking Cable
DEM-CB700S 10-GbE SFP+ 7m Direct Attach Stacking Cable

Optional Management Software
DV-700 D-View 7 Network Management System
DV-800 D-View 8 Network Management System

MODEL		DXS-3400-24TC	DXS-3400-24SC
Interfaces	10 Gigabit Ethernet SFP+	—	20
	10 Gigabit Base-T	20	—
	10 Gigabit Base-T/SFP+ Combo	4	4
General Features	Stackability	Virtual Stacking of up to 32 Units; Physical Stacking of up to 4 Units	Virtual Stacking of up to 32 Units; Physical Stacking of up to 4 Units
	Stacking Speed (per Port)	up to 80 Gbps	up to 80 Gbps
	Switching Capacity	480 Gbps	480 Gbps
	Forwarding Mode	357.12 Mpps	357.12 Mpps
	Packet Buffer Memory	4 MB	
	MAC Address Table	48 K	
	Flow Control	802.3x, HOL Blocking Prevention	
Layer 2 Features	803.2ad Link Aggregation	Max 32 Groups per Device , 8 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, 4 Mirroring Groups	
	Flow Mirroring	One-to-One, Many-to-One, Mirroring for Rx, 4 Mirroring Groups	
	Jumbo Frame	Up to 12,000 Bytes	
Layer 3 Features	ARP	512 Static ARP	
	IP Interface	Supports 256 interfaces	
	Default Routing	✓	
	Static Routing	Max. 256 IPv4 entries, 128 IPv6 Entries, Supports Route Distribution, Supports Secondary Route, Supports Equal Cost/Weighted Cost, Multi-Path Route	
Virtual LAN (VLAN)	VLANs	Up to 4094 Static	
	GVRP	Up to 4094 Dynamic	
	Subnet-based VLAN	✓	
	Double VLAN (Q-in-Q)	Port-Based, Selective	
	Port-based VLAN	✓	
	MAC-based VLAN	✓	
	VLAN Group	Max 4K Static VLAN Groups, Max 4094 VIDs	
Multicasting	Groups	256	
	Protocols	IGMP v1 / v2 / v3, PIM-SM, PIM-DM, PIM Spare-Dense, PIM-SSM, DVMRP v3, MLD v1/v2	
Quality of Service (QoS)	Standard	802.1p	
	No. of Queues	8 per port	
	Mode	Srict/WRR/Strict + WRR/DRR/WDRR	
	CoS Handling	802.1p Priority Queues ,DSCP, VLAN, MAC address, IP address, IPv6 Traffic class, IPv6 flow label, TCP/UDP port	
	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 64 Kb/s) Flow-Based (Ingress/Egress, min. granularity 64 Kb/s) Per Queue Bandwidth Control (min. granularity 64 Kb/s)	
Security	STP Security	BPDU filtering	
	Per-Port MAC Limitation	✓	
	Static MAC	Up to 12K Addresses per Port/System	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding	ARP Inspection, IP Inspection, DHCP Snooping	
	DHCP Server Screening	✓	
	ARP Spoofing Prevention	Max 64 Entries	
	Traffic Segmentation	✓	
	D-Link SafeGuard Engine	✓	
Data Centre Features	DCB Standards Supported	IEEE 802.1Qbb Priority-based Flow Control (PFC), IEEE 802.1Qaz Enhanced Transmission Selection (ETS), IEEE 802.1Qau Congestion Notification (QCN), NLB	
Enhanced Image (EI) Additional Features	L3 Multicasting	Multicast Table Size: 2K, IGMP v1, v2, v3, PIM-SM, PIM-DM, PIM-Sparse-Dense Mode, PIM-SSM, DVMRP v3, MLD v1/v2	
	L3 Features	IPv6 Tunneling (Static, ISATAP, GRE, 6to4), VRRP	
	L3 Routing	Supports 4096K hardware routing entries shared by IPv4/IPv6 (max. 4096K IPv4 entries, max. 1024K IPv6 entries), Supports 32K hardware L3 forwarding entries shared by IPv4/IPv6 (max. 32K IPv4 entries, max. 16K IPv6 entries), RIP (RIP v1/v2, RIPng), OSPF (OSPF v2, OSPF v3, OSPF Passive Interface, Stub/NSSA Area, OSPF Equal Cost Route), BGPv4, Route Redistribution, IP Directed Broadcast, Policy Based Route	
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Supports Port-based access control, supports Host-based access control, Dynamic VLAN Assignment, Identity-driven Policy (VLAN/ACL/QoS) Assignment	
	Access Control	Web-based Access Control (WAC), MAC-based Access Control (MAC)	
	Guest VLAN	✓	
Access Control Lists (ACL)	Max ACL entries	1792 Ingress ACL Rule, 512K Egress ACL Rule, 3K VLAN ACL Rules	
	Time-Based ACL	802.1p Priority, VLAN, MAC Address, Ether Type, IP Address, DSCP, Protocol Type, TCP/UDP Port Number, IPv6 Traffic Class and flow Lable	
Management	Web-based GUI	✓	
	Command Line Interface (CLI)	✓	
	Telnet, TFTP Client	✓	
	SNMP	✓	
	SSH	✓	
	RMON	✓	
	RADIUS/TACACS+	✓	
	LLDP/LLDP-MED	✓	
Physical and Environment	Power Supply	Internal	
	Maximum Power Consumption	159.8 W	118.6 W
	Number of Fans	3	
	Operating Temperature	-5°C to 50°C	
	Operating Humidity	0% to 95% RH Non-Condensing	
	Dimensions (W x D x H)	441 x 44 x 380 mm	
Modules / Transceivers	10 Gigabit SFP+ Modules	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-434XT, DEM-435XT, DEM-435XT-DD, DEM-436XT-BXD, DEM-436XT-BXU	
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT	

Layer 3 Stackable Gigabit Managed Switches

DGS-3630 Series (with 10G Uplinks)

The DGS-3630 Series Layer 3 Stackable Managed Switches are designed for medium to larger sized businesses, large Enterprises, and ISPs. They deliver high performance, flexibility, fault tolerance, and advanced software features for maximum return on investment. With Gigabit Ethernet RJ45 and SFP ports, 10 GbE SFP+ ports, advanced security features, and advanced Quality of Service (QoS), the DGS-3630 Series can act as core, distribution or access layer switches. High port densities, switch stacking, and easy management make the DGS-3630 Series suitable for a variety of applications. The DGS-3630 Series switches include the Standard Image (SI) software, and for additional functionality, they may be upgraded to Enhanced Image (EI) via a separately ordered license upgrade. The Standard Image provides core SMB and SME functionality, such as L2 switching, entry-level routing, L2 multicast, advanced QoS, Operations, Administration, and Maintenance (OAM), and robust security features. The Enhanced Image includes all the features from the Standard Image, and also supports full L3 routing for Enterprise integration, including OSPF, BGP, VRF-Lite and L3 multicast. This approach allows I.T. managers to deploy a lower cost L2/L2+ solution today, and upgrade to a L3 solution in the future if networking needs change and a full dynamic routing solution is required.

Series include the below models

DGS-3630-28TC
- 10/100/1000BASE-T ports x 20
- Combo 10/100/1000BASE-T/SFP ports x 4
- 10 Gigabit SFP+ ports x 4

DGS-3630-28SC
- SFP ports x 20
- Combo 10/100/1000BASE-T/SFP ports x 4
- 10 Gigabit SFP+ ports x 4

DGS-3630-28PC
- 10/100/1000BASE-T ports x 20
- Combo 10/100/1000BASE-T PoE/SFP ports x 4
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget (740 W with DPS-700 RPS)*

DGS-3630-52TC
- 10/100/1000BASE-T ports x 44
- Combo 10/100/1000BASE-T/SFP ports x 4
- 10 Gigabit SFP+ ports x 4

DGS-3630-52PC
- 10/100/1000BASE-T ports x 44
- Combo 10/100/1000BASE-T PoE/SFP ports x 4
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget (740 W with DPS-700 RPS)*

Key Series Features

- Physical stacking up to 9 units, 432 GbE ports
- Supports long-distance stacking over fiber
- 80 Gbps per device physical stacking bandwidth
- 20/44 10/100/1000BASE-T ports or 20 SFP ports
- 4 Combo 10/100/1000BASE-T/SFP ports
- 4 10-Gigabit SFP+ uplink ports
- Switch Resource Management
- (SRM) for flexible management of system resources
- 6 kV surge protection on all RJ45 access ports
- Redundant Power Supply (RPS) support
- IEEE 802.1D/802.1w/802.1s
- Spanning Tree
- Loopback Detection (LBD)
- Ethernet Ring Protection
- Switching (ERPS)
- RJ45/mini-USB console port
- Management and alarm ports
- USB port for firmware and configuration files
- Easy-to-use web GUI
- Industry standard CLI
- IEEE 802.3ah Ethernet First Mile
- (EFM)
- IEEE 802.1ag/ITU-T Y.1731 OAM

Upgradable to Enhanced Image

- Super VLAN
- L3 Routing: BGP, VR F-Lite, OSPF
- L3 Multicasting

Upgradable to MPLS Image

- L3 Routing: IS-IS
- MPLS

Optional Accessories

Optional 10 Gbps SFP+ Direct Attach Stacking Cables
DEM-CB100S   10 Gigabit SFP+ 1 m Direct Attach Stacking Cable
DEM-CB300S   10 Gigabit SFP+ 3 m Direct Attach Stacking Cable
DEM-CB700S   10-GbE SFP+ 7m Direct Attach Stacking Cable

Optional Redundant Power Supplies
DPS-500A   Redundant power supply unit for DGS-3630-28TC , DGS-3630-28SC , DGS-3630-52TC
DPS-500DC   DC Redundant power supply unit for DGS-3630-28TC , DGS-3630-28SC , DGS-3630-52TC
DPS-700   Redundant power supply unit for DGS-3630-28PC , DGS-3630- 52PC

*Revision A2 comply with UL 62368 / EN 62368-1.

MODEL		NON POE			POE	
		DGS-3630-28TC	**DGS-3630-28SC**	**DGS-3630-52TC**	**DGS-3630-28PC**	**DGS-3630-52PC**
Interfaces	Gigabit Ethernet	20	—	44	20 (PoE)	44 (PoE)
	Gigabit SFP Slots	—	20	—	—	—
	Combo 10/100/1000BASE-T/SFP Slots	4	4	4	4 (PoE)	4 (PoE)
	10 Gigabit SFP+ Slots	4	4	4	4	4
General Features	Stackability	Virtual Stacking of up to 32 Units; Physical Stacking of up to 9 Units				
	Stacking Speed	up to 80 Gbps				
	Switching Capacity	128 Gbps	128 Gbps	176 Gbps	128 Gbps	176 Gbps
	Forwarding Mode	Store-and-Forward				
	Packet Buffer Memory	4 MB				
	MAC Address Table	68,000				
	Flow Control	802.3x, HOL Blocking Prevention				
	MDI/MDIX	Configurable				
Layer 2 Features	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS				
	803.2ad Link Aggregation	Maximum 32 Groups per Device. 8 Gigabit Ports or 2 10 Gigabit Ports per Group				
	Port Mirroring	One-to-One, Many-to-One, Flow-Based, RSPAN				
	Loopback Detection	✓				
	Cable Diagnostics	✓				
Layer 3 Features	IP Interfaces	256				
	Routing Protocols	Static, RIP v1/v2, RIPng*, OSPF v2, OSPF v3*, BGP v4*, BGP+ v4*, IS-ISv4/v6**				
	Policy-Based Routing	✓				
	Route Balancing	ECMP/WCMP				
	IPv6 Tunneling	Static*, ISATAP*, GRE*, 6to4*				
	VRRP	✓				
Virtual LAN (VLAN)	VLANs	4096 Static; 4096 Dynamic				
	GVRP	✓				
	Protocol VLAN (802.1v)	✓				
	Double VLAN (Q-in-Q)	Port-Based / Selective				
Multicasting	Groups	8,000				
	Protocols	IGMP V1 / V2 / V3, PIM-SM, PIM-SM v6*, PIM-DM*, PIM Spare-Dense*, DVMRP v3*				
Quality of Service (QoS)	Standard	802.1p				
	Number of Queues	8				
	Mode	Strict / WRR / Strict+WRR / WRED/WDRR				
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IPv4, IPv6, DSCP, Port, Protocol, IPv6 Traffic Class, IPv6 Flow Label, Payload (User-Defined)				
	Bandwidth Control	Port-Based, Flow-Based				
Security	STP Security	BPDU Filtering, Root Restriction				
	Per-Port MAC Limitation	✓				
	Static MAC	Port Security for up to 3328 MAC Addresses for Port/System/VLAN				
	Storm Control	Broadcast / Multicast / Unicast				
	IP-MAC-Port Binding	12,000 Entries				
	DHCP Spoofing Prevention	✓				
	ARP Spoofing Prevention	✓				
	Traffic Segmentation	✓				
	D-Link SafeGuard Engine	✓				
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment				
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic VLAN Assignment				
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment				
	Network Access Protection (NAP)	802.1x NAP, DHCP NAP				
	Guest VLAN	✓				
	Switch Access	RADIUS / TACACS+, 4-Level User Account				
Access Control Lists (ACL)	Max. ACL Entries	Ingress: 4K Egress: 1K, VLAN Access Map Numbers: 3K				
	ACL Handling	Switch Port, VLAN ID, 802.1p, MAC, IPv4, IPv6, DSCP, Port, Protocol, IPv6 Traffic Class, IPv6 Flow Label, Payload (User-Defined)				
	Time-Based ACL	✓				
Power over Ethernet	Standard	—	—	—	802.3af (PoE), 802.3at (PoE+)	802.3af (PoE), 802.3at (PoE+)
	PoE Ports	—	—	—	24	48
	PoE Power Budget	—	—	—	370 W (740 W with DPS-700 RPS)	370 W (740 W with DPS-700 RPS)
	Time-Based PoE	—	—	—	✓	✓
Management	Switch Access	Web GUI, Telnet, Console				
	sFlow	✓				
	SNMP	V1 / V2c / V3				
	DHCP	Server, Client, Relay (IPv4, IPv6)				
	RMON	✓				
	TFTP Client	✓				
	Syslog	✓				
Physical and Environment	Power Supply	Internal				
	Maximum Power Consumption	42.4 W	63.58 W	62 W	469.3 W	485 W
	Power-Saving Technology	Green Ethernet				
	Operating Temperature	-5°C to 50°C				
	Operating Humidity	10% to 95% RH Non-Condensing				
	Dimensions (W x D x H)	441 x 259.8 x 44 mm	441 x 259.8 x 44 mm	441 x 259.8 x 44 mm	441 x 380 x 44 mm	441 x 380 x 44 mm
	Mean Time Between Failures (MTBF)	300,190 Hours	280,612 Hours	263,936 Hours	259,222 Hours	199,929 Hours
Modules / Transceivers	10 Gigabit SFP+ Transceivers	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-434XT, DEM-435XT, DEM-435XT-DD, DEM-436XT-BXD, DEM-436XT-BXU				
	SFP Transceivers	DEM-210, DEM-211, DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT				

Layer 3 Lite Stackable Gigabite Managed Switches

DGS-3130 Series (with 10G Uplinks)

The DGS-3130 Series is an enhanced Layer 3 Lite Stackable Managed Solution designed to connect end-users in a secure SMB or enterprise network, which is perfect for businesses that require a high level of network security and maximum uptime. Its comprehensive security features and PoE support makes it suitable for any business environment where manageability, reliability and high port densities are necessary at an affordable price.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.

Series include the below models

DGS-3130-30TS

- 10/100/1000BASE-T ports x 24
- 10GBASE-T ports x 2
- 10 Gigabit SFP+ ports x 4

DGS-3130-30S

- SFP ports x 24
- 10GBASE-T ports x 2
- 10 Gigabit SFP+ ports x 4

DGS-3130-30PS

- 10/100/1000BASE-T PoE ports x 24
- 10GBASE-T ports x 2
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370W PoE Power Budget
  (740W with DPS-700 RPS)*

DGS-3130-54TS

- 10/100/1000BASE-T ports x 48
- 10GBASE-T ports x 2
- 10 Gigabit SFP+ ports x 4

DGS-3130-54S

- SFP ports x 48
- 10GBASE-T ports x 2
- 10 Gigabit SFP+ ports x 4

DGS-3130-54PS

- 10/100/1000BASE-T PoE ports x 48
- 10GBASE-T ports x 2
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370W PoE Power Budget
  (740W with DPS-700 RPS)*

Key Series Features

- 80G Physical Stacking Bandwidth, up to 9 units
- Optional Redundant Power Supply
- IEEE 802.3x flow control, HOL blocking prevention flow control
- Comprehensive Security
- Supports Microsoft NAP
- sFlow
- Loopback Detection (LBD)
- Link aggregation
- Port mirroring
- 8 queues per port
- DSCP
- 802.1p
- Bandwidth control
- Queue handling
- Time-based QoS
- ERPS multi ring / sub-ring*
- Policy based route*
- IGMP / OSPF*
- Carrier grade OAM 802.1ag / Y.1731 CFM*
- PD Alive*
- ACL expert access group*
- Support in Firmware R1.10

Optional Accessories

Optional Redundant Power Supply
DPS-500A   140 W AC Redundant Power Supply for DGS-3130-30S/TS, DGS-3130-54S/TS
DPS-700   589W Redundant Power Supply for DGS-3130-30PS/54PS

Optional 10 Gbps SFP+ Direct Attach Cables
DEM-CB100S   10 Gigabit SFP+ 1 m Direct Attach Cable
DEM-CB300S   10 Gigabit SFP+ 3 m Direct Attach Cable
DEM-CB700S   10 Gigabit SFP+ 7 m Direct Attach Cable

		NON POE				POE	
MODEL		DGS-3130-30TS	DGS-3130-30S	DGS-3130-54TS	DGS-3130-54S	DGS-3130-30PS	DGS-3130-54PS
Interfaces	Gigabit Ethernet	24		48		24 (PoE)	48 (PoE)
	SFP Slots		24		48		
	10GBASE-T	2	2	2	2	2	2
	10 Gigabit SFP+ Slots	4	4	4	4	4	4
General Features	Stackability	Virtual Stacking of up to 32 Units; Physical Stacking of up to 9 Units					
	Stacking Speed	Up to 80 Gbps full duplex					
	Switching Capacity	168 Gbps	168 Gbps	216 Gbps	216 Gbps	168 Gbps	216 Gbps
	Max Packet Forwarding Rate	125 Mpps	125 Mpps	161 Mpps	161 Mpps	125 Mpps	161 Mpps
	Packet Buffer Memory	2 MB	2 MB	4 MB	4 MB	2 MB	4 MB
	MAC Address Table	16,000					
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention					
	Jumbo Frame	9216 Bytes					
Layer 2 Features	Loop Protection	802.1D, 802.1w, 802.1s, ERPS					
	802.3ad Link Aggregation	32 Groups, 8 Gigabit Ports per Group					
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, Flow-Based (ACL) Mirroring, RSPAN					
	Loopback Detection	✓					
	Cable Diagnostics	✓					
Layer 3 Features	IP Interfaces	16					
	Routing Protocols	Static, RIP v1/v2, RIPng					
	Policy-Based Routing	✓					
	VRRP	✓					
Virtual LAN (VLAN)	VLANs	4096 Static					
	GVRP	4000 Dynamic					
	Protocol VLAN (802.1v)	✓					
	Double VLAN (Q-in-Q)	Port-Based / Selective					
Layer 2 Multicasting	Groups	1024					
	Protocols	IGMP Snooping v1/v2/v3, MLD Snooping v1/ v2					
Quality of Service (QoS)	Standard	802.1p, DSCP					
	Number of Queues	8					
	Mode	Strict / WRR / Strict+WRR / DRR					
	CoS Handling	VLAN ID, 802.1p Priority Queue, MAC, IPv4/v6 Address, Ether Type, DSCP, TCP/UDP Port, Protocol Type, IPv6 Traffic Class, IPv6 Flow Label, User-Defined Packet Content					
	Bandwidth Control	Flow-Based (Ingress, min. granularity 8 kbps), Port-Based (Ingress / Egress min.granularity 8 kbps)					
Security	STP Security	BPDU Filtering, Root Restriction					
	Port Security	✓					
	DoS Attack Prevention	✓					
	Storm Control	Broadcast / Multicast / Unicast					
	IP-MAC-Port Binding	✓					
	DHCP Server Screening	✓					
	ARP Spoofing Prevention	✓					
	Traffic Segmentation	✓					
	D-Link SafeGuard Engine	✓					
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN/ACL/QoS Assignment					
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic VLAN/ACL/QoS Assignment					
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN/ACL/QoS Assignment					
	Network Access Protection (NAP)	802.1x, NAP, DHCP NAP					
	Guest VLAN	✓					
	Switch Access	RADIUS / TACACS+, 4-Level User Account					
Access Control Lists (ACL)	Rules	Ingress ACL: 8 Profiles, 2048 Rules per Profile; Egress ACL: 4 Profiles, 512 Rules per Profile					
	ACL Handling	Ether Type, VLAN ID, 802.1p Priority, MAC, IPv4/v6 Address, DSCP, TCP/UDP Port, Protocol Type, IPv6 Traffic Class, IPv6 Flow Label, User-Defined Packet Content					
	Time-Based ACL	✓					
Power over Ethernet	Standard					802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
	PoE Ports					24	48
	PoE Power Budget					370 W (740 W with DPS-700 RPS)	370 W (740 W with DPS-700 RPS)
	Time-Based PoE					✓	✓
Management	Switch Access	Web GUI, CLI, Telnet, Console					
	sFlow, TFTP Client, Syslog	✓					
	SNMP	v1 / v2c / v3					
	DHCP	Server, Client, Relay					
	RMON	v1 / v2					
Physical and Environment	Power Supply	Internal with RPS Option					
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet					
	Operating Temperature	0°C to 50°C					
	Operating Humidity	10% to 90% RH Non-Condensing					
	Dimensions (W x D x H)	440 x 250 x 44 mm	441 x 250 x 44 mm	441 x 290 x 44 mm	441 x 350 x 44 mm	441 x 350 x 44 mm	441 x 350 x 44 mm
Modules / Transceivers	10 Gigabit SFP+ Transceivers	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-434XT, DEM-435XT, DEM-435XT-DD, DEM-436XT-BXU, DEM-436XT-BXD					
	SFP Transceivers	DEM-210, DEM-211, DEM-220T, DEM-220R, DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712					

Metro Ethernet Gigabit Layer 2 Managed Switches

DGS-3000 Series (with 10G Uplinks*)

The DGS-3000 Series Managed Gigabit Switches are part of the Layer 2+ family of D-Link's managed switch product line that provides wired Gigabit speeds for Metro Ethernet and campus networks. They feature a variety of ports, including 10/100/1000BASE-T RJ-45 ports, 1G SFP ports, and 10G SFP+ ports for increased network bandwidth. DGS-3000 Series supports up to 6 kV surge protection on all Ethernet ports, advanced Layer 2+ functions, and a suite of security and management tools make the DGS-3000 Series Managed Gigabit Switches ideal for Metro Ethernet and campus applications. The DGS-3000 Series Managed Gigabit Switches come with a variety of port types, including 1 G RJ-45 ports, 1 G SFP ports, and 10G SFP+ ports, with all models offering a minimum of at least 2 1 G SFP ports. The DGS-3000-28X, DGS-3000-28XS, and DGS-3000-52X offer 4 10G SFP+ ports for improved bandwidth and fault tolerance. The DGS-3000-28LP and DGS-3000-28XMP switches feature Power over Ethernet (PoE), allowing compatible devices to be installed in remote locations without immediate access to power outlets.

Series include the below models

DGS-3000-10L
- 10/100/1000BASE-T port X 8
- SFP port x 2
- 11 inch,1U rack mount
- Fanless

DGS-3000-20L
- 10/100/1000BASE-T port X 16
- SFP port x 4
- 11 inch,1U rack mount
- Fanless

DGS-3000-28L
- 10/100/1000BASE-T port X 24
- SFP port x 4
- 19 inch,1U rack mount
- Fanless

DGS-3000-28LP
- 10/100/1000BASE-T PoE port X 24
- SFP port x 4 IEEE 802.3af/802.3at
- 193W PoE Power Budget
- 19 inch,1U rack mount
- 2 x Smart Fan

DGS-3000-28X
- 10/100/1000BASE-T port X 24
- 10G SFP+ port x 4
- 19 inch,1U rack mount
- Smart Fan

DGS-3000-28XMP
- 10/100/1000BASE-T PoE port X 24
- 10G SFP+ port x 4
- IEEE 802.3af/802.3at
- 370W PoE Power Budget
- 19 inch,1U rack mount
- 2 x Smart Fan

DGS-3000-28XS
- SFP port x 24
- 10G SFP+ port x 4
- 19 inch,1U rack mount
- 2 x Smart Fan

DGS-3000-52L
- 10/100/1000BASE-T port X 48
- SFP port x 4
- 19 inch,1U rack mount
- 2 x Smart Fan

DGS-3000-52X
- 10/100/1000BASE-T port X 48
- 10G SFP+ port x 4
- 19 inch,1U rack mount
- 2 x Smart Fan

Optional Accessories

Optional 10 Gigabit Ethernet SFP+ Direct Attach Cables (DGS-3000-28X, 28XMP, 28XS, and 52X only)
- DEM-CB100S 10G SFP+ 1 m Direct Attach Cable
- DEM-CB300S 10G SFP+ 3 m Direct Attach Cable
- DEM-CB700S 10G SFP+ 7 m Direct Attach Cable

Optional Redundant Power Supplies
- DPS-500A 140 W Redundant Power Supply (Alternating Current)
- DPS-500DC 140 W Redundant Power Supply (Direct Current)
- DPS-CB150-2PS v.B1 150 cm RPS cable for connecting the DGS-3000 Series with the DPS-500A and DPS-500DC

Optional Management Software
DV-700 D-View 7 Network Management System
DV-800 D-View 8 Network Management System

Key Series Features

- 6 kV surge protection for Ethernet ports
- Real Time Clock (RTC)
- Dying Gasp
- Ethernet Ring Protection Switching (ERPS)
- Redundant Power Supply (RPS) support
- VLAN trunking
- VLAN mirroring
- ISM VLAN (Multicast VLAN)
- RSPAN
- Access Control Lists (ACLs)
- D-Link Safeguard Engine
- BPDU attack protection
- ARP spoofing prevention
- IP-MAC-Port Binding
- DoS attack prevention
- IEEE 802.1X port-based Access Control
- WAC/MAC-based Access Control
- Guest VLAN
- 802.1ag CFM
- 802.3ah Ethernet Link OAM
- SNMP v1/v2c/v3
- RMON v1/v2
- LLDP/LLDP-MED

					NON POE
MODEL		DGS-3000-10L	DGS-3000-20L	DGS-3000-28L	DGS-3000-28X
Interface	Gigabit Ethernet	8	16	24	24
	SFP Slots	2	4	4	—
	10 Gigabit Slots SFP+	—	—	—	4
General Features	Stackability				
	Stacking Speed (per Port)				
	Switching Capacity	20 Gbps	40Gbps	56Gbps	128Gbps
	Forwarding Mode				
	Packet Buffer Memory				
	MAC Address Table				
	Flow Control				
	MDI/MDIX				
Layer 2 Features	Loop Protection				
	803.2ad Link Aggregation				
	Port Mirroring				
	Loopback Detection				
	Cable Diagnostics				
Virtual LAN (VLAN)	VLANs				
	GVRP				
	Protocol VLAN (802.1v)				
	Double VLAN (Q-in-Q)				
Multicasting	Groups				
	Protocols				IGMP
Quality of Service (QoS)	Standard				
	No. of Queues				
	Mode				Strict
	CoS Handling			802.1p Priority Queues, VLAN ID, MAC Address, Ether Type,	
	Bandwidth Control				
Security	STP Security				
	Per-Port MAC Limitation				
	Static MAC				
	Storm Control				
	IP-MAC-Port Binding				
	DHCP Server Screening				
	ARP Spoofing Prevention				
	Traffic Segmentation				
	D-Link SafeGuard Engine				
Power over Ethernet	Standard	—	—		—
	PoE Ports	—	—		—
	PoE Power Budget	—	—		—
Management	Switch Access				
	sFlow				
	SNMP				
	DHCP				
	RMON				
	TFTP Client				
	Syslog				
Physical and Environment	Power Supply				
	Maximum Power Consumption	13.6 W	15.6W	17.6W	220.1W
	No of Fans	Fanless	Fanless	Fanless	1
	Operating Temperature				
	Operating Humidity				
	Dimensions (W x D x H)	280 x 140 x 44 mm	280 x 140 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm
	Mean Time Between Failures (MTBF)	841,608 Hours	762,952 Hours	635,099 Hours	652,062 Hours
Modules/ Transceivers	SFP Transceivers				
	10GbE SFP+ Transceivers				DEM-431XT, DEM-431XT-DD, DEM-432XT,
	WDM SFP Transceivers				

	DGS-3000-28XS	DGS-3000-52L	DGS-3000-52X	DGS-3000-28LP	DGS-3000-28XMP
				POE	
	—	48	48	24 (PoE)	24 (PoE)
	24	4	—	4	—
	4	—	4	—	4
Virtual Stacking of up to 32 Units					
—					
	128Gbps	104Gbps	176Gbps	56Gbps	128Gbps
Store-and-Forward					
1.5 MB					
16,000					
IEEE 802.3x Flow Control, HOL Blocking Prevention					
Configurable					
802.1D, 802.1w, 802.1s, ERPS					
802.3ad 802.1AX					
One-to-One, Many-to-One, Flow-based (ACL) Mirroring					
✓					
✓					
4K					
✓					
✓					
✓					
1024					
v1/v2 snooping, v3 awareness, MLD v1, v2 awareness					
DSCP, 802.1p					
8					
Priority Queue (SPQ), Weighted Round Robin (WRR), SPQ + WRR					
IPv4/v6 Address, IPv6 Traffic Class, IPv6 Flow Label, DSCP, Protocol Type, TCP/UDP Port, User-Defined Packet Content					
Port-Based, Host-Based, Dynamic VLAN assignment					
BPDU Filtering, Root Restriction					
✓					
512					
✓					
✓					
✓					
✓					
✓					
✓					
	—	—		802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
	—	—		24	24
	—	—		193W	370W
Web GUI, Telnet, SSH, Console					
✓					
✓					
✓					
✓					
✓					
✓					
Internal					
	53.4W	39.0W	40.7W	246.5W	445.2W
	2	2	2	2	2
-5°C to 50°C					
10% to 95% RH Non-Condensing					
	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 308 x 44 mm
	574,974 Hours	501,290 Hours	465,240 Hours	304,565 Hours	268,693 Hours
DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT					
DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-435XT, DEM-435XT-DD, DEM-436XT-BXU, DEM-436XT-BXD					
DEM-330T, DEM-330R, DEM-331T, DEM-331R					

Layer 3 Stackable Gigabit Smart Managed Switches

DGS-1520 Series (with 2.5G PoE + 10G Uplinks)

The DGS-1520 Series, a new generation Layer 3 Stackable Smart Managed Switches, includes four 10 GB ports for uplink or stacking up to a total of eight switches with a total of 80 Gigabit stacking bandwidth. 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 2.5 GB Base-T ports for Multi-Gigabit connectivity. For SMBs with expanding networks and significant bandwidth growth, the DGS-1520 effortlessly adds highly cost-effective 10 GB connectivity to ensure seamless aggregation between access and core layers.

Key Series Features

- 24 or 48 x 10/100/1000Base-T ports
- 20 or 44 x 10/100/1000Base-T PoE and 4 x 2.5GBase-T PoE
- 2 x 10GBase-T and 2 x SFP+ uplink ports
- Physical Stacking of up to 8 units
- 2 x 10GBase-T and/or 2 x SFP+
- 80 Gbps physical stacking bandwidth
- Hybrid Stacking
- RSPAN
- Selective Q-in-Q
- IGMP v1/v2/v3
- MLD v1/v2
- PIM-SM/DM/SSM
- Static Route
- RIP/RIPng
- OSPF
- Ethernet Ring Protection Switching (ERPS)
- Virtual Router Redundancy Protocol (VRRP)
- Redundant Power Supply (RPS) support
- D-View 7
- D-Link Network Assistant (DNA)
- Zero Touch Provisioning (ZTP)

Copper Stacking

Hybrid Stacking

Fiber Stacking

2.5G Ports

Series include the below models

DGS-1520-28

- 10/100/1000 Base-T ports x 24
  10G Base-T ports x 2
  10G SFP+ ports x 2

DGS-1520-28MP

- 10/100/1000 Base-T PoE ports x 20
  2.5G Base-T PoE ports x 4
  10G Base-T ports x 2
  10G SFP+ ports x 2
- 370W, 740W (with RPS)

• DGS-1520-52

- 110/100/1000 Base-T ports x 48
  10G Base-T ports x 2
  10G SFP+ ports x 2

DGS-1520-52MP

- 10/100/1000 Base-T PoE Ports x 44
  2.5G Base-T PoE Ports x 4
  10G Base-T Ports x 2
  10G SFP+ Ports x 2
- 370W, 740W (with RPS)

Optional Products

DEM-Optional SFP Transceivers
310GT 1000BASE-LX, single-mode, 10 km
DEM-311GT 1000BASE-SX, multi-mode, 550 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
DGS-712 1000BASE-T to SFP transceiver

Optional WDM SFP Transceivers
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

Optional SFP+ Transceivers
DEM-431XT 10GBASE-SR Multi-mode, OM1:33M/OM2:82M/OM3:300M (w/o DDM)
DEM-432XT 10GBASE-LR Single-mode, 10 km (w/o DDM)
DEM-433XT 10GBASE-ER Single-mode, 40 km (w/o DDM)
DEM-434XT 10GBASE-ZR Single-mode, 80 km (w/o DDM)
DEM-436XT-BXD 10GBASE-LR Single-mode, 20 km (TX-1330/RX-1270 nm) (w/o DDM)
DEM-436XT-BXU 10GBASE-LR Single-mode, 20 km (TX-1270/RX-1310 nm) (w/o DDM)

Optional SFP+ Direct Attach Stacking Cables
DEM-CB100S 1 m 10G SFP+ Direct Attach Cable (DAC)
DEM-CB300S 3 m 10G SFP+ Direct Attach Cable (DAC)
DEM-CB700S 7 m 10G SFP+ Direct Attach Cable (DAC)

Optional Redundant Power Supplies
DPS-520 PoE Redundant Power Supply for Non-PoE Models only
DPS-700 AC Redundant Power Supply for PoE Models only

D-Link DGS-1520 Series Multi-Gigabit Smart Managed Switch

01. **Stackable Scalability**

The DGS-1520 Series feature four 10-Gigabit ports (two 10GBASE-T & two SFP+) for high-speed uplink or stacking up to eight DGS-1520 switches with a total of 80G stacking bandwidth using hybrid mode (copper and fiber). SMBs can quickly add cost-effective 10 Gigabit aggregation to the network infrastructure with flexible stacking scalability.
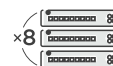
02. **Multi-Gigabit & PoE**

PoE models of the DGS-1520 Series provide power (up to a total of 370W per switch, or 740W with the DPS-700 redundant power supply) to PoE-enabled devices and offer the convenience of 4 multi-Gigabit ports to accommodate Wi-Fi 6 (802.11ax) access points or network services that require more than Gigabit bandwidth, such as video surveillance systems.

03. **Zero Touch Provisioning**

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.

04. **Simplified Central Management**

Remotely manage multiple wired/wireless networks with the D-View 7 management platform from one central location to reduce maintenance costs. D-Link Network Assistant (DNA) is also available to easily set up and manage smaller networks.
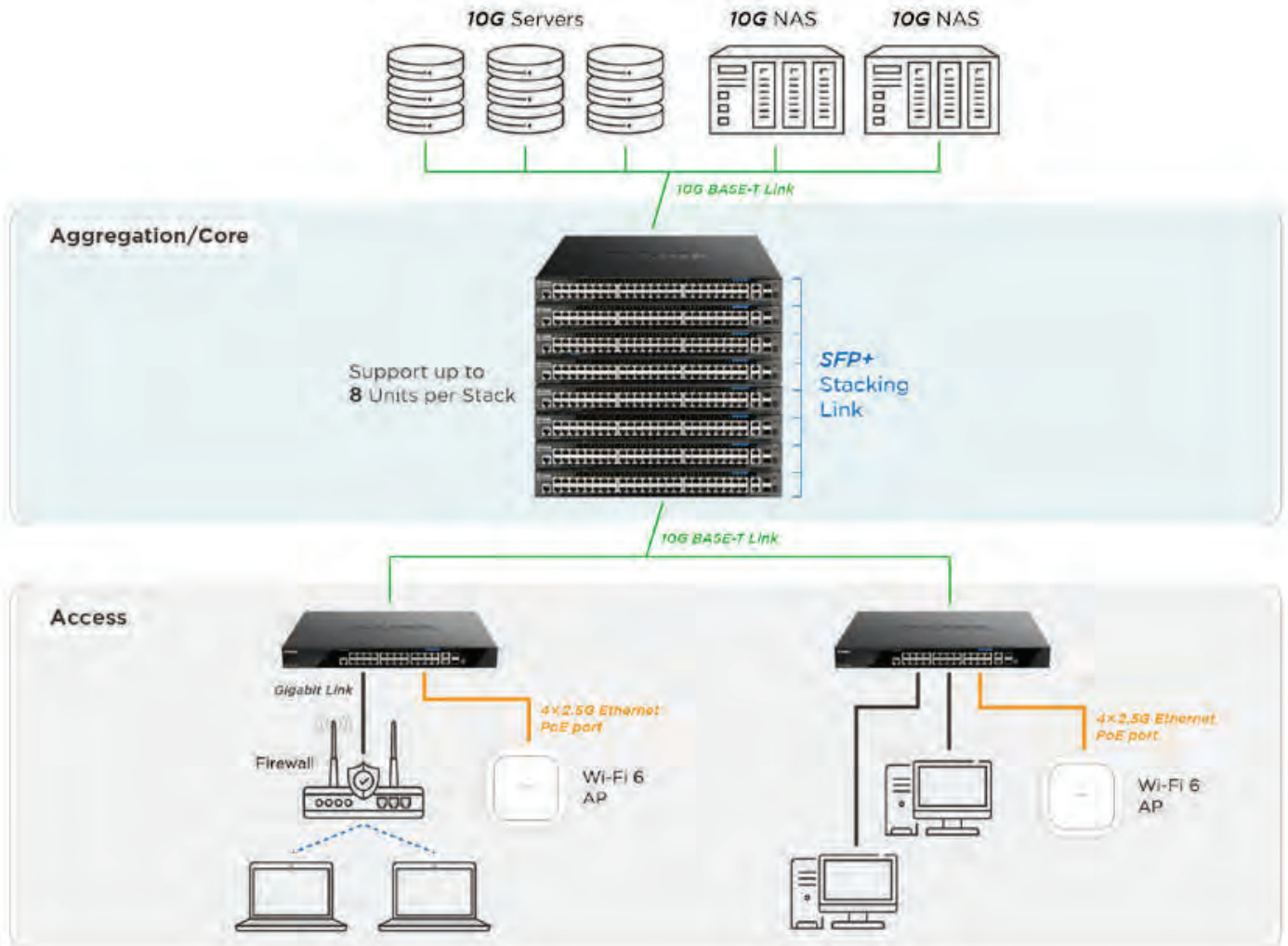
05. **Power Redundancy**

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 redundant power supply is immediately triggered to maintain uninterrupted operation of the LAN switch and its connected devices for a more resilient network infrastructure.

D-Link DGS-1520 Series Multi-Gigabit Smart Managed Switch (Cont'd)

MODEL		DGS-1520-28 (NON POE)	DGS-1520-28MP (POE)	DGS-1520-52 (NON POE)	DGS-1520-52MP (POE)
Interfaces	Gigabit Ethernet	24	24 (PoE)	48	48 (PoE)
	10GBase-T Port	2	2	2	2
	1000Base-T PoE Port	-	20	-	44
	2.5Base-T PoE Port	-	4	-	4
	10G SFP+ Slot	2	2	2	2
	Console Port			RJ-45	
	RJ-45 Management Port	Yes (DPS-520 only)	-	Yes (DPS-520 only)	-
General Features	Stackability		Physical Stacking of up to 8 units		
	Physical Stacking Bandwidth		80G		
	Hybrid Stacking		10GBase-T and SFP+		
	Switching Capacity	128Gbps	140Gbps	176Gbps	188Gbps
	Max. Packet Forwarding Rate	95.24 Mpps	104.16 Mpps	130.95 Mpps	139.88 Mpps
	Forwarding Mode		Store-and-forward		
	MAC Address Table		16,000		
	Jumbo Frame		12288 Byte		
	Flow Control		802.3x,HOL Blocking Prevention		
	MDI/MDIX		Configurable		
Layer 2 Features	Loopback Detection (LBD)		✓		
	802.3ad Link Aggregation		✓		
	Port Mirroring		✓		
	L2 Protocol Tunneling		✓		
	IGMP Snooping		✓		
	Cable Diagnostics		✓		
L2 Multicast	IGMP Snooping		IGMP v1/v2/v3 Snooping, Supports 512 IGMP groups, Host-based IGMP Snooping Fast Leave, Supports 128 static IGMP groups, Per VLAN IGMP Snooping, Data Driven Learning, IGMP Snooping Querier, Report Suppression		
	MLD Snooping		MLD v1/v2 Snooping, Support 256 MLD Groups, Host-based MLD Snooping Fast Leave, Supports 64 static MLD groups, MLD Snooping Querier, Per VLAN MLD Snooping, MLD Proxy Reporting		
Layer 3 Features	IP Interface		16		
	IPv4 Entries / Static ARP		8192/256		
	Gratuitous ARP		✓		
	Loopback interface		✓		
	VRRP v2/v3		✓		
layer 3 Routing	Hardware routing		1024		
	IPv4/IPv6 Static route		512/256		
	IPv4/IPv6 Default route		✓		
	Equal-Cost Multi-Path Route (ECMP)		✓		
	Weighted-Cost Multi-Path Route (WCMP)		✓		
	Policy-based Route (PBR)		✓		
	Route Preference		✓		
	Route Redistribution		✓		
	RIPv1/v2/ng		✓		
	OSPF		OSPF v2/v3, OSPF passive interface, Stub/NSSA area, Supports Equal-Cost Multi-Path Route (ECMP), Text/MD5 authentication		
L3 Multicasting	L3 Multicasting		IGMP v1/v2/v3, IGMP Proxy, MLD v1/v2, MLD proxy, DVMRP v3, PIM Sparse-Dense Mode (PIM-SDM), PIM-SM/DM/SSM for IPv4/IPv6		
Virtual LAN (VLAN)	VLAN Group		4K		
	VID		1~4094		
	Double VLAN (Q-in-Q)		Port-based Q-in-Q		
	Selective Q-in-Q		✓		
	802.1Q		✓		
	Auto Surveillance VLAN		✓		
	Port-based VLAN		✓		
	802.1v Protocol-based VLAN		✓		
	Voice VLAN		✓		
	MAC-based VLAN		✓		
	Subnet-based VLAN		✓		
	VLAN translation		✓		
	Multicast VLAN (ISM VLAN for IPv4/IPv6)		✓		
	Asymmetric VLAN		✓		
	Private VLAN		✓		
	VLAN Trunking		✓		
	Super VLAN		✓		
Quality of Service (QoS)	802.1p		✓		
	Queue Handling		Strict Priority, Weighted Round Robin (WRR), Strict + WRR, Weighted Deficit Round Robin (WDRR)		
	CoS based on		Switch port, Inner/Outer VID, Inner/Outer 802.1p Priority, MAC address, Ether type, IP address, DSCP, ToS/IP preference, Protocol type, TCP/UDP port, IPv6 traffic class, IPv6 flow label		
	Bandwidth Control		"Port-based (ingress/egress), min. granularity 8 Kbps; Flow-based (ingress/egress, min. granularity 8 Kbps); Per queue bandwidth control (min. granularity 8 Kb/s)"		
	Three Color Marker		CIR/PIR minimum granularity: 8 kbps, trTCM, srTCM		
Security	Port Security		Supports up to 64 MAC addresses per port		
	D-Link Safeguard Engine		✓		
	DHCP Server Screening		✓		
	IP Source Guard		✓		
	DHCP Snooping		✓		
	IPv6 Snooping		✓		
	Dynamic ARP Inspection (DAI)		✓		
	DHCPv6 Guard		✓		
	IPv6 Route Advertisement (RA) Guard		✓		
	IPv6 ND Inspection		✓		
	Duplicate Address Detection (DAD)		✓		
	ARP Spoofing Prevention		Max. 64 entries		
	L3 Control Packet Filtering		✓		
	Unicast Reverse Path Forwarding (URPF)		✓		
	Traffic Segmentation		✓		
	SSL		"TLS 1.0/1.1/1.2, IPv4/IPv6 access		
	SSH		SSH v2, Supports IPv4/IPv6 access		
	BPDU Attack Protection		Yes		
	DOS Attack Prevention		Yes		
Authentication, Authorisation and Accounting (AAA)	Guest VLAN		✓		
	802.1X Authentication		Port/host-based access control, Identity-driven Policy Assignment, Dynamic VLAN Assignment		
	Web-based Access Control (WAC)		Port/host-based access control, Identity-driven Policy Assignment, Dynamic VLAN Assignment		
	MAC-based Access Control (MAC)		Port/host-based access control, Identity-driven Policy Assignment, Dynamic VLAN Assignment		
	RADIUS and TACACS+ Authentication		✓		
	Authentication Database Failover		✓		
	Compound Authentication		✓		
	Privilege Level for Management Access		✓		
	Trusted Host		✓		
	RADIUS/TACACS+ Accounting		✓		
Access Control Lists (ACL)	ACL based on		802.1p priority, VID, MAC address, Ether Type, LLC, VLAN, IP address, IP preference/ToS, DSCP mask, Protocol type, TCP/UDP port number, IPv6 Traffic Class, IPv6 Flow Label		
	Time-based ACL		✓		
	CPU Interface Filtering		✓		
	Max. ACL entries		Ingress (hardware entries): 1536 / Egress (hardware entries): 512 / VLAN Access Map Numbers: 2048		
Management	Web-Based GUI		IPv4/IPv6 access, SSL (HTTPS)		
	CLI		✓		
	sFlow		✓		
	SNMP		✓		
	DHCP		✓		
	RMON		✓		
	TFTP		✓		
	D-Link Discover Protocol (DDP)		✓		
	SMTP		✓		
	Zero Touch Provisioning (ZTP)		✓		
Physical and Environment	Dimension	441 x 207.4 x 44 mm	441 x 308.5 x 44 mm	441 x 207.4 x 44 mm	441 x 308.5 x 44 mm
	Weight	2.33 Kg	4.29 Kg	2.78 Kg	4.80 Kg
	Operation Temperature	-5 ~ 50℃	-5 ~ 50℃	-5 ~ 50℃	-5 ~ 50℃
	Storage Temperature	-40 ~ 70℃	-40 ~ 70℃	-40 ~ 70℃	-40 ~ 70℃
	Operation Humidity	10% ~ 95% RH	10% ~ 95% RH	10% ~ 95% RH	10% ~ 95% RH
	Storage Humidity	5% ~ 95% RH	5% ~ 95% RH	5% ~ 95% RH	5% ~ 95% RH
	Operating Altitude	Up to 2000 m	Up to 2000 m	Up to 2000 m	Up to 2000 m
	Maximum Power Consumption	30.4W	453.3W (PoE On); 45.2W (PoE Off)	51.2W	459.5W (PoE On); 66.3W (PoE Off)
	Standby Power Consumption	20.9W/100V; 21.5W/240V	37.2W/100V; 37.3W/240V	25.5W/100V; 26.8W/240V	39.8W/100V; 40.7W/240V
	Power Input	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC
	Redundant Power Supply	DPS-520	DPS-700	DPS-520	DPS-700
	Maximum PoE Budget	-	370W (w/o RPS); 740W (w/ RPS)	-	370W (w/o RPS); 740W (w/ RPS)
Modules/ Transceivers	SFP transceivers		DEM-310GT, DEM-311GT , DEM-312GT2 , DEM-314GT, DEM-315GT , DGS-712		
	WDM SFP Transceivers		DEM-330T, DEM-330R , DEM-331T , DEM-331R		
	SFP+ Transceivers		DEM-431XT , DEM-432XT, DEM-433XT, DEM-434XT, DEM-436XT-BXD, DEM-436XT-BXU		
	Direct Attach Stacking Cables		DEM-CB100S, DEM-CB300S, DEM-CB700S		
	Redundant Power Supplies		DPS-520 PoE Redundant Power Supply for Non-PoE Models only, DPS-700		

Layer 2+ Stackable Gigabit Smart Managed Switches

DGS-1510 Series (with 10G Uplinks)

With up to 48 1000BASE-T ports, two Gigabit SFP ports and two 10 Gigabit SFP+ ports, along with PoE support, the DGS-1510 Series is ideal for deployment in an SME/SMB core. Add to that the 10 Gigabit uplinks to connect with servers equipped with 10G port connectivity, and the DGS-1510 serves as a good interconnection between the core switch and edge switch for medium- to large-scale enterprise deployment.

If you're looking for PoE capability, the DGS-1510-28P is your perfect partner for powering VoIP phones, wireless access points or network cameras, thanks to 24 Power over Ethernet-enabled ports that can support up to 193 W of power output following the enhanced IEEE 802.3at PoE+ standard. This switch therefore offers the ideal balance between flexibility in power allocation for a variety of powered devices and affordable installation costs.

Key Series Features

- 10 Gigabit connectivity
- Physical stacking via two 10 Gigabit ports, with stacking for up to six devices
- Single IP management (virtual stacking of up to 32 units)
- Static routing
- IPv6 management support
- Auto surveillance VLAN
- Auto voice VLAN
- Loopback Detection (LBD)
- Configurable MDI/MDIX
- LLDP/LLDP-MED
- Access Control List (ACL)
- D-Link SafeGuard Engine
- Port security
- ARP spoofing prevention
- IP-MAC-port binding
- DoS attack prevention
- D-Link Network Assistant Utility or multi-language web-based GUI
- Built-in SNMP MIB for remote NMS (D-View 7)
- Full CLI via console port
- IPv4/IPv6 stack
- Dual image
- IEEE 802.3az Energy Efficient Ethernet
- D-Link Green™ 3.0 power-saving features

Series include the below models

DGS-1510-20
- 10/100/1000BASE-T ports x 16
- SFP ports x 2
- 10 Gigabit SFP+ ports x 2
- Smart fan

DGS-1510-28
- 10/100/1000BASE-T ports x 24
- SFP ports x 2
- 10 Gigabit SFP+ ports x 2
- Smart fans

DGS-1510-28P
- 10/100/1000BASE-T PoE ports x 24
- SFP ports x 2
- 10 Gigabit SFP+ ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 193 W PoE power budget
- Smart fans

DGS-1510-52
- 10/100/1000BASE-T ports x 48
- SFP ports x 2
- 10 Gigabit SFP+ ports x 2
- Smart fans

DGS-1510-28XMP
- 10/100/1000BASE-T PoE port x 24
- 10GbE SFP+ ports x 4
- 802.3af and 802.3at PoE/PoE+ support
- 370W PoE power budget Smart fans

DGS-1510-28X
- 10/100/1000BASE-T port x 24
- 10G SFP+ Ports x 4
- Smart fan

DGS-1510-28XS
- SFP ports x 24
- 10G SFP+ ports x 4
- Smart Fan

Optional Accessories

Optional 10 Gbps SFP+ Direct Attach Stacking Cables
DEM-CB100S   10 Gigabit SFP+ 1 m Direct Attach Stacking Cable
DEM-CB300S   10 Gigabit SFP+ 3 m Direct Attach Stacking Cable
DEM-CB700S   10-GbE SFP+ 7m Direct Attach Stacking Cable

Optional Management Software
DV-700   D-View 7 Network Management System
DV-800   D-View 8 Network Management System

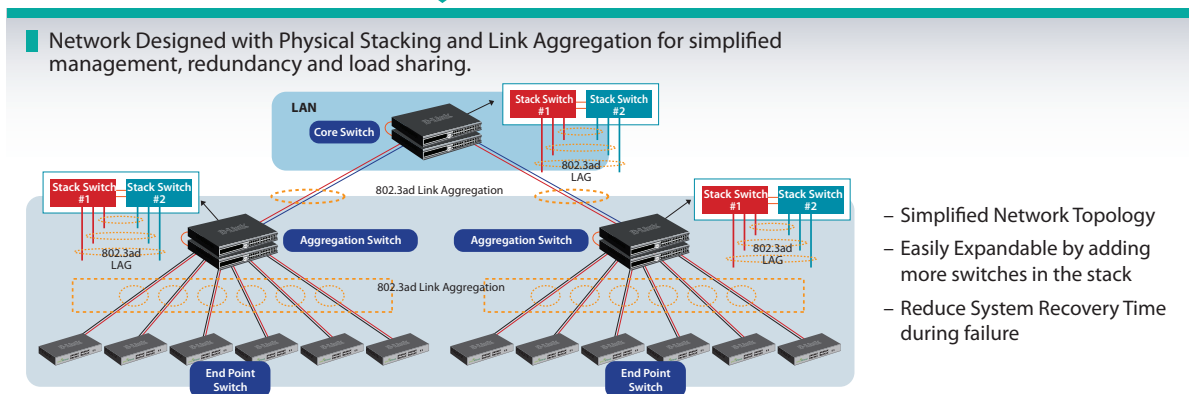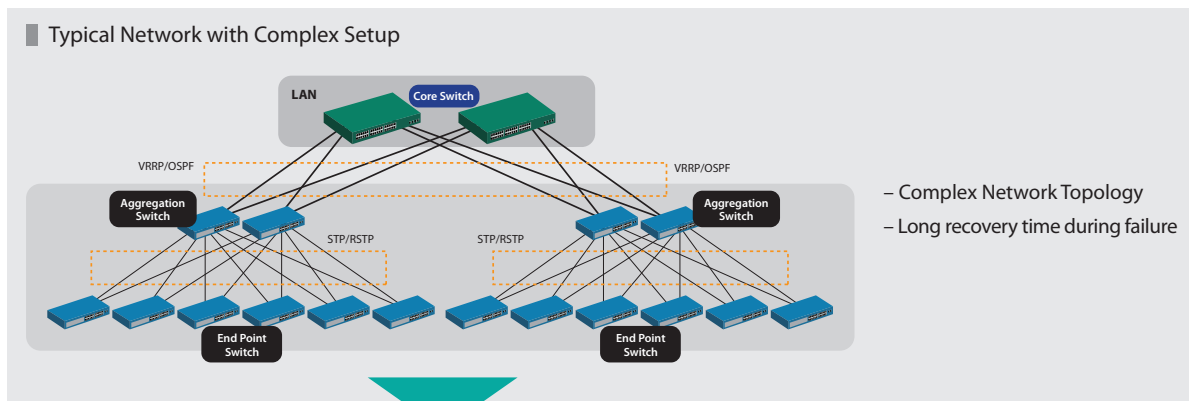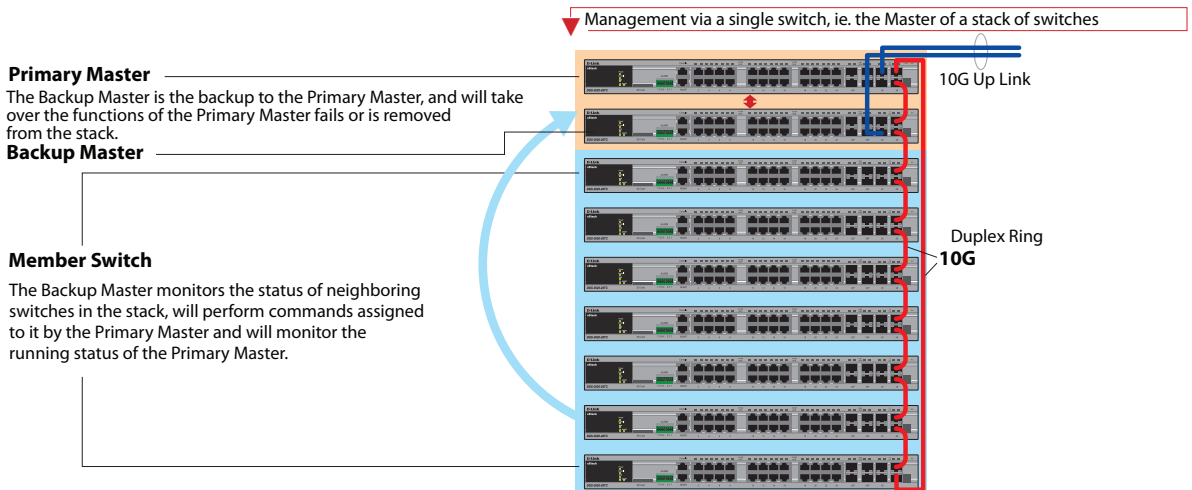|		NON POE				POE		
MODEL		**DGS-1510-20**	**DGS-1510-28X**	**DGS-1510-28XS**	**DGS-1510-52X**	**DGS-1510-28P**	**DGS-1510-28XMP**	**DGS-1510-52XMP**
Interfaces	Gigabit Ethernet	16	24	—	48	24 (PoE)	24 (PoE)	48 (PoE)
	SFP Slots	2	—	24	—	2	—	—
	10 Gigabit SFP+ Slots	2	4	4	4	2	4	4
General Features	Stackability	Virtual Stacking of up to 32 units; Physical Stacking of up to 6 units						
	Stacking Speed (per Port)	20 Gbps (Full Duplex)						
	Switching Capacity	76 Gbps	128 Gbps	128 Gbps	176 Gbps	92 Gbps	128 Gbps	176 Gbps
	Forwarding Mode	Store-and-Forward						
	Packet Buffer Memory	1.5MB	1.5MB	1.5MB	3MB	1.5MB	1.5MB	3MB
	MAC Address Table	16,000						
	Flow Control	802.3x, HOL Blocking Prevention						
	MDI/MDIX	Configurable						
Layer 2 Features	Loop Protection	802.1D, 802.1w, 802.1s						
	803.2ad Link Aggregation	32 Groups, 8 Ports per Group						
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both						
	Loopback Detection	✓						
	Cable Diagnostics	✓						
Layer 3 Features	IP Interfaces	8						
	Routing Protocols	Static						
	Policy-Based Routing	—						
	Route Balancing	—						
	IPv6 Tunneling	—						
	VRRP	—						
Virtual LAN (VLAN)	VLANs	4096 Static						
	GVRP	✓						
	Protocol VLAN (802.1v)	—						
	Double VLAN (Q-in-Q)	—						
Multicasting	Groups	512						
	Protocols	IGMP v1/v2						
Quality of Service (QoS)	Standard	802.1p, DSCP						
	Number of Queues	4						
	Mode	Strict Priority Queue (SPQ), Weighted Round Robin (WRR), Deficit Round Robin (DRR)						
	CoS Handling	802.1p, DSCP						
	Bandwidth Control	Port-Based						
Security	STP Security	—						
	Per-Port MAC Limitation	✓						
	Static MAC	128						
	Storm Control	Broadcast / Multicast / Unicast						
	IP-MAC-Port Binding	512 Entries						
	DHCP Spoofing Prevention	✓						
	ARP Spoofing Prevention	✓						
	Traffic Segmentation	✓						
	D-Link SafeGuard Engine	✓						
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based						
	Web-Based Access Control (WAC)	✓						
	MAC-Based Access Control (MAC)	✓						
	Network Access Protection (NAP)	✓						
	Guest VLAN	✓						
	Switch Access	User Account						
Access Control Lists (ACL)	Rules	768						
	ACL Handling	MAC, IP, 802.1p, DSCP/IPV6 Address						
	Time-Based ACL	—						
Power over Ethernet	Standard	—	—	—	—	802.3af (PoE), 802.3at (PoE+)	802.3af, 802.3at	802.3af, 802.3at
	PoE Ports	—	—	—	—	24	1-24	1-48
	PoE Power Budget	—	—	—	—	193 W	370 W	370 W (740W w/ DPS-700)
	Time-Based PoE	—	—	—	—	✓	✓	✓
Management	Switch Access	Web GUI, Telnet, Console						
	sFlow	—						
	SNMP	v1 / v2c / v3						
	DHCP	DHCP Client						
	RMON	✓						
	TFTP Client	✓						
	Syslog	✓						
Physical and Environment	Power Supply	Internal						
	Maximum Power Consumption	20.3 W	22.3W	22.3W	48 W	238.7 W (PoE on) 29 W (PoE off)	436.3 W (PoE on) 38.4 W (PoE off)	486.9 W (PoE on) 58.8 W (PoE off)
	Power-Saving Technology	IEEE 802.3az EEE, Green Ethernet						
	Operating Temperature	-5ºC to 50ºC						
	Operating Humidity	0% to 95% RH Non-Condensing						
	Dimensions (W x D x H)	280 x 180 x 44 mm	440 x 210 x 44mm	440 x 210 x 44mm	440 x 210 x 44 mm	440 x 250 x 44 mm	440mm x308.50mm x44mm	440mm x 308mm x44mm
Modules/ Transceivers	10 Gigabit SFP+ Transceivers	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-434XT, DEM-435XT, DEM-435XT-DD, DEM-436XT-BXU, DEM-436XT-BXD						
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DGS-712						
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R						

Physical Stacking Among Switches

A stackable switch is a network switch that is able to operate as a standalone switch, while they can also be set up to operate together with one or more switches of the same models, which is called Physical Stacking. Physical Stacking allows the switches to work as a single switch, making it easier to manage and configure via a single management interface. Switches supporting physical stacking can operate together or can operate independently. When the switches are stacked together, should one unit in a stack be removed or fail, data will continue to flow through other units that remain functional. With physical stacking, it is easy to increase the total port count and grow the network by adding additional switches as and when needed, while maintaining minimum management complexity.

Models that support physical stacking:

DXS-3610 Series	DGS-3130 Series
DXS-3400 Series	DGS-1520 Series
DGS-3630 Series	DGS-1510 Series

* All models above support physical stacking on the 10G SFP+ Slots via 10G Direct Attach Cable (DEM-CB100S/DEM-CB300S/DEM-CB700S), except DGS-3120 Series where special stacking cables are needed. Please refer to page 59 for details.
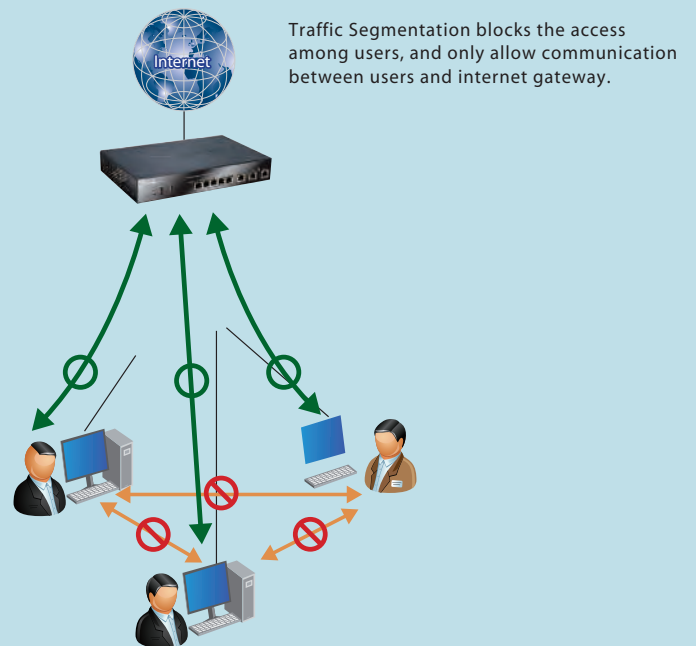

Management via a single switch, ie. the Master of a stack of switches

Primary Master
The Backup Master is the backup to the Primary Master, and will take over the functions of the Primary Master fails or is removed from the stack.

Backup Master

Member Switch

The Backup Master monitors the status of neighboring switches in the stack, will perform commands assigned to it by the Primary Master and will monitor the running status of the Primary Master.

10G Up Link

Duplex Ring
10G

▌ Typical Network with Complex Setup

LAN   Core Switch

VRRP/OSPF   VRRP/OSPF

Aggregation Switch   Aggregation Switch

STP/RSTP   STP/RSTP

End Point Switch   End Point Switch

– Complex Network Topology
– Long recovery time during failure

▌ Network Designed with Physical Stacking and Link Aggregation for simplified management, redundancy and load sharing.

LAN
Core Switch

Stack Switch #1   Stack Switch #2

802.3ad LAG

Stack Switch #1   Stack Switch #2   Stack Switch #1   Stack Switch #2

802.3ad Link Aggregation

Aggregation Switch   Aggregation Switch

802.3ad LAG   802.3ad LAG

802.3ad Link Aggregation

End Point Switch   End Point Switch

– Simplified Network Topology
– Easily Expandable by adding more switches in the stack
– Reduce System Recovery Time during failure

D-Link Ethernet Switching Solution
for Hotels and Service Apartments

It is important to maintain privacy to hotel or service apartment's guests when they access to internet via the provided network. To ensure the communication between each hotel guest room as well as the units in the apartments are blocked, the network administrator may configure port security function to restrict the access of individual port to uplink only. There are 3 ways to achieve it, namely Asymmetric VLAN, Traffic Segmentation and Private VLAN.

Asymmetric VLAN

Asymmetric VLAN allows communication among the same VLAN and uplink only, ie users at VLAN2 can communicate to each other and gateway at VLAN1. However VLAN2 & VLAN3 are not accessible to each other. Users at VLAN3 can communicate to each other and gateway at VLAN1.

Internet

Internet Gateway : VLAN1

Switch1

VLAN 2   VLAN 3

Tag

Switch2

VLAN 2   VLAN 3

Traffic Segmentation

Traffic Segmentation blocks the access among users, and only allow communication between users and internet gateway.

Internet

Private VLAN

Users at Isolate VLAN can only communicate to uplink port, they are not accessible to each other.

Users at community VLAN can communicate to each other and also uplink port

Internet

Traffic segmentation

Isolate VLAN   Isolate VLAN   Community VLAN   Community VLAN

Communication among Isolate VLAN is forbidden

Communicate among Isolate VLAN and Community VLAN is forbidden

Communication among Community VLAN is allowed
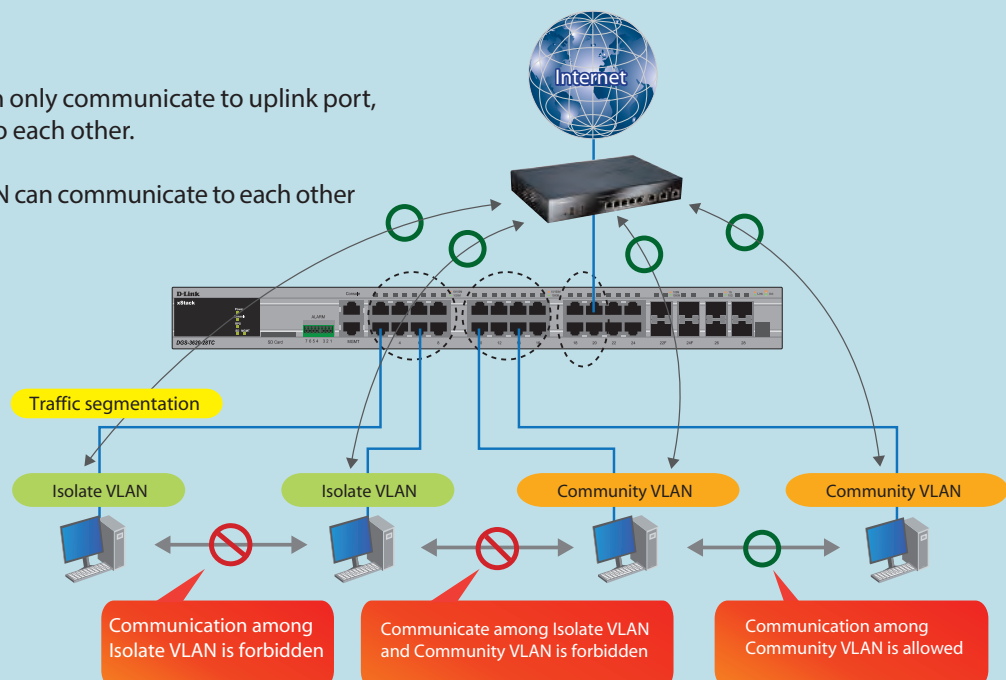
Layer 2+ 10G
Smart Managed Switches

DXS-1210 Series

D-Link's DXS-1210 Series 10 Gigabit Ethernet Smart Switches are a cost effective 10 GbE switch series capable of servicing a range of network needs in any business. Supporting 10GBASE-T/SFP+ combo ports, they provide connection flexibility across a network allowing easier network integration. With high performance and low latency the DXS-1210-12TC/12SC can fulfill the needs for virtualization, cloud services and server-to-server applications making it perfect for SMB customers.

Key Series Features

- Internet Group Management Protocol (IGMP) snooping
- Loopback Detection (LBD)
- Cable diagnostics
- 802.1Q   virtual LAN (VLAN)
- Management VLAN
- Asymmetric VLAN
- Auto Voice VLAN
- Quality of Service (QoS)
- Access Control List (ACL)
- 802.1X access control
- Port security
- Broadcast/multicast/unicast storm control
- D-Link Safeguard Engine
- DHCP server screening
- ARP spoofing prevention
- Web-based GUI
- Simple Network Management Protocol (SNMP)

Series include the below models

DXS-1210-10TS
- 10GBASE-T ports x 8
- SFP+ports x 2
- Smart fans

DXS-1210-12TC
- 10GBASE-T ports x 8
- 10G SFP+ x 2
- 10GBASE-T/SFP+ combo port x 2
- Smart fans

DXS-1210-12SC
- 10-port 10G SFP+ x 10
- 10GBASE-T/SFP+ combo port x 2
- Smart fans

DXS-1210-16TC
- 10GBASE-T ports x 12
- 10G SFP+ x 2
- 10GBASE-T/SFP+ combo port x 2
- Smart fans

DXS-1210-28T
- 10GBASE-T ports x 24
- 25G SFP28 x 4
- Smart fans

DXS-1210-28S
- 10G SFP+ x 24
- 10GBASE-T ports x 4
- Smart fans

Optional Accessories

Optional 10 Gbps SFP+ Direct Attach Interconnect Cables
DEM-CB100S   10 Gigabit SFP+ 1 m Direct Attach Stacking Cable
DEM-CB300S   10 Gigabit SFP+ 3 m Direct Attach Stacking Cable
DEM-CB700S   10-GbE SFP+ 7m Direct Attach Stacking Cable

Optional Management Software
DV-700   D-View 7 Network Management System

MODEL		DXS-1210-10TS	DXS-1210-12TC	DXS-1210-12SC	DXS-1210-16TC	DXS-1210-28T	DXS-1210-28S
Interfaces	10GBASE-T	8	8	—	12	24	4
	SFP+ Slots	2	2	10	2	4 (25G SFP28)	24
	Combo 10GBASE-T/ SFP+ Slots	—	2	2	2	-	-
General Features	Stackability	—					
	Stacking Speed (per Port)	—					
	Switching Capacity	200 Gbps	240 Gbps		320 Gbps	680 Gbps	560 Gbps
	Forwarding Mode	Store-and-Forward					
	Packet Buffer Memory	2 MB				4 MB	4 MB
	MAC Address Table	16,000				32,000	32,000
	Flow Control	802.3x, HOL Blocking Prevention					
	MDI/MDIX	Configurable					
Layer 2 Features	Loop Protection	802.1D, 802.1w, 802.1s					
	803.2ad Link Aggregation	Max. 8 groups per device/8 ports per group					
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both					
	Loopback Detection	✓					
	Cable Diagnostics	✓					
Layer 3 Features	IP Interfaces	8 IPv4/v6				4 IPv4/v6	
	Routing Protocols	Static: Max. 64 IPv4 entries, Max. 64 IPv6 entries				Static Max. 128 IPv4, 64 IPv6 entries	
Virtual LAN (VLAN)	VLANs	4000					
	GVRP	✓					
	Protocol VLAN (802.1v)	—					
	Double VLAN (Q-in-Q)	—					
	Auto Voice VLAN	✓					
	Auto Surveillance VLAN	✓					
Multicasting	Groups	1000				512	
	Protocols	IGMP v1/v2/v3 Snooping, MLD v1/v2 Snooping					
Quality of Service (QoS)	Standard	802.1p, DSCP					
	Number of Queues	8					
	Mode	Strict Priority Queue (SPQ), Weighted Round Robin (WRR), Deficit Round Robin (DRR)					
	CoS Handling	802.1p, DSCP, TOS, IPv6 Traffic Class, Port, VLAN ID, MAC, IPv4, IPv6, Protocol, IPv6 Flow Label					
	Bandwidth Control	Port-Based					
Security	STP Security	Root Restriction					
	Per-Port MAC Limitation	✓					
	Static MAC	1K				256	
	Storm Control	Broadcast / Multicast / Unicast					
	IP-MAC-Port Binding	✓					
	DHCP Spoofing Prevention	✓					
	ARP Spoofing Prevention	✓					
	Traffic Segmentation	✓					
	D-Link SafeGuard Engine	✓					
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Identity Driven				Port-Base, Host Based	
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Identity Driven				—	
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Identity Driven				—	
	Network Access Protection (NAP)	—				—	
	Guest VLAN	—				✓	
	Switch Access	RADIUS / TACACS+					
Access Control Lists (ACL)	Rules	256				1024	
	ACL Handling	802.1p, DSCP, IPv6 Traffic Class, Port, VLAN ID, MAC, IPv4, IPv6, Protocol, IPv6 Flow Label					
	Time-Based ACL	—					
Management	Switch Access	Web GUI, Telnet, D-Link Network Assistant Utility					
	sFlow	—					
	SNMP	v1 / v2c / v3					
	DHCP	Client					
	RMON	✓					
	TFTP Client	✓					
	Syslog	✓					
Physical and Environment	Power Supply	Internal					
	Maximum Power Consumption	68.67 W	90.81 W	43.81 W	90.81 W	87.3W	85.7W
	Power-Saving Technology	Green Ethernet					
	Operating Temperature	-5°C to 50°C					
	Operating Humidity	0% to 95% RH Non-Condensing					
	Dimensions (W x D x H)	440 x 210 x 44 mm					
Modules/ Transceivers	10 Gigabit SFP+ Transceivers	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-434XT, DEM-436XT-BXU, DEM-436XT-BXD					
	SFP Transceivers	DEM-302S-LX, DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DGS-712					
	WDM SFP Transceivers	DEM-302S-BXD, DEM-302S-BXU, DEM-330T, DEM-330R, DEM-331T, DEM-331R					

D-Link Metro Ethernet Switches

D-Link's Metro Ethernet Switches are purpose-built for deployment in Metropolitan Area Networks and designed based on field proven experience learnt from multiple Ethernet deployments in Telecoms/Carriers. With support for a wide variety of technologies, which includes Ethernet OAM (Operations, Administration and Maintenance), Double VLAN (Q-in-Q), QoS and Triple-Play services demanded by Carrier Ethernet, they are optimized for Ethernet-to-the-Home (ETTH) and Ethernet-to-the-Business (ETTB) services. They also come ready with Service Provider- friendly hardware, robust software and security features, which serve as an ideal access level switches in a Metropolitan network. D-Link Metro Ethernet Switches can be positioned as high-end residential switch or access layer switch in a Metro Ethernet. Targeted at IPTV applications, it provides complete multicast functions and reliable hardware design.

802.3ah OAM

The 802.3ah OAM, a data link layer protocol, provides network administrator the ability to monitor the health of the network and quickly determine the location of failing links or fault conditions on point-to-point and emulated point-to-point Ethernet links.

Multicast Capability

Ideal for the growing demands of IPTV usage, the D-Link Metro Ethernet Switches provides omprehensive multicast functions which enable various channel program designs for IPTV providers. This includes IGMP Snooping, Limited IP Multicast, ISM VLAN as well as MLD Snooping for an IPv6 environment.

Security

Through static MAC, network administrator can filter packets sent by non-registered devices. Port Security can limit the number of MAC addresses learnt per port and to prevent MAC address flooding attacks.

802.1x Authentication

The support of port-based and host-based 802.1x access control with local server or RADIUS server allows network administrator to put unauthorized users into Guest VLAN and restrict them with limited access rights.

Fully IPv6 Compatible

IPv6 Compatibility ensures continued reliable usage by Internet Service Providers (ISPs) when migrating to next-generation IP networks.

Easy Management

D-Link Metro Ethernet Switches feature a variety of management tools and supports several communication standards. Configuration can be done through Telnet, SNMP and HTTP. The Graphical User Interface (GUI) provides network administrator a straightforward and convenient way to manage their networks. The Link Layer Discovery Protocol (LLDP) allows the switch to advertise its identity and capabilities on the local network and to detect neighboring devices, so that the devices can provide topology information to management software applications.

Key Features

- ISM VLAN (Layer 2 Multicast)
- Guest VLAN
- IGMP Snooping
- MLD Snooping
- IGMP Authentication
- Access Control List (ACL)
- Port / Host-based 802.1xAccess Control
- RADIUS / Local Authentication Database
- D-Link SafeGuard Engine
- Port-based Q-in-Q
- VLAN Trunking
- Port Security
- SSH / SSL
- IP-MAC-Port Binding (IMPB)
- IEEE 802.3ah OAM
- Cable Diagnostics
- SNMP v1/v2c/v3
- RMON v1
- Link Layer Discovery Protocol (LLDP)
- DHCP Auto Configuration
- Neighbor Discovering
- Command Line Interface
- 6kV Surge Protection on all Ethernet Ports
- Dying Gasp

* Features supported are model dependent. Please refer to technical specification of each model.

Layer 2+ Gigabit Metro Ethernet Switches

DGS-1210/ME Series (B1)

The DGS-1210/ME Series Metro Ethernet Switches are a range of switches ideally suited for Metro Ethernet applications. They feature a variety of port configurations, including 10/100/1000BASE-T RJ-45 ports, 1G SFP slots and some models also support 10G SFP+ slots for increased network bandwidth. Surge protection, advanced Layer 2 functions, extensive suite of security and management tools make the DGS-1210/ME Series Metro Ethernet Switches ideal for Metro Ethernet applications. There are some models feature with Power over Ethernet (PoE), allowing compatible devices to be installed and powered in remote locations without immediate access to power outlets.

Key Series Features

- Port-based Q-in-Q
- VLAN Trunking
- IP-MAC-Port Binding (IMPB)
- Access Control List (ACL)
- IEEE 802.1X Access Control
- Guest VLAN
- Quality of Service (QoS)
- Port security
- ITU-T G.8032 ERPS sub-50ms protection & recovery
- D-Link Safeguard Engine
- Layer 2 Multicast
- 802.3ah Ethernet Link OAM
- Dying Gasp for quick troubleshooting during power failures or system shut down
- 6kV Surge Protection on all Gigabit Ethernet Ports
- Command Line Interface (CLI)
- RJ-45 Console Port

Series include the below models

DGS-1210-10/ME (B1)
- 10/100/1000BASE-T ports x 8
- SFP ports x 2

DGS-1210-10P/ME (B1)
- 10/100/1000BASE-T PoE ports x 8
- SFP ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 78 W PoE power budget

DGS-1210-12TS/ME (B1)
- 10/100/1000BASE-T ports x 2
- SFP ports x 10

DGS-1210-20/ME (B1)
- 10/100/1000BASE-T ports x 16
- SFP ports x 4

DGS-1210-28/ME (B2)
- 10/100/1000BASE-T ports x 24
- SFP ports x 4

DGS-1210-28P/ME (B2)
- 10/100/1000BASE-T PoE ports x 24
- SFP ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 193 W PoE power budget

DGS-1210-28MP/ME (B2)
- 10/100/1000BASE-T PoE ports x 24
- SFP ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget

DGS-1210-52/ME (B2)
- 10/100/1000BASE-T ports x 48
- SFP ports x 4

DGS-1210-52P/ME (B2)
- 10/100/1000BASE-T PoE ports x 24
- 10/100/1000BASE-T ports x 24
- SFP ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 193 W PoE power budget
- Port 1 - 8: Up to 30W
- Port 9 - 24: Up to 15.4W

DGS-1210-52MP/ME (B2)
- 10/100/1000BASE-T PoE ports x 48
- SFP ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget
- Port 1 - 8: Up to 30W
- Port 9 - 48: Up to 15.4W

DGS-1210-52MPP/ME (B1)
- 10/100/1000BASE-T PoE ports x 48
- SFP ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 740 W PoE power budget

Optional Accessories

Optional 10 Gbps SFP+ Direct Attach Cables (For DGS-1210-28X/28XS ME B1)

DEM-CB100S	10 Gigabit SFP+ 1 m Direct Attach Cable
DEM-CB300S	10 Gigabit SFP+ 3 m Direct Attach Cable
DEM-CB700S	10 Gigabit SFP+ 7 m Direct Attach Cable

Optional DC PrimaryPower Supply (For Non-PoE Models)

SF24-2120200-1C	Input voltage: 72 VDC to 36 VDC, Output voltage: 12V/2A (For DGS-1210-10/ME, 20/ME, 28/ME B1)
SE40-1120333-3C	Input voltage: 72 VDC to 36 VDC, Output voltage: 12V/3.33A (For DGS-1210-52/ME B1)

Optional Redundant Power Supplies (For Non-PoE Models)

DPS-200A	60 W Redundant Power Supply
DPS-500A	140 W AC Redundant Power Supply
DPS-500DC	140 W DC Redundant Power Supply
DPS-CB150-2PS v.B1	The RPS cable for DGS-1210/ME & DPS-200A/500A/500DC
SU54-21124-000S	Optional 54W AC to DC Power Supply Unit (PSU) with external lead-acid battery

		DGS-1210-10/ME	DGS-1210-12TS/ME	DGS-1210-20/ME	DGS-1210-28/ME	DGS-1210-52/ME
MODEL				NON POE		
Interfaces	Gigabit Ethernet	8	2	16	24	48
	SFP Slots	2	10	4	4	4
	10 Gigabit SFP+ Slots					
General Features	Switching Capacity	20 Gbps	24 Gbps	40 Gbps	56 Gbps	104 Gbps
	Max Packet Forwarding Rate	14.88 Mpps	17.86 Mpps	29.8 Mpps	41.7 Mpps	77.4 Mpps
	Packet Buffer Memory		1.5 MB			3 MB
	MAC Address Table	16,000				
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention				
	Jumbo Frame	9216 Bytes				
Layer 2 Features	Loop Protection	802.1D, 802.1w, 802.1S, ERPS				
	802.3ad Link Aggregation	8 Groups, 8 Ports per Group				
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, Flow-Based (ACL) Mirroring for Ingress Traffic				
	Loopback Detection		•			
	Cable Diagnostics		•			
Layer 3 Features	ARP	256 Static ARP				
	IP Interfaces	4				
	Default Routing		•			
	Static Routing	Max 64 IPv4 Entries, Max 32 IPv6 Entries				
Virtual LAN (VLAN)	VLANs	4094 Static				
	GVRP	256 Dynamic				
	Protocol VLAN (802.1v)		•			
	Double VLAN (Q-in-Q)	Port-Based				
	MAC-Based VLAN		•			
	ISM VLAN (Multicast VLAN)		•			
	Private VLAN		•			
	VLAN Trunking		•			
Layer 2 Multicasting	Groups	256				
	Protocols	IGMP Snooping v1/ v2 / v3 awareness, MLD Snooping v1 / v2 awareness				
Quality of Service (QoS)	Standard	802.1p				
	Number of Queues	8				
	Mode	Strict / WRR				
	CoS Handling	Switch Port, 802.1p Priority Queue, VLAN ID, MAC Address, IP Address, DSCP, ToS, Protocol Type, IPv6 Traffic Class, TCP/UDP Port				
	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 64 kbps), Flow-Based (Ingress, min. granularity 64 kbps), Egress Queue Bandwidth Control (min. granularity 64 kbps)				
Security	STP Security	BPDU Filtering, Root Restriction				
	Port Security		•			
	DoS Attack Prevention		•			
	Storm Control	Broadcast / Multicast / Unicast				
	IP-MAC-Port Binding		•			
	DHCP Server Screening		•			
	ARP Spoofing Prevention					
	Traffic Segmentation		•			
	D-Link SafeGuard Engine		•			
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based				
	MAC-Based Access Control (MAC)	Host-Based				
	Network Access Protection (NAP)	802.1x NAP, DHCP NAP				
	Guest VLAN		•			
	Switch Access	RADIUS / TACACS+, 4-Level User Account				
Access Control Lists (ACL)	Rules	256 Ingress Access Rules				
	ACL Handling	Switch Port, 802.1p Priority, VLAN ID, MAC, IP Address, Ether Type, ToS, ICMP, IPv6 Traffic Class, DSCP, Protocol Type, TCP/UDP Port				
	Time-Based ACL		•			
Power over Ethernet	Standard					
	PoE Ports					
	PoE Power Budget					
	Time-Based PoE					
Management	Switch Access	Web GUI, CLI, Telnet, Console				
	SNMP	v1 / v2c / v3				
	DHCP	Client, Relay				
	RMON	v1 / v2				
	TFTP Client		•			
	Syslog		•			
Physical and Environment	Power Supply	Internal with RPS Option on Non-PoE Models				
	Maximum Power Consumption	13.59 W	13.85 W	13.97 W	19.14 W	38.35 W
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet				
	Mean Time Between Failures (MTBF)	412,956 Hours	405,083 Hours	349,836 Hours	497,918 Hours	381,999 Hours
	Operating Temperature	-5°C to 50°C				
	Operating Humidity	10% to 90% RH Non-Condensing				
	Dimensions (W x D x H)	280 x 126 x 44 mm	280 x 180 x 44 mm	280 x 180 x 44 mm	440 x140 x 44 mm	440 x 210 x 44 mm
Modules/ Transceivers	10 Gigabit SFP+ Transceivers (For 28X, 28XS/ME B1)	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-434XT, DEM-436XT-BXU, DEM-436XT-BXD				
	SFP Transceivers	DEM-210, DEM-211, DEM-220T, DEM-220R, DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712				

		DGS-1210-10P/ME	DGS-1210-28P/ME	DGS-1210-28MP/ME	DGS-1210-52P/ME	DGS-1210-52MP/ME	DGS-1210-52MPP/ME
				POE			
MODEL							
Interfaces	Gigabit Ethernet	8 (PoE)	24 (PoE)	24 (PoE)	24 (PoE) + 24	48 (PoE)	48 (PoE)
	SFP Slots	2	4	4	4	4	4
	10 Gigabit SFP+ Slots						
General Features	Switching Capacity	20 Gbps	56 Gbps	56 Gbps	104 Gbps	104 Gbps	104 Gbps
	Max Packet Forwarding Rate	14.88 Mpps	41.7 Mpps	41.7 Mpps	77.4Mpps	77.4 Mpps	77.4 Mpps
	Packet Buffer Memory	1.5 MB					
	MAC Address Table	16,000					
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention					
	Jumbo Frame	9216 Bytes					
Layer 2 Features	Loop Protection	802.1D, 802.1w, 802.1S, ERPS					
	802.3ad Link Aggregation	8 Groups, 8 Ports per Group					
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, Flow-Based (ACL) Mirroring for Ingress Traffic					
	Loopback Detection					•	
	Cable Diagnostics					•	
Layer 3 Features	ARP	256 Static ARP					
	IP Interfaces	4					
	Default Routing					•	
	Static Routing	Max 64 IPv4 Entries, Max 32 IPv6 Entries					
Virtual LAN (VLAN)	VLANs	4094 Static					
	GVRP	256 Dynamic					
	Protocol VLAN (802.1v)					•	
	Double VLAN (Q-in-Q)	Port-Based					
	MAC-Based VLAN					•	
	ISM VLAN (Multicast VLAN)					•	
	Private VLAN					•	
	VLAN Trunking					•	
Layer 2 Multicasting	Groups	256					
	Protocols	IGMP Snooping v1/ v2 / v3 awareness, MLD Snooping v1 / v2 awareness					
Quality of Service (QoS)	Standard	802.1p					
	Number of Queues	8					
	Mode	Strict / WRR					
	CoS Handling	Switch Port, 802.1p Priority Queue, VLAN ID, MAC Address, IP Address, DSCP, ToS, Protocol Type, IPv6 Traffic Class, TCP/UDP Port					
	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 64 kbps), Flow-Based (Ingress, min. granularity 64 kbps), Egress Queue Bandwidth Control (min. granularity 64 kbps)					
Security	STP Security	BPDU Filtering, Root Restriction					
	Port Security					•	
	DoS Attack Prevention					•	
	Storm Control	Broadcast / Multicast / Unicast					
	IP-MAC-Port Binding					•	
	DHCP Server Screening					•	
	ARP Spoofing Prevention						
	Traffic Segmentation					•	
	D-Link SafeGuard Engine					•	
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based					
	MAC-Based Access Control (MAC)	Host-Based					
	Network Access Protection (NAP)	802.1x NAP, DHCP NAP					
	Guest VLAN					•	
	Switch Access	RADIUS / TACACS+, 4-Level User Account					
Access Control Lists (ACL)	Rules	256 Ingress Access Rules					
	ACL Handling	Switch Port, 802.1p Priority, VLAN ID, MAC, IP Address, Ether Type, ToS, ICMP, IPv6 Traffic Class, DSCP, Protocol Type, TCP/UDP Port					
	Time-Based ACL					•	
Power over Ethernet	Standard	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
	PoE Ports	8	24	24	802.3af (PoE): 16 802.3at (PoE+): 8	802.3af (PoE): 40 802.3at (PoE+): 8	48
	PoE Power Budget	78 W	193 W	370 W	193 W	370 W	740 W
	Time-Based PoE	•	•	•	•	•	•
Management	Switch Access	Web GUI, CLI, Telnet, Console					
	SNMP	v1 / v2c / v3					
	DHCP	Client, Relay					
	RMON	v1 / v2					
	TFTP Client					•	
	Syslog					•	
Physical and Environment	Power Supply	Internal with RPS Option on Non-PoE Models					
	Maximum Power Consumption	101.7 W	251.5 W	445 W	273.2 W	479.5 W	957.9 W
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet					
	Mean Time Between Failures (MTBF)	310,336 Hours	331,699 Hours	267,960 Hours	289,151 Hours	272,910 Hours	265,457 Hours
	Operating Temperature	-5℃ to 50℃					
	Operating Humidity	10% to 90% RH Non-Condensing					
	Dimensions (W x D x H)	280 x 180 x 44 mm	440 x 210 x 44 mm	440 x 250 x 44 mm	440 x 430 x 44 mm	440 x 430 x 44 mm	440 x 431 x 44 mm
Modules/ Transceivers	10 Gigabit SFP+ Transceivers (For 28X, 28XS/ME B1)	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-434XT, DEM-436XT-BXU, DEM-436XT-BXD					
	SFP Transceivers	DEM-210, DEM-211, DEM-220T, DEM-220R, DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712					

Advanced Layer 2+ Gigabit Smart Managed Swtches

DGS-1250 Series (with 10G Uplinks)

The D-Link DGS-1250 Series Smart Managed Switches are the latest generation of switches to provide increased Power over Ethernet (PoE) output, high port density, multiple management interfaces, and advanced Layer 2 features. With all of these features combined, the DGS-1250 Series provides a cost-efficient and flexible solution for expanding any business network.DGS-1250 Series includes a wide range of port and media types. All models in the DGS-1250 Series feature four 10G SFP+ ports, allowing you to choose the most suitable media type for your requirements. All DGS-1250 Series PoE switches include support for IEEE 802.3af/at and higher power budgets, allowing more PoE devices to be powered by the switch and for devices to be installed in remote locations without immediate access to power outlets. Furthermore, the DGS-1250-28XMP and DGS-1250-52XMP can supply PoE power up to 370W providing even more power for connected devices.

Key Series Features

- Access Control Lists (ACLs)
- D-Link Safeguard Engine helps the CPU resist broadcast/multicast/unicast flooding
- Port Security supports up to 64 MAC addresses per port
- ARP Spoofing Prevention
- IMPB Support
- D-Link Network Assistant (DNA) utility or multilingual Web UI
- Built-in SNMP MIB for remote NMS (D-View 7.0)
- Full command line support via console port1
- Static routing
- Surveillance Mode
- Auto Voice VLAN
- Dual software images
- Dual configuration files
- Link status detection
- Port and LED shut-off
- System hibernation
- Time-based PoE (PoE models only)

Surveillance Mode

The DGS-1250 Series supports Auto Voice VLAN and Surveillance Mode, which allows voice and video traffic to be automatically identified and handled differently than regular network traffic. Auto Voice VLAN detects Voice over IP (VoIP) traffic and automatically segments it from the rest of the network, adding a layer of isolation and allowing Quality of Service (QoS) to be applied. Surveillance Mode detects compatible ONVIF cameras and places them in a surveillance VLAN, allowing a single switch to be used for voice, video, and data, removing the need for dedicated hardware and reducing maintenance costs. Surveillance Mode also includes its own Web UI, making surveillance features easily accessible and simplifying management of your surveillance network.

Series include the below models

DGS-1250-28X
- 24 x 10/100/1000BASE-T
- 4 x 10G SFP+ ports

DGS-1250-28XMP
- 24 x 10/100/1000BASE-T PoE
- 4 x 10G SFP+ ports
- 802.3af (PoE) and 802.3at (PoE+)support
- 370 W PoE power budgets

DGS-1250-52X
- 48 x 10/100/1000BASE-T
- 4 x 10G SFP+ ports

DGS-1250-52XMP
- 48 x 10/100/1000BASE-T PoE
- 4 x 10G SFP+ ports
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget

Optional Accessories

DGS-712	1000BASE-T copper	DEM-220T/R	Fast Ethernet WDM transceiver, single-mode, 20 km
DEM-302S-LX	1000BASE-LX, single-mode, 2 km	DEM-410T	10GBASE-T SFP+ transceiver, 100 m
DEM-302S-BXD/BXU	Gigabit WDM transceiver, single-mode, 2 km	DEM-431XT	10GBASE-SR SFP+ transceiver (without DDM), 33 m: OM1 MMF, 82 m: OM2 MMF, 300 m: OM3 MMF
DEM-310GT	1000BASE-LX, single-mode, 10 km	DEM-431XT-DD	10GBASE-SR SFP+ transceiver (with DDM), 33 m: OM1 MMF, 82 m: OM2 MMF, 300 m: OM3 MMF
DEM-311GT	1000BASE-SX, multi-mode, 550 m	DEM-432XT	10GBASE-LR SFP+ transceiver (without DDM), 10 km
DEM-312GT2	1000BASE-SX, multi-mode, 2 km	DEM-432XT-DD	10GBASE-LR SFP+ transceiver (with DDM), 10 km
DEM-314GT	1000BASE-LHX, single-mode, 50 km	DEM-433XT	10GBASE-ER SFP+ transceiver (without DDM), 40 km
DEM-315GT	100BASE-ZX, single-mode, 80 km	DEM-433XT-DD	10GBASE-ER SFP+ transceiver (with DDM), 40 km
DEM-330T/R	Gigabit WDM transceiver, single-mode 10 km	DEM-434XT	10GBASE-ZR SFP+ transceiver (without DDM), 80 km
DEM-331T/R	Gigabit WDM transceiver, single-mode 40 km	DEM-436XT-BXD	10GBASE-LR BiDi SFP+ transceiver (without DDM), wavelength Tx: 1330 nm, Rx: 1270 nm, 20 km
DEM-210	100BASE-FX, single-mode, 15 km	DEM-436XT-BXU	10GBASE-LR BiDi SFP+ transceiver (without DDM), wavelength Tx: 1270 nm, Rx: 1330 nm, 20 km
DEM-211	100BASE-FX, multi-mode, 2 km		

		NON POE		POE	
MODEL		**DGS-1250-28X**	**DGS-1250-52X**	**DGS-1250-28XMP**	**DGS-1250-52XMP**
Interfaces	1000Base-T Interface	24	48		
	1000Base-T Interface	•	•		
	1000Base-T PoE Interface			24	48
	1000Base-T PoE Interface			•	•
	1000Base-T PoE Interface			•	•
	10G SFP+ Interface	4	4	4	4
	10G SFP+ Interface			•	
	10G SFP+ Interface			•	
	Auto MDI/MDIX			•	
	Console Port	RJ-45	RJ-45	RJ-45	RJ-45
General Features	Switching Capacity	128Gbps	176Gbps	128Gbps	176Gbps
	Max. Packet Forwarding Rate	95.24Mpps	130.95Mpps	95.24Mpps	130.95Mpps
	Store & Forwarding Forwading			•	
	MAC Address Table Size	16K	32K	16K	32K
	Dual Images			•	
Power Over Ethernet (PoE)	Standard			802.3a	
	Maximum PoE Budget			370W	370W
	PD Alive	Yes (R1.1)	Yes (R1.1)	Yes (R1.1)	Yes (R1.1)
Layer 2 Features	802.3x Flow Control			•	
	Head-of-line (HOL) Blocking Prevention			•	
	802.1D Spanning Tree (STP)			•	
	802.1w Rapid Spanning Tree (RSTP)			•	
	802.1s Multiple Spanning Tree (MSTP)			•	
	Root Restriction			•	
	Root Guard			•	
	802.3ad Link Aggregation			•	
	Link Aggregation Group Per Device	8	8	8	8
	Max Port Per Link Aggregation Group	8	8	8	8
	Port Mirroring			•	
	Jumbo Frame	12,000 Bytes	12,000 Bytes	12,000 Bytes	12,000 Bytes
	Loopback Detection (LBD)			•	
	IGMP Snooping			•	
	Max IGMP Snooping Groups	256	256	256	256
	MLD Snooping			•	
	MLD Snooping Groups			•	
Layer 3 Features	IP Interface			•	
	Max Number of IP Interface	4	4	4	4
	ARP			•	
	IPv6 Neighbor Discovery (ND)			•	
	Default Route			•	
	Static Route			•	
Virtual LAN (VLAN)	802.1Q VLAN			•	
	VLAN Groups	4094	4094	4094	4094
	Port-based VLAN			•	
	Voice VLAN			•	
	Auto Surveillance VLAN			•	
	Asymmetric VLAN			•	
Quality of Service (QoS)	Class of Service (CoS)			•	
	Strict Priority Queue (SPQ)			•	
	Weighted Round Robin (WRR)			•	
	Port-based Bandwidth Control			•	
Security	MAC Access List			•	
	SSH			•	
	SSL	Yes (only support TLS 1.0)	Yes (only support TLS 1.0)	Yes (only support TLS 1.0)	Yes (only support TLS 1.0)
	Port Security			•	
	Broadcast/Multicast/Unicast Storm Control			•	
	Traffic Segmentation			•	
	IP-MAC-Port Binding (IMPB)			•	
	IP Source Guard			•	
	DHCP Snooping			•	
	IPv6 Snooping			•	
	Dynamic ARP Inspection (DAI)			•	
	DHCPv6 Guard			•	
	IPv6 Route Advertisement (RA) Guard			•	
	IPv6 ND Inspection			•	
	Duplicate Address Detection (DAD)			•	
	D-Link Safeguard Engine			•	
	DHCP Server Screening			•	
	ARP Spoofing Prevention			•	
	BPDU Attack Protection			•	
	DoS Attack Prevention			•	
	802.1X			•	
	Port based 802.1X Authentication			•	
	Identity Driven 802.1X Policy Assignment			•	
	Guest VLAN			•	
	Authentication for Management Access			•	
	RADIUS			•	
Management	Simple Network Time Protocol (SNTP)			•	
	Web-based GUI	Yes (only support IE8, IE9, IE10)	Yes (only support IE8, IE9, IE10)	Yes (only support IE8, IE9, IE10)	Yes (only support IE8, IE9, IE10)
	Command Line Interface (CLI)	Yes (Limited CLI via telnet) R2 (Full CLI)	Yes (Limited CLI via telnet) R2 (Full CLI)	Yes (Limited CLI via telnet) R2 (Full CLI)	Yes (Limited CLI via telnet) R2 (Full CLI)
	Telnet Server			•	
	SNMP			•	
	TFTP Client			•	
	System Log			•	
	RMON			•	
	D-Link Discover Protocol (DDP)	Yes (v0.27)	Yes (v0.27)	Yes (v0.27)	Yes (v0.27)
	Dual Configurations			•	
	DNS Client			•	
	D-Link Network Assistant			•	
	Smart Wizard			•	
Power Consumption	Maximum Power Consumption	30.6W(100V/60Hz), 29.6W(240V/50HZ) (Power measurement from AC side)	51W(100V/60Hz), 51.2W(240V/50Hz) (Power measurement from AC side)	PoE ON: 455.1W(100V/60Hz), 431.5W(240V/50Hz) PoE OFF: 38.6W(100V/60Hz), 39.1W(240V/60Hz) (Power measurement from AC side)	PoE ON: 467.3W(100V/60Hz), 443.6W(240V/50Hz) PoE OFF: 56.4W(100V/60Hz), 57.2W(240V/50Hz) (Power measurement from AC side)
	Standby Power Consumption	8.7W(100V), 9.3W(240V)	23W(100V). 23.5 W(240V)	18.5 W(100V), 19W(240V)	27.8W(100V), 28.4W(240V)
	Power Input	100-240 VAC	100-240 VAC	100-240 VAC	100-240 VAC
Power Saving	Energy Efficiency Ethernet (EEE)			•	
	Power Saving By Link Status			•	
	Power Saving By Cable Length			•	
	Power Saving By LED Shut-Off			•	
	Power Saving By Port Shut-Off			•	
	Power Saving By System Hibernation			•	
	Time-based PoE			•	
Physical and Environment	Dimension	440mm x 140 mm x 44mm	440mm x 210 mm x 44mm	440mm x 250 mm x 44mm	440mm x 430 mm x 44mm
	Weight	1.75KG	3.01KG	3.46KG	3.85KG
	Operation Temperature	-5 - 50℃	-5 - 50℃	-5 - 50℃	-5 - 50℃
	Storage Temperature	-20-70℃	-20-70℃	-20-70℃	-20-70℃
	Operation Humidity	0% - 95% RH	0% - 95% RH	0% - 95% RH	0% - 95% RH
	Storage Humidity	0% ~ 95% RH	0% ~ 95% RH	0% ~ 95% RH	0% ~ 95% RH
	Operating Altitude	1500 meters	1500 meters	1500 meters	1500 meters
	Comply with RoHS 6	Yes	Yes	Yes	Yes

Layer 2+ Gigabit Smart Managed Switches

DGS-1210 Series nuclias connect

The DGS-1210 Layer 2+ Gigabit Smart Managed Switches are the latest generation to feature D-Link's Green 3.0 Technology and IEEE 802.3az Energy Efficient Ethernet standard, which offers a high level of energy saving and efficiency. By offering multiple management options, the Smart Managed Switches allow quick deployment, infrastructure expansion and seamless function upgrades, and with full support for IPv6 management and configurations, this latest range will ensure your network remains protected after from IPv4 to IPv6. Built for small- and medium-sized businesses, the DGS-1210 Series Layer 2+ Gigabit Smart Managed Switches provide functionality, security, and manageability for a fraction of the standard cost of ownership.

Six switches in the DGS-1210 range offer power-budget PoE for businesses looking to power VoIP phones, wireless access points or network cameras. The various model design with different power budget allows plenty of flexibility in power allocation for a variety of powered devices but still offers affordable installation costs.

Series include the below models

DGS-1210-10 (F1)
- 10/100/1000BASE-T ports x 8
- SFP ports x 2

DGS-1210-10MP (F1)
- 10/100/1000BASE-T PoE ports x 8
- SFP ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 130 W PoE power budget

DGS-1210-10P (F1)
- 10/100/1000BASE-T PoE ports x 8
- SFP ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 65 W PoE power budget

DGS-1210-20 (F1)
- 10/100/1000BASE-T ports x 16
- 10/100/1000BASE-T/SFP Combo ports x 4

DGS-1210-26 (F2)
- 10/100/1000BASE-T ports x 24
- SFP ports x 2

DGS-1210-28 (F2)
- 10/100/1000BASE-T ports x 24
- 10/100/1000BASE-T/SFP Combo ports x 4

DGS-1210-28P (F2)
- 10/100/1000BASE-T PoE ports x 24
- 10/100/1000BASE-T/SFP Combo ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 193 W PoE power budget

DGS-1210-28MP (F2)
- 10/100/1000BASE-T PoE ports x 24
- 10/100/1000BASE-T/SFP Combo ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget

DGS-1210-52 (F2)
- 10/100/1000BASE-T ports x 48
- 10/100/1000BASE-T/SFP Combo ports x 4

DGS-1210-52MP (F2)
- 10/100/1000BASE-T PoE ports x 48
- 10/100/1000BASE-T/SFP Combo ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget

DGS-1210-52MPP (E1)*
- 10/100/1000BASE-T PoE ports x 48
- SFP ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 740 W PoE power budget

*Does not support Nuclias connect

Key Series Features
- Layer 3 Static Routing
- Internet Group Management Protocol (IGMP) snooping
- Loopback Detection (LBD)
- Cable diagnostics
- 802.1Q Virtual LAN (VLAN)
- Auto Surveillance VLAN (ASV)
- Asymmetric VLAN
- Auto Voice VLAN
- Quality of Service (QoS)
- Access Control List (ACL)
- 802.1X Access Control
- Port security
- Broadcast/multicast/unicast storm control
- D-Link Safeguard Engine
- DHCP server screening
- ARP spoofing prevention
- Web-based GUI
- Simple Network Management Protocol (SNMP)

Optional Accessories

Optional Management Software
DV-700 — D-View 7 Network Management System
DV-800 — D-View 8 Network Management System

MODEL		DGS-1210-10 (F1)	DGS-1210-20 (F1)	DGS-1210-26 (F2)	DGS-1210-28 (F2)	DGS-1210-52 (F2)
				NON POE		
Interfaces	Gigabit Ethernet	8	16	24	24	48
	10/100/1000BASE-T/SFP Combo Slots		4		4	4
	SFP Slots	2		2		
General Features	Switching Capacity	20 Gbps	40 Gbps	52 Gbps	56 Gbps	104 Gbps
	Max Packet Forwarding Rate	14.88 Mpps	29.8 Mpps	38.7 Mpps	41.7 Mpps	77.4 Mpps
	Packet Buffer Memory	4.1 Mbits	4.1 Mbits	4.1 Mbits	4.1 Mbits	12 Mbits
	MAC Address Table					
	Flow Control					
	Jumbo Frame					
Layer 2 Features	Loop Protection					
	802.3ad Link Aggregation	8 Groups 8 Ports per Group	8 Groups 8 Ports per Group	4 Groups 8 Ports per Group	8 Groups 8 Ports per Group	4 Groups 8 Ports per Group
	Port Mirroring					
	Loopback Detection					
	Cable Diagnostics					
Layer 3 Features	ARP	·	·	·	·	·
	IP Interfaces	4	4	4	4	4
	Default Routing	·	·	·	·	·
	Static Routing					Max 124 IPv4
Virtual LAN (VLAN)	VLANs					
	Auto Voice VLAN					
	Auto Surveillance VLAN					
Layer 2 Multicasting	Groups					
	Protocols					IGMP Snooping v1/ v2 / v3
Quality of Service (QoS)	Standard					
	Number of Queues					
	Mode					
	CoS Handling					802.1p Priority Queue, MAC Address, Ether Type, IP Address,
	Bandwidth Control					Port-Based (Ingress /
Security	STP Security					
	Port Security					
	DoS Attack Prevention					
	Storm Control					
	IP-MAC-Port Binding					
	DHCP Server Screening					
	ARP Spoofing Prevention					
	Traffic Segmentation					
	D-Link SafeGuard Engine					
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication					
	Switch Access					
Access Control Lists (ACL)	Rules					
	ACL Handling					802.1p Priority, VLAN ID,
Power over Ethernet	Standard					
	PoE Ports					
	PoE Power Budget					
	Time-Based PoE					
Management	Switch Access					
	SNMP					
	DHCP					
	RMON					
	TFTP Client					
	Syslog					
Physical and Environment	Power Supply	Internal	Internal	Internal	Internal	Internal
	Maximum Power Consumption	6.33 W	13.02 W	15.11 W	16.94 W	34.2 W
	Power-Saving Technology					
	Mean Time Between Failures (MTBF)	1,380,058 Hours	1,087,100 Hours	1,082,534 Hours	992,594 Hours	400,667 Hours
	Operating Temperature					
	Operating Humidity					
	Dimensions (W x D x H)	280 x 126 x 44 mm	280 x 180 x 44 mm	440 x140 x 44 mm	440 x140 x 44 mm	440 x 210 x 44 mm
Modules/ Transceivers	SFP Transceivers					DEM-210, DEM-211, DEM-220T, DEM-220R, DEM-310GT,

*Revision F2 comply with UL 62368 / EN 62368-1.

POE					
DGS-1210-10MP (F1)	**DGS-1210-10P (F1)**	**DGS-1210-28P (F2)**	**DGS-1210-28MP (F2)**	**DGS-1210-52MP (F2)**	**DGS-1210-52MPP (E1)**
8 (PoE)	8 (PoE)	24 (PoE)	24 (PoE)	48 (PoE)	48 (PoE)
		4	4	4	
2	2				4
20 Gbps	20 Gbps	56 Gbps	56 Gbps	104 Gbps	104 Gbps
14.88 Mpps	14.88 Mpps	41.7 Mpps	41.7 Mpps	77.4 Mpps	77.4 Mpps
4.1 Mbits	4.1 Mbits	4.1 Mbits	4.1 Mbits	12 Mbits	3 MB
8000					16,000
IEEE 802.3x Flow Control, HOL Blocking Prevention					
10,000 Bytes					9216 Bytes
802.1D, 802.1w, 802.1s					802.1D, 802.1w, 802.1s, ERPS
8 Groups 8 Ports per Group	8 Groups 8 Ports per Group	4 Groups 8 Ports per Group	4 Groups 8 Ports per Group	4 Groups 8 Ports per Group	26 Groups 8 Ports per Group
One-to-One, Many-to-One, Mirroring for Tx/Rx/Both					
•					
•					
•	•	•	•	•	
4	4	4	4	4	1
•	•	•	•	•	
Entries, Max 50 IPv6 Entries					Max 64 IPv4 Entries, Max 32 IPv6 Entries
256 Static					
•					
•					
256					
awareness, MLD Snooping v1 / v2 awareness					IGMP Snooping v1 / v2 / v3 awareness, MLD Snooping v1 / v2
802.1p, DSCP					
8					
Strict / WRR					
Protocol Type, DSCP, ToS, IP Preference, IPv6 Traffic Class, TCP/UDP Port					802.1p Priority Queue, DSCP, ToS, IPv6 Traffic Class, TCP/UDP Port
Egress, min. granularity 16 kbps)					Port-Based (Ingress/Egress, min. granularity 64 kbps)
Root Restriction					
•					
•					
Broadcast / Multicast / Unicast					
Smart IP-MAC-Port Binding					
•					
•					
•					
•					
Port-Based					
RADIUS					
Ingress ACL: 50 Profiles, 768 Rules					
MAC, IP Address, Ether Type, IPv6 Traffic Class, DSCP, Protocol Type, TCP/UDP Port					
802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
8	8	24	24	48	48
130 W	65 W	193 W	370 W	370 W	740 W
•	•	•	•	•	•
Web GUI, Compact CLI, Telnet					
v1 / v2c / v3					
Client					
v1					
•					
•					
Internal	External	Internal	Internal	Internal	Internal
148.7 W	80.6 W	247.4 W	424.8 W	454.1 W	967.5 W
Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet					
1,274,005 Hours	729,258 Hours	469,262 Hours	277,967 Hours	236,406 Hours	350,728 Hours
-5°C to 50°C					
0% to 95% RH Non-Condensing					
330 x 180 x 44 mm	280 x 180 x 44 mm	440 x 250 x 44 mm	440 x 250 x 44 mm	440 x 430 x 44 mm	440 x 430 x 44 mm

DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712

Layer 2 Fast Ethernet Smart Managed Switches

DES-1210 Series

The DES-1210 Series provides 8, 24 or 48 Fast Ethernet ports, with optional Gigabit and combo Gigabit/SFP ports, so has all the features needed in a small- or medium-sized business, without the complexity or cost. The built-in web interface and PC-based SmartConsole Utility make these switches easy to deploy, configure and troubleshoot and the complete set of features allows for seamless integration in any business environment. The PoE option is available on the 8- and 24-port members of the family and includes power-saving technologies such as time-based PoE, which allows the power to be shut off at a predetermined time, saving power on VoIP phones, wireless access points or any other PoE equipment. Furthermore, the DES-1210-28P incorporates a Smart Fan feature, automatically turning on the system fans only when necessary. This not only saves energy and cost but also extends the lifespan of the switch. The DES-1210-28P is also compliant with the PoE+ standard, enabling it to feed up to 30 Watts to connected PoE devices.

Key Series Features

- Internet Group Management Protocol (IGMP) snooping
- Multicast filtering
- 802.1Q tagged Virtual LAN (VLAN)
- Management VLAN
- Asymmetric VLAN
- Auto Voice VLAN
- Quality of Service (QoS)
- Access Control List (ACL)
- 802.1X Access Control
- Broadcast/multicast/unicast storm control
- D-Link SafeGuard Engine
- DHCP server screening
- ARP spoofing prevention
- Web-based GUI
- Simple Network Management Protocol (SNMP)

Series include the below models

DES-1210-08P
- 10/100BASE-TX PoE ports x 8
- 802.3af PoE support
- 72 W PoE power budget
- Fanless

DES-1210-28
- 10/100BASE-TX ports x 24
- 10/100/1000BASE-T ports x 2
- Combo 1000BASE-T/SFP ports x 2
- Fanless
- 19in, 1U rack-mountable

DES-1210-28P
- 10/100BASE-TX PoE ports x 24
- 10/100/1000BASE-T ports x 2
- Combo 1000BASE-T/SFP ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 193 W PoE power budget
- Smart fans x 3
- 19in, 1U rack-mountable

What speed does Ethernet run at ?

Ethernet interfaces are referred to as 10BASE-T (Ethernet), 100BASE-TX (Fast Ethernet), 1000BASE-T (Gigabit Ethernet) and 10GBASE-T (10 Gigabit Ethernet.) Each standard represents a 10-fold increase in data transfer speed, from 10BASE-T (10 million bits per second) up to 10GBASE-T (10 thousand million bits per second). Don't forget that eight bits equals one byte...

Optional Accessories

Optional Management Software
DV-700   D-View 7 Network Management System
DV-800   D-View 8 Network Management System

		NON POE	POE	
MODEL		**DES-1210-28**	**DES-1210-08P**	**DES-1210-28P**
Interfaces	Fast Ethernet	24	8 (PoE)	24 (PoE)
	Gigabit Ethernet	2	—	2
	Combo Gigabit/SFP Slots	2	—	2
General Features	Stackability	—	—	—
	Stacking Speed (per Port)		—	
	Switching Capacity	12.8 Gbps	1.6 Gbps	12.8 Gbps
	Forwarding Mode		Store-and-Forward	
	Packet Buffer Memory	512 KB	384 KB	512 KB
	MAC Address Table	8K Entries	8K Entries	8K Entries
	Flow Control		802.3x, HOL Blocking Prevention	
	MDI/MDIX		Configurable	
L2 Features	Loop Protection		802.1Q, 802.1w	
	803.2ad Link Aggregation	14 Groups 8 Ports per Group	4 Groups 8 Ports per Group	14 Groups 8 Ports per Group
	Port Mirroring		One-to-One, Many-to-One, RX/TX/Both	
	Loopback Detection		✓	
	Cable Diagnostics		—	
Virtual LAN (VLAN)	VLANs		256 Static	
	GVRP		—	
	Protocol VLAN (802.1v)		—	
	Double VLAN (Q-in-Q)		—	
	Auto Voice VLAN		✓	
	Auto Surveillance VLAN		✓	
Multicasting	Groups		256	
	Protocols		IGMP v1, v2	
Quality of Service (QoS)	Standard		802.1p, DSCP	
	Number of Queues		4	
	Mode		Strict / WRR	
	CoS Handling		802.1p, DSCP	
	Bandwidth Control		✓	
Security	STP Security		—	
	Per-Port MAC Limitation		✓	
	Static MAC		64	
	Storm Control		Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding		—	
	DHCP Server Prevention		✓	
	ARP Spoofing Prevention		✓	
	Traffic Segmentation		✓	
	D-Link SafeGuard Engine		✓	
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication		Port-Based	
	Web-based Access Contol (WAC)		—	
	MAC-based Access Contol (MAC)		—	
	Network Access Protection (NAP)		—	
	Guest VLAN		—	
	Switch Access		—	
Access Control Lists (ACL)	Rules		240	
	Mac-Based ACL		VLAN ID, 802.1p, MAC, IP, DSCP, Port	
	Time-Based ACL		—	
Power over Ethernet	Standard		802.3af (PoE)	802.3af (PoE), 802.3at (PoE+)
	PoE Ports	—	8	802.3af (PoE): 24 802.3at (PoE+): 4
	PoE Power Budget		72 W	193 W
Management	Switch Access		Web GUI, Telnet	
	sFlow		—	
	SNMP		v1 / v2c / v3	
	DHCP		Client	
	RMON		✓	
	TFTP Client		✓	
	Syslog		✓	
Physical and Environment	Power Supply	Internal	External	Internal
	Maximum Power Consumption	9.46 W	84.9 W (PoE on) 3.5 W (PoE off)	254 W (PoE on) 26.4 W (PoE off)
	Power Saving Technology	—		Smart Fans
	Number of Fans	0	0	3
	Operating Temperature		0°C to 40°C	
	Operating Humidity		5% to 95% RH Non-Condensing	
	Dimensions (W x D x H)	330 x 180 x 44 mm	190 x 120 x 38 mm	440 x 210 x 44 mm
	Mean Time Between Failures (MTBF)	330,182 Hours	656,745 Hours	244,140 Hours
Modules/ Transceivers	SFP Transceivers		DEM-210, DEM-211, DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT	

Layer 2 2.5 Gigabit Smart Managed Switches

DMS-1100 Series

The DMS-1100 Series is the latest in D-Link Layer 2 Smart Managed Switches Family. Thi series supports 2.5 Gigabit Ethernet and 10G SFP+ Slots for uplink. It blends plug-and-play simplicity with exceptional value and reliability for small and medium-sized business (SMB) networking. The whole series are housed in a new style rack-mount metal case with easy-to-view front panel diagnostic LEDs, and provide advanced features including network security, traffic segmentation, QoS and versatile management.

Key Series Features

- Port Security
- 2.5G Base-T PoE*
- D-Link Safeguard Engine
- Auto Surveillance VLAN
- Voice VLAN
- Port Mirroring
- Bandwidth Control
- Traffic Segmentation
- 802.1p Priority Queue Mapping
- Web-based GUI or D-Link Network Assistant utility

Energy Efficient Ethernet

dlink green
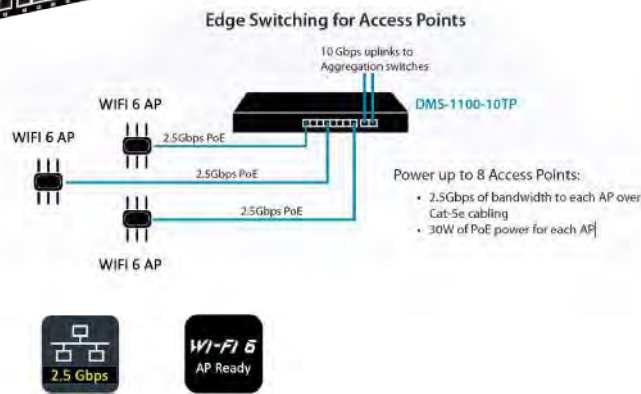
Series include the below models

DMS-1100-10TS

- 2.5GBASE-T ports x 8
- 10 Gigabit SFP+ ports x 2

DMS-1100-10TP*

- 2.5GBASE-T PoE ports x 8
- 10 Gigabit SFP+ ports x 2

Optional Accessories

Optional 10 Gbps SFP+ Direct Attach Cables

DEM-CB100S	10 Gigabit SFP+ 1 m Direct Attach Cable
DEM-CB300S	10 Gigabit SFP+ 3 m Direct Attach Cable
DEM-CB700S	10 Gigabit SFP+ 7 m Direct Attach Cable

What does 1U Rack- Mountable mean?

Many D-Link switches and other supporting hardware such as RPSs (Redundant Power Supplies) are designed to fit in standard 19in-wide communications enclosure frames. 1U Rack-Mountable means this device is one standard unit high (44mm) and that it can be mounted into a standard comms rack. Some D-Link switches that are narrower than 19in are supplied with brackets so they can still be rack-mounted if desired.

		NON POE	POE
MODEL		DMS-1100-10TS	DMS-1100-10TP
Interfaces	2.5GBASE-T	8	8 (PoE)
	10 Gigabit SFP+ Slots	2	2
General Features	Stackability		
	Stacking Speed		
	Switching Capacity	80 Gbps	80 Gbps
	Max Packet Forwarding Rate	59.52 Mpps	59.52 Mpps
	Packet Buffer Memory	12 Mbits	
	MAC Address Table	16000	
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention	
	Jumbo Frame	9216 Bytes	
L2 Features	Loop Protection	802.1D, 802.1w, ERPS	
	802.3ad Link Aggregation	•	
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both	
	Loopback Detection	•	
	Cable Diagnostics	•	
Virtual LAN (VLAN)	VLANs	128 Static	
	GVRP		
	Protocol VLAN (802.1v)		
	Double VLAN (Q-in-Q)		
	Auto Voice VLAN	•	
	Auto Surveillance VLAN	•	
Layer 2 Multicasting	Groups	TBA	
	Protocols	IGMP Snooping v1 / v2 / v3, MLD Snooping v1 / v2	
Quality of Service (QoS)	Standard	802.1p	
	Number of Queues	8	
	Mode	Strict / WRR / DRR	
	CoS Handling	Switch Port	
	Bandwidth Control	Port-Based (Ingress/Egress)	
Security	STP Security		
	Port Security		
	DoS Attack Prevention	•	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding		
	DHCP Server Screening		
	ARP Spoofing Prevention		
	D-Link SafeGuard Engine	•	
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication		
Power Over Ethernet	Standard	802.3af (PoE) 802.3at (PoE+)	
	PoE Ports	8	
	PoE Power Budget	240 W	
	Time-based PoE	•	
Access Control Lists (ACL)	ACL Handling		
Management	Switch Access	Web GUI	
	sFlow		
	SNMP	v1 / v2c	
	DHCP	Client	
	RMON		
	TFTP Client	•	
	Syslog	•	
	Power Supply	Internal	
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet	
	Operating Temperature	-5°C to 50°C	
	Operating Humidity	0% to 95% RH Non-Condensing	
	Dimensions (W x D x H)	440 x 209 x 44 mm	440 x 250 x 44 mm
Modules / Transceivers	10 Gigabit SFP+ Transceivers	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD, DEM-433XT, DEM-433XT-DD, DEM-434XT, DEM-436XT-BXD, DEM-436XT-BXU	
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712	

Layer 2 Gigabit Metro Ethernet Switches

DGS-1100/ME Series

The DGS-1100/ME Gigabit Metro Ethernet Switches are ideal solution for Metro Ethernet applications which require upgrade from Fast Ethernet to Gigabit entry level switches. This series also offer resilience against electrical spikes with in-built surge protection, giving customer a reliable solution that they can count on.

Compliant with IEEE802.3az Energy Efficient Ethernet, the DGS-1100/ME switches consume less energy by cutting down on power consumption when port utilization is low. By deploying EEE devices, users can cut operating costs and even cut down on necessary cooling equipment, helping small and medium-sized businesses stay within their budgets. The DGS-1100/ME Series also features D-Link Green Technology that helps automatically save energy. The switches monitor the link status of every port and will drastically reduce power consumption when a port link is down.

The DGS-1100/ME Series also feature Loopback Detection and Cable Diagnostics to help network administrators find and solve network problems quickly and easily. Loopback Detection is used to detect loops created by a specific port and automatically shut down the affected port. The Cable Diagnostics feature is designed for network administrators to quickly examine the quality of the copper cables, recognize the cable type, and detect cable errors.

Key Series Features

- Various selection of port counts, with or without PoE and fiber support
- Port-based Q-in-Q*
- Silent, fanless design (Non-PoE models)
- IGMP Snooping
- IEEE 802.1X Access Control*
- Guest VLAN*
- Quality of Service (QoS)
- Port security*
- D-Link Safeguard Engine
- Layer 2 Multicast
- 802.3ah Ethernet Link OAM*
- 6kV Surge Protection on all Gigabit Ethernet Ports
- Command Line Interface (CLI)

* Supported on DGS-1100-06/10ME

Series include the below models

DGS-1100-06/ME
- 10/100/1000BASE-T ports x 5
- SFP port x 1

DGS-1100-10/ME
- 10/100/1000BASE-T ports x 8
- 10/100/1000BASE-T/SFP Combo ports x 2

DGS-1100-16/ME
- 10/100/1000BASE-T ports x 16

DGS-1100-24/ME
- 10/100/1000BASE-T ports x 24

DGS-1100-24P/ME
- 10/100/1000BASE-T PoE ports x 12
- 10/100/1000BASE-T ports x 12
- 802.3af (PoE) and 802.3at (PoE+) support
- 100 W PoE power budget

		NON POE				POE
MODEL		**DGS-1100-06/ME**	**DGS-1100-10/ME**	**DGS-1100-16/ME**	**DGS-1100-24/ME**	**DGS-1100-24P/ME**
Interfaces	Gigabit Ethernet	5	8	16	24	12 (PoE) + 12
	10/100/1000BASE-T/SFP Combo Slots		2			
	SFP Slots	1				
General Features	Switching Capacity	12 Gbps	20 Gbps	32 Gbps	48 Gbps	48 Gbps
	Max Packet Forwarding Rate	8.9 Mpps	14.88 Mpps	23.81 Mpps	35.71 Mpps	35.71 Mpps
	Packet Buffer Memory	128KB	4.1 Mbits	512 KB	512 KB	512 KB
	MAC Address Table	4,000	8,000	8,000	8,000	8,000
	Flow Control			IEEE 802.3x Flow Control, HOL Blocking Prevention		
	Jumbo Frame	9216 Bytes	10 Kbytes	9216 Bytes	9216 Bytes	9216 Bytes
Layer 2 Features	Loop Protection	802.1D, 802.1w		802.1D, 802.1w	802.1D, 802.1w	802.1D, 802.1w
	802.3ad Link Aggregation	8 Groups, 8 Ports per Group		8 Groups, 8 Ports per Group	12 Groups, 8 Ports per Group	12 Groups, 8 Ports per Group
	Port Mirroring			One-to-One, Many-to-One, Mirroring for Tx/Rx/Both		
	Loopback Detection			•		
	Cable Diagnostics			•		
Layer 3 Features	ARP		128 Static ARP			
	IP Interfaces		1			
	Default Routing		•			
	Static Routing					
Virtual LAN (VLAN)	VLANs	32	32	128	128	128
	GVRP					
	Auto Surveillance VLAN			•	•	•
	Double VLAN (Q-in-Q)	Port-Based	Port-Based			
	Voice VLAN			•	•	•
	ISM VLAN (Multicast VLAN)			•		
Layer 2 Multicasting	Groups	32	256	64	64	64
	Protocols	IGMP Snooping v1/ v2 / v3 awareness, MLD Snooping v1 / v2		IGMP Snooping v1/ v2 / v3 awareness, MLD Snooping v1 / v2 awareness		
Quality of Service (QoS)	Standard	802.1p, DSCP	802.1p, DSCP	802.1p	802.1p	802.1p
	Number of Queues	4	8	4	4	4
	Mode			Strict / WRR		
	CoS Handling	802.1p, DSCP, IPv6 Traffic Class	802.1p, DSCP	Switch Port	Switch Port	Switch Port
	Bandwidth Control	Port-Based (Ingress/Egree, min. granularity 64 kbps)	Port-Based (Ingress/Egree, min. granularity 16 kbps)	Port-Based (Ingress, min. granularity 8 kbps, Egress, min. granularity 64 kbps)		
Security	STP Security					
	Port Security	•	•			
	DoS Attack Prevention			•	•	•
	Storm Control			Broadcast / Multicast / Unicast		
	IP-MAC-Port Binding					
	DHCP Server Screening					
	ARP Spoofing Prevention					
	Traffic Segmentation			•		
	D-Link SafeGuard Engine			•		
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN/QoS Assignment	Port-Based, Host-Based, Dynamic VLAN/QoS Assignment			
	Guest VLAN	•	•			
Power over Ethernet	Standard					802.3af (PoE) 802.3at (PoE+)
	PoE Ports					12
	PoE Power Budget					100 W
	Time-Based PoE					•
Management	Switch Access			Web GUI, CLI, Telnet		
	SNMP	v1 / v2c / v3	v1 / v2c / v3	v1 / v2c	v1 / v2c	v1 / v2c
	DHCP	Client, Relay	Client, Relay	Client	Client	Client
	RMON	v1	v1			
	TFTP Client			•		
	Syslog			•		
Physical and Environment	Power Supply	External	External	Internal	Internal	Internal
	Maximum Power Consumption	7.08W	7.9 W	9.31 W	13.94 W	128.32 W
	Power-Saving Technology			Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (All supported except DGS-1100-06/ME)		
	Mean Time Between Failures (MTBF)	459,420 Hours	706,061 Hours	2,827,541 Hours	2,406,109 Hours	563,292 Hours
	Operating Temperature	0℃ to 40℃	-5℃ to 50℃	-5℃ to 50℃	-5℃ to 50℃	-5℃ to 50℃
	Operating Humidity	10% to 90% RH Non-Condensing		0% to 95% RH Non-Condensing		
	Dimensions (W x D x H)	280 x 126 x 44 mm	190 x 120 x 38 mm	280 x 180 x 44 mm	280 x 180 x 44 mm	280 x 230 x 44 mm
Modules / Transceivers	SFP Transceivers		DEM-210, DEM-211, DEM-220T, DEM-220R (Supported by DGS-1100-06, 10/ME) DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712 (Supported by DGS-1100-06, 10, 18/ME)			

Layer 2 Gigabit Smart Managed Switches

DGS-1100 V2 Series

nuclias connect

The DGS-1100 Series is a range of switches designed to meet the requirements of small, medium, and enterprise businesses. Support for multiple PoE standards (802.3af/at/bt) make the DGS-1100 Series ideal for IP surveillance deployments. Advanced management features, a range of diagnostic and troubleshooting tools, and energy efficient technologies provide a flexible solution to meet your networking requirements.

*Model dependent

Green Features That Help the Environment and Your Budget

D-Link Green technology enables the DGS-1100 Smart Managed Switches to save power without sacrificing performance. Most of the models in the series utilize a fanless design, ensuring a longer product life, as well offering silent and energy-efficient operation. All are IEEE 802.3az-compliant and feature Link Status detection and Time-Based PoE

Types of Power-over-Ethernet Standards

IEEE 802.3af (PoE)

Power Sourced **15.4W**
Power Requested **13W**

IP Camera

IP Phone

IEEE 802.3at (PoE+)

Power Sourced **30W**
Power Requested **25.5W**

Wireless AP

IP Camera

IEEE 802.3bt (PoE++)

Power Sourced **90W**
Power Requested **71.3W**

PTZ Camera

PTZ Controller

Digital Signage

Smart Lighting

POS System

Key Series Features

- Available in multiple configurations, with or without PoE and fiber support
- Fanless design for silent operation1
- Link status detection
- IEEE 802.3az Energy-Efficient Ethernet compliant
- Time-based PoE*
- PoE++ 802.3bt (Up to 90W)*
- IGMP Snooping
- Bandwidth Control
- IEEE 802.1Q VLAN traffic segregation
- Port-based VLAN
- IEEE 802.1p Quality of Service
- Surveillance VLAN*
- Voice VLAN

Management Features

- Client-based utility or web-based GUI
- Built-in SNMP MIB2
- D-Link Network Assist

Safeguard **Engine**

Energy Efficient Ethernet

dlink green

Series include the below models

DGS-1100-05V2
• 5x 10/100/1000BASE-T Port

DGS-1100-05PDV2
• 5x 10/100/1000BASE-T
• Port 1 & 2 PoE passthrough

DGS-1100-08V2
• 8x 10/100/1000BASE-T Port

DGS-1100-16V2
• 16x 10/100/1000BASE-T Port

DGS-1100-24V2
• 24x 10/100/1000BASE-T Port

DGS-1100-08PV2
• 8x 10/100/1000BASE-T PoE
• 64 W PoE power budget

DGS-1100-08PLV2
• 4x 10/100/1000BASE-T PoE + 4x 10/100/1000BASE-T Port
• 80 W PoE power budget

DGS-1100-18PV2
• 16x 10/100/1000BASE-T PoE
• 2x 100/1000 GE/SFP Combo Ports
• 130 W PoE power budget

DGS-1100-24PV2
• 12x 10/100/1000BASE-T PoE
• 12x 10/100/1000BASE-T Port
• 100 W PoE power budget

DGS-1100-10MPV2
• 8x 10/100/1000BASE-T PoE
• 2x SFP Ports
• 130 W PoE power budget

DGS-1100-26MPV2
• 24x 10/100/1000BASE-T PoE
• 2x GE/SFP Combo Ports
• 370W PoE power bud

DGS-1100-10MPPV2
• 8x 10/100/1000BASE-T PoE
• 2x SFP Ports
• 802.3bt (PoE++) support (up to 90W)
• 242 W PoE power budget

DGS-1100-26MPPV2
• 24x 10/100/1000BASE-T PoE
• 2x GE/SFP Combo Ports
• 802.3bt (PoE++) support (up to 90W)
• 525 W PoE power budget

Optional Accessories

Optional SFP Transceivers

DEM-210 100BASE-FX, single-mode, 15 km
DEM-211 100BASE-FX, multi-mode, 2 km
DEM-220T 100BASE-BX-D , single-mode, 20 km
DEM-220R 100BASE-BX-U , single-mode, 20 km
DGS-712 1000BASE-T copper, 100 m
DEM-310GT 1000BASE-LX, single-mode, 10 km
DEM-311GT 1000BASE-SX, multi-mode, 550 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-330T 1000BASE-BX-D, single-mode, 10 km
DEM-330R 1000BASE-BX-U, single-mode, 10 km
DEM-331T 1000BASE-BX-D, single-mode, 40 km
DEM-331R 1000BASE-BX-U, single-mode, 40 km

Free to Download Management Software

License-Free Switches

Backwards Compatibility

Intuitive Interface

Inexpensive Hardware Controller

Traffic Reports & Analytics

Remote & Batch Configuration

Multi-Tenant & Role Based Administration

Searchable Event and Change Logs

Surveillance Camera

nuclias connect

DGS-1210 PoE Series

Internet

Router

DGS-1210 PoE Series

Nuclias Connect Aps

User Devices
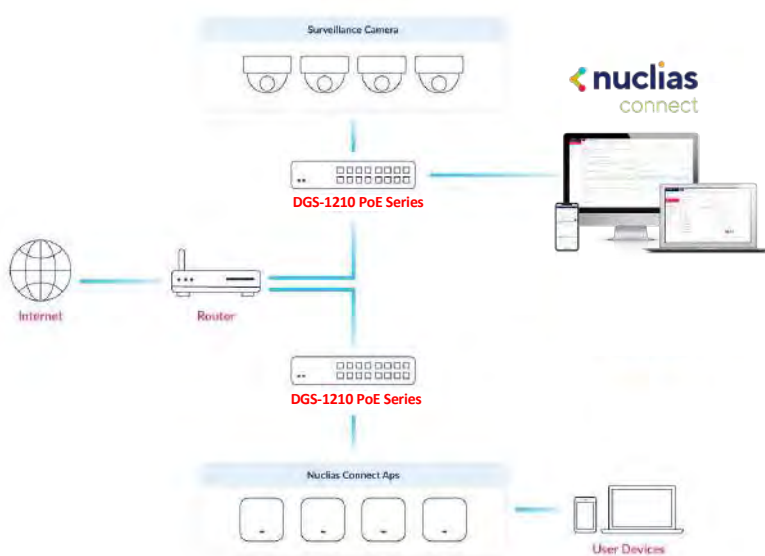
MODEL		DGS-1100-05V2	DGS-1100-08V2	DGS-1100-16V2	DGS-1100-24V2
			NON POE		
Interfaces	Gigabit Ethernet	5	8	16	24
	Auto MDI/MDIX	Yes			
General Features	Switching Capacity	10 Gbps	16 Gbps	32Gbps	48Gbps
	Max. Packet Forwarding Rate	7.4Mpps	11.9Mpps	23.81Mpps	35.71Mpps
	Store & Forwarding Forwading		✓		
	MAC Address Table Size	2K	4K	8K	8K
	802.3x Flow Control		✓		
	Head-of-line (HOL) Blocking Prevention		✓		
L2 Features	802.1D Spanning Tree (STP)		✓		
	802.1w Rapid Spanning Tree (RSTP)		✓		
	802.1AX Link Aggregation			✓	✓
	Port Mirroring		✓		
	Jumbo Frame	9K bytes	9K bytes	10K bytes	10K bytes
	Loopback Detection (LBD)		✓		
	Cable Diagnostics		✓		
	IGMP Snooping		✓		
Virtual LAN (VLAN)	802.1Q VLAN		1 ~ 4094		
	VLAN Groups	32	32	128	128
	Port-based VLAN		✓		
	Voice VLAN	Static Voice VLAN only	Static Voice VLAN only	✓	✓
	Auto Surveillance VLAN			✓	✓
	Asymmetric VLAN	✓			
	Number of Queue	4	4	8	8
Security	Class of Service (CoS)		✓		
	Rate Limiting		✓		
	Strict Priority Queue (SPQ)		✓		
	Weighted Round Robin (WRR)		✓		
	Port-based Bandwidth Control		✓		
	SSL			✓	✓
	Broadcast/Multicast/Unicast Storm Control		✓		
	Traffic Segmentation		✓		
	D-Link Safeguard Engine			✓	✓
	DoS Attack Prevention			✓	✓
Management	Web-based GUI		✓		
	SNMP		✓		
	TFTP Client			✓	✓
	System Log			✓	✓
	LLDP			✓	✓
	D-Link Discover Protocol (DDP)		✓		
	DHCP/BootP Client		✓		
	D-Link Network Assistant		✓		
	Smart Wizard			✓	✓
Physical and Environment	Dimension	100.5 × 82 × 28 mm	145 × 82 × 28 mm	280 x 180 x 44mm	280 x 180 x 44mm
	Weight	0.23 kg	0.34 kg	1.21 Kg	1.32 Kg
	Operation Temperature	0 ~ 40 ℃	0 ~ 40 ℃	-5-50℃	-5-50℃
	Storage Temperature	- 40 ~ 70 ℃	- 40 ~ 70 ℃	-40-70℃	-40-70℃
	Operation Humidity	0% ~ 90% RH	0% ~ 90% RH	0%-95% RH	0%-95% RH
	Storage Humidity	0% ~ 95% RH	0% ~ 95% RH	0% ~ 95% RH	0% ~ 95% RH
	Maximum Power Consumption	3.42 W	4.94 W	10.1Watts	15.9Watts
	Standby Power Consumption	1.39 W	1.93 W	3.4Watts	4.5Watts
	FAN	Fanless	Fanless	Fanless	Fanless
	Power Input	AC: 100 ~ 240 V (5V/1A power adapter)	AC: 100 ~ 240 V (5V/1A power adapter)	AC: 100-240V	AC: 100-240V
	Energy Efficiency Ethernet (EEE)	✓			
	Comply with RoHS 6	✓			

		POE			PoE++ (802.3bt)	
MODEL	**DGS-1100-08PV2**	**DGS-1100-10MPV2**	**DGS-1100-18PV2**	**DGS-1100-24PV2**	**DGS-1100-10MPPV2**	**DGS-1100-26MPPV2**
Interfaces						
Gigabit Ethernet	8 (PoE)	8 (PoE)	16 (PoE)	12 (PoE) + 12	8 (PoE)	24 (PoE)
Gigabit PoE++ Ethernet Port No.					PoE++ (Port 7 ~ 8)	PoE++(Port 20 ~ 24)
SFP Slot		2			2	
Combo 1000Base-T/SFP			2			2
Auto MDI/MDIX	✓	✓	✓	✓	✓	✓
General Features						
Switching Capacity	16 Gbps	20Gbps	36Gbps	48Gbps	20Gbps	52Gbps
Max. Packet Forwarding Rate	11.9Mpps	14.88Mpps	26.78Mpps	35.71Mpps	14.88Mpps	38.69Mpps
Store & Forwarding Forwading	✓	✓	✓	✓	✓	✓
Jumbo Frame	9K bytes	10K bytes	10K bytes	10K bytes	10K bytes	10K bytes
MAC Address Table Size	4K	8K	8K	8K	8K	8K
Power Over Ethernet						
Standard	802.3af (PoE)	802.3af (PoE)	802.3af (PoE)	802.3af (PoE)	802.3af (PoE)	802.3af (PoE)
	802.3at (PoE+)	802.3at (PoE+)	802.3at (PoE+)	802.3at (PoE+)	802.3at (PoE+)	802.3at (PoE+)
					802.3bt (PoE++)	802.3bt (PoE++)
PoE Ports	8	8	16	12 (PoE)	8 (PoE)	24 (PoE)
PoE Power Budget	64W	130W	130W	100 Watts	242W	525W
Time-based PoE		Yes				
L2 Features						
802.3x Flow Control				✓		
Head-of-line (HOL) Blocking Prevention				✓		
802.1D Spanning Tree (STP)				✓		
802.1w Rapid Spanning Tree (RSTP)				✓		
802.1AX Link Aggregation		✓				
802.3ad Link Aggregation		✓				
Link Aggregation Group Per Device	2 (static port trunk)	8	8	8	8	8
Port Mirroring				✓		
Loopback Detection (LBD)				✓		
IGMP Snooping				✓		
Virtual LAN (VLAN)						
802.1Q VLAN	1 ~ 4094	1 ~ 4094	1 ~ 4094	1 ~ 4094	1 ~ 4094	1 ~ 4094
VLAN Groups	32	128	128	128	128	128
Port-based VLAN				✓		
Auto Surveillance VLAN		✓		✓		
Quality of Service (QoS)						
Class of Service (CoS)				✓		
Rate Limiting				✓		
Strict Priority Queue (SPQ)				✓		
Weighted Round Robin (WRR)				✓		
Port-based Bandwidth Control				✓		
Security						
SSL		✓		✓		
Broadcast/Multicast/Unicast Storm Control				✓		
Traffic Segmentation				✓		
D-Link Safeguard Engine		✓		✓		
DoS Attack Prevention		✓		✓		
Management						
Web-based GUI				✓		
SNMP				✓		
SNMP Trap				✓		
TFTP Client		✓		✓		
System Log		✓		✓		
LLDP		✓		✓		
D-Link Discover Protocol (DDP)				✓		
DHCP/BootP Client				✓		
Cable Diagnostics				✓		
D-Link Network Assistant				✓		
Physical and Environment						
Dimension	171 × 97.8 × 28.6 mm	280x 180x 44mm	280x 230x 44mm	280x 230x 44mm	280x 230x 44mm	440x 330x 44mm
Weight	0.433 kg	1.50 Kg	2.10 Kg	2.00 Kg	2.00 Kg	4.4 Kg
Operation Temperature	0 ~ 40 ℃	-5-50℃	-5-50℃	-5-50℃	-5-50℃	-5-50℃
Storage Temperature	- 40 ~ 70 ℃	-40-70℃	-40-70℃	-40-70℃	-40-70℃	-40-70℃
Operation Humidity	0% ~ 90% RH	0%-95% RH	0%-95% RH	0%-95% RH	0%-95% RH	0%-95% RH
Storage Humidity	0% ~ 95% RH	0% ~ 95% RH	0% ~ 95% RH	0% ~ 95% RH	0% ~ 95% RH	0% ~ 95% RH
Maximum Power Consumption	4.6 W (PoE off) 77.9W (PoE on)	PoE on : 164.6Watts PoE off: 11.7Watts	PoE on : 166.7Watts PoE off: 18.3Watts	PoE on : 131.5Watts PoE off: 19.5Watts	PoE on : 291.8Watts PoE off: 12.8Watts	PoE on : 619.5Watts PoE off: 38.4Watts
Standby Power Consumption	2.0 W	5.6 Watts	10.0 Watts	8.8Watts	8.1 Watts	15.2 Watts
Power Input	AC: 100 ~ 240 V (54V/1.574A power adapter	AC: 100-240V	AC: 100-240V	AC: 100-240V	AC: 100-240V	AC: 100-240V
Energy Efficiency Ethernet (EEE)	✓					
Comply with RoHS 6	✓					

Gigabit Ethernet Unmanaged Switches

The DGS-1000 Series consists of Unmanaged Gigabit Switches designed for cost-effective Small Office Home Office (SOHO) and workgroup connection. They support full duplex operation, provide IEEE 802.3x flow control for reliable data transfer, and auto MDI/MDIX to eliminate the need for cross-over cables, thus simplifying installation. They make use of D-Link Green™ technology, too, which reduces power consumption and provides a longer product life without sacrificing operational performance or functionality. Recyclable packaging and minimised use of harmful substances (RoHS compliant) make this switch series truly environmentally friendly since it also complies with the Energy-Efficient Ethernet standard.

Key Series Features

- Power savings by link status
- Power savings by cable length detection
- Jumbo frame
- IEEE 802.3x Flow Control
- Auto MDI/MDIX
- Quality of Service (QoS)
- Cable diagnostics

*Functions Listed above are Model Dependent.

DGS-1000 Series

DGS-1005A

- 10/100/1000BASE-T ports x 5
- External power supply
- Desktop
- Fanless
- D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1008A

- 10/100/1000BASE-T ports x 8
- External power supply
- Desktop
- Fanless
- D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1005C

- 10/100/1000BASE-T ports x 5
- External power supply
- Desktop
- Fanless
- Energy-Efficient Ethernet (EEE)

DGS-1008C

- 10/100/1000BASE-T ports x 8
- External power supply
- Desktop
- Fanless
- Energy-Efficient Ethernet (EEE)

DGS-1005P

- 10/100/1000BASE-T ports x 5
- 4 Ports PoE
- External Power Supply
- Desktop
- 60 W PoE Power Budget

DGS-1008P

- 10/100/1000BASE-T ports x 8
- Supports 802.3af PoE & 802.3at PoE+ (Port 1- 4)
- 68 W PoE Power Budget
- External Power Supply
- Desktop, Fanless, D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1008MP

- 10/100/1000BASE-T PoE ports x 8
- Supports 802.3af PoE & 802.3at PoE+
- 125 W PoE Power Budget
- Internal Power Supply, Fanless
- Desktop with rack-mountable kit
- D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1016A

- 10/100/1000BASE-T ports x 16
- External power supply
- Desktop
- Fanless
- D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1024A

- 10/100/1000BASE-T ports x 24
- External power supply
- Desktop
- Fanless
- D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1016C

- 10/100/1000BASE-T ports x 16
- Internal Power Supply
- 11in, 1U desktop with rack-mountable kit
- Fanless
- Energy-Efficient Ethernet (EEE)

DGS-1016S

- 10/100/1000BASE-T ports x 16
- External power supply
- Desktop
- Fanless
- D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1024C

- 10/100/1000BASE-T ports x 24
- Internal Power Supply
- 11in, 1U desktop with rack-mountable kit
- Fanless
- Energy-Efficient Ethernet (EEE)

DGS-1016D

- 10/100/1000BASE-T ports x 16
- Internal Power Supply
- 11in, 1U desktop with rack-mountable kit
- Fanless
- D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1024D

- 10/100/1000BASE-T ports x 24
- Internal Power Supply
- 11in, 1U desktop with rack-mountable kit
- Fanless
- D-Link Green™ & Energy-Efficient Ethernet (EEE)

DGS-1026MP

- 10/100/1000BASE-T PoE ports x 24
- 2 Gigabit Combo Uplink ports (Ethernet/SFP)
- Internal Power Supply
- Supports 802.3af PoE and 802.3af PoE+
- 370 W PoE Power Budget
- 19in, 1U rack-mount
- 2 x Smart Fans
- Energy-Efficient Ethernet (EEE)

DGS-105/108 Series

DGS-105

- 10/100/1000BASE-T ports x 5
- Robust metal product housing
- Cable diagnostics function
- Fanless
- D-Link GreenTM & Energy-Efficient Ethernet (EEE)

DGS-108

- 10/100/1000BASE-T ports x 8
- Robust metal product housing
- Cable diagnostics function
- Fanless
- D-Link GreenTM & Energy-Efficient Ethernet (EEE)

MODEL		DGS-1005A	DGS-1008A	DGS-1005C	DGS-1008C	DGS-1008P	DGS-1008MP
Interfaces	1000BASE-T (Gigabit)	5	8	5	8	8	8
General Features	Switching Capacity	10 Gbps	16 Gbps	10 Gbps	16 Gbps	16 Gbps	16 Gbps
	Max Packet Forwarding Rate	7.44 Mpps	11.9 Mpps	7.44 Mpps	11.9 Mpps	11.9 Mpps	11.9 Mpps
	Packet Buffer Memory	128 KB	128 KB	256 KB	256 KB	256 KB	192 KB
	MAC Address Table	2000	8000	2000	8000	8000	4000
	Flow Control	IEEE 802.3x Flow Control					
	Jumbo Frame	9216 Bytes	9216 Bytes	9216 Bytes	9216 Bytes	9216 Bytes	9216 Bytes
Quality of Service (QoS)	Standard	802.1p	802.1p	802.1p	802.1p	802.1p, DSCP	
	Number of Queues	4	4	4	4	4	
	Mode	Strict	Strict	Strict	Strict	Strict	
Power over Ethernet	Standard					802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
	PoE Ports					4	8
	PoE Power Budget					68 W	140 W
Physical and Environment	Power Supply	External					Internal
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)		IEEE 802.3az Energy-Efficient Ethernet (EEE)		Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)	
	Number of Fans	0					
	Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
	Operating Humidity	10% to 90% RH Non-Condensing				0% to 95% RH Non-Condensing	5% to 90% RH Non-Condensing
	Dimensions (W x D x H)	91 x 73 x 22 mm	131 x 82 x 22 mm	106 x 87 x 21.45mm	151.2 x 96 x 22 mm	190 x 120 x 38 mm	280 x 180 x 44 mm

MODEL		DGS-1016A	DGS-1024A	DGS-1016C	DGS-1024C	DGS-1016D	DGS-1024D
Interfaces	1000BASE-T (Gigabit)	16	24	16	24	16	24
General Features	Switching Capacity	32 Gbps	48 Gbps	32 Gbps	48 Gbps	32 Gbps	48 Gbps
	Max Packet Forwarding Rate	23.81 Mpps	35.71 Mpps	23.81 Mpps	35.71 Mpps	23.81 Mpps	35.71 Mpps
	Packet Buffer Memory	2 Mbits	3.5 Mbits	256 KB	512 KB	512 KB	512 KB
	MAC Address Table	8000	16000	8000	16000	8000	8000
	Flow Control	IEEE 802.3x Flow Control					
	Jumbo Frame	9600 Bytes	9600 Bytes	9216 Bytes	9216 Bytes	9216 Bytes	9600 Bytes
Quality of Service (QoS)	Standard			802.1p	802.1p	802.1p	802.1p
	Number of Queues			8	8	4	4
	Mode			Strict	Strict	Strict	Strict
Power over Ethernet	Standard						
	PoE Ports						
	PoE Power Budget						
Physical and Environment	Power Supply	External		Internal			
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)		IEEE 802.3az Energy-Efficient Ethernet (EEE)		Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)	
	Number of Fans	0					
	Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
	Operating Humidity	5% to 90% RH Non-Condensing		10% to 90% RH Non-Condensing		5% to 90% RH Non-Condensing	
	Dimensions (W x D x H)	231 x 158 x 46 mm	257 x 178 x 46 mm	282.2 x 178 x 44.5 mm	282.2 x 178 x 44.5 mm	280 x 180 x 44 mm	280 x 180 x 44 mm

MODEL		DGS-105	DGS-108
Interfaces	1000BASE-T (Gigabit)	5	8
General Features	Switching Capacity	10 Gbps	16 Gbps
	Max Packet Forwarding Rate	7.44 Mpps	11.9 Mpps
	Packet Buffer Memory	128 KB	
	MAC Address Table	2000	8000
	Flow Control	IEEE 802.3x Flow Control	
	Jumbo Frame	9216 Bytes	
Quality of Service (QoS)	Standard	IEEE 802.1p	
	Number of Queues	4 Queues	
	Mode	Strict	
Physical and Environment	Power Supply	External	
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)	
	Number of Fans	0	
	Operating Temperature	0°C to 40°C	
	Operating Humidity	10% to 90% RH Non-Condensing	
	Dimensions (W x D x H)	100 x 98 x 28 mm	162 x 102 x 28 mm

Fast Ethernet Unmanaged Switches

The DES-1000 Series of Fast Ethernet Unmanaged Switches is designed for cost effective Small Office Home Office (SOHO) and workgroup connection. They use standard CAT5 copper twisted-pair wires as the network cable, and support full/half duplex operation for 10/100 Mbps speeds. These switches provide IEEE 802.3x flow control for reliable data transfer, and auto MDI/MDI-X to eliminate the need for cross-over cables, thus simplifying installation.

DES-1000 Series

DES-1005A / DES-1008A

• 10/100BASE-TX ports x 5 or 8
• External power supply
• Desktop
• Fanless
• D-Link Green™ & Energy-Efficient Ethernet (EEE)

DES-1005C / DES-1008C

• 10/100BASE-TX ports x 5 or 8
• External power supply
• Desktop
• Fanless
• Energy-Efficient Ethernet (EEE)

DES-1016A / DES-1024A

• 10/100BASE-TX ports x 16 or 24
• External power supply
• Desktop
• Fanless
• D-Link Green™ & Energy-Efficient Ethernet (EEE)

DES-1016C / DES-1024C

• 10/100BASE-TX ports x 16 or 24
• Internal power supply
• 11in, 1U desktop with rack-mountable kit
• Fanless
• Energy-Efficient Ethernet (EEE)

DES-1016D / DES-1024D

• 10/100BASE-TX ports x 16 or 24
• Internal power supply
• 11in, 1U desktop with rack-mountable kit
• Fanless
• D-Link Green™ & Energy-Efficient Ethernet (EEE)

DES-1008PA

• 10/100BASE-TX ports x 8
• Supports 802.3af PoE (Port 1 - 4)
• 58 W PoE Power Budget
• External power supply
• Desktop, Fanless
• D-Link Green™ & Energy-Efficient Ethernet (EEE)

DES-1018MP

• 10/100BASE-TX ports x 16
• 10/100/1000BASE-T/SFP Combo ports x 2
• Supports 802.3af PoE (Port 1 - 16)
• 246.4 W PoE Power Budget
• 19in rack-mountable, EEE
• 1 Smart Fan, Internal power supply

MODEL		DES-1005A	DES-1008A	DES-1005C	DES-1008C	DES-1008PA
Interfaces	100BASE-TX (Fast Ethernet)	5	8	5	8	8
General Features	Switching Capacity	1 Gbps	1.6 Gbps	1 Gbps	1.6 Gbps	1.6 Gbps
	Max Packet Forwarding Rate	0.74 Mpps	1.19 Mpps	0.74 Mpps	1.19 Mpps	1.19 Mpps
	Packet Buffer Memory	48 KB	96 KB	96 KB	96 KB	96 KB
	MAC Address Table	2000	2000	2000	2000	2000
	Flow Control	IEEE 802.3x Flow Control				
	Jumbo Frame			2048 Bytes	2048 Bytes	
Quality of Service (QoS)	Standard	802.1p				
	Number of Queues					
	Mode					
Power over Ethernet	Standard					802.3af (PoE)
	PoE Ports					4
	PoE Power Budget					58 W
Physical and Environment	Power Supply	External				
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)		Energy-Efficient Ethernet (EEE)		Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)
	Number of Fans	0				
	Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
	Operating Humidity	10% to 90% RH Non-Condensing				5% to 90% RH Non-Condensing
	Dimensions (W x D x H)	87 x 47.85 x 21.7 mm	141.5 x 78.5 x 23.8 mm	88 x 48 x 21.45 mm	131 x 54 x 21 mm	140 x 77 x 27 mm

MODEL		DES-1016A	DES-1024A	DES-1016C	DES-1024C	DES-1016D	DES-1024D
Interfaces	100BASE-TX (Fast Ethernet)	16	24	16	24	16	24
General Features	Switching Capacity	3.2 Gbps	4.8 Gbps	3.2 Gbps	4.8 Gbps	3.2 Gbps	4.8 Gbps
	Max Packet Forwarding Rate	2.38 Mpps	3.57 Mpps	2.38 Mpps	3.57 Mpps	2.38 Mpps	3.57 Mpps
	Packet Buffer Memory	2 Mbits	2.5 Mbits	256 KB	256 KB	2 Mbits	2 Mbits
	MAC Address Table	8000	8000	8000	8000	8000	8000
	Flow Control	IEEE 802.3x Flow Control					
	Jumbo Frame			9216 Bytes	9216 Bytes		
Quality of Service (QoS)	Standard	802.1p	802.1p	802.1p	802.1p	802.1p	802.1p
	Number of Queues	2	2	4	4	4	4
	Mode	Strict	Strict	Strict	Strict	Strict	Strict
Physical and Environment	Power Supply	External	External	Internal	Internal	Internal	Internal
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)		IEEE 802.3az Energy-Efficient Ethernet (EEE)		Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet (EEE)	
	Number of Fans	0					
	Operating Temperature	0°C to 40°C					
	Operating Humidity	10% to 90% RH Non-Condensing					
	Dimensions (W x D x H)	155.7 x 122 x 41 mm	231 x 158 x 46 mm	282.2 x 151 x 44.5 mm	282.2 x 151 x 44.5 mm	280 x 125.8 x 44 mm	280 x 125.8 x 44 mm

MODEL		DES-1018MP
Interfaces	100BASE-TX (Fast Ethernet)	16
	10/100/1000BASE-T/SFP Combo Slots	2
General Features	Switching Capacity	7.2 Gbps
	Max Packet Forwarding Rate	5.36 Mpps
	Packet Buffer Memory	384 KB
	MAC Address Table	8000
	Flow Control	IEEE 802.3x Flow Control
Power Over Ethernet (PoE)	Standard	802.3af (PoE)
	PoE Ports	16
	PoE Power Budget	246.4 W
Physical and Environment	Power Supply	Internal
	Power-Saving Technology	IEEE 802.3az Energy-Efficient Ethernet (EEE)
	Number of Fans	1
	Operating Temperature	0°C to 40°C
	Operating Humidity	0% to 95% RH Non-Condensing
	Dimensions (W x D x H)	280 x 210 x 44 mm

Industrial Ethernet Switches
Rugged and reliable

D-Link's Industrial Ethernet Switches are designed specifically to withstand wide temperature range, vibrations and shock. These rugged, yet easy to deploy, switches have superior environmental specification compared to those of commercial network switches. With its hardened design combined with high availability network features, these switches form vital parts of any network infrastructure facilitating the increasing demand for smart cities, city-wide surveillance and wireless connectivity.

Designed for a more connected future

❶ Rugged, Hardened Design
Design to operate in wide temperature ranges, vibration, shock, allowing the switches to be deployed in enclosures or cabinets in outdoor locations

❷ High Availability
Comprehensive network redundancy features with fast fault recovery, together with advanced security features provides industrial-grade reliability and protection

❸ Flexible Options
Wide selection of port density, media and PoE provides customer with the flexibility to choose the right switch that best fits their requirement

DIS-M100G-SW Series	DIS-100E/100G Series	DIS-200G Series	DIS-300G Series	DIS-700G Series
Industrial 10/100/1000Base-T to SFP Media Converter for long distance connection	Industrial Fast Ethernet / Gigabit Unmanaged Switches for edge deployment	Industrial Gigabit Smart Managed Switches for aggregation deployment	Industrial Gigabit Managed Switches for aggregation deployment	Industrial Layer 2+ Gigabit Managed Switch for core deployment
Plug and play; compact size	Plug and play; compact size	Cost-effective; compact size	High performance; compact size	High performance, dual redundant DC input
-40 to 75° operating temperature	-40 to 75° operating temperature	-40 to 65° operating temperature	-40 to 75° operating temperature	-40 to 75°C operating temperature
DIN-Rail mounting	DIN-Rail mounting	DIN-Rail mounting	DIN-Rail mounting	Rack mounting
1-Port	5-port	12-port	8/12/14-port	24-port SFP + 4-port SFP+
Redundant power inputs	Redundant power inputs	Optional PoE 802.3af/at support	Optional PoE 802.3af/at support	Supports intelligent Quality of Service (QoS)
IEC Shock / Freefall / Vibration certified	Optional PoE 802.3af/at support (DIS-100G)	VLAN support for added security	VLAN support for added security	Optimisation of network traffic

Deployment Scenario

DIS-700G Series

Fast Ring Failover <20 ms

Fast Ring Failover <20 ms

Cameras

PoE Cameras

DIS-300G Series

PoE Cameras

Cameras

PoE Cameras

Access points

Access points

Access points

DIS-100G Series

PoE Access points

Access points

MODEL	ACCESSORIES
DIS-S301SX	1-port Mini-GBIC SFP to 1000BaseSX Multi-Mode Fibre Transceiver • up to 550 m • -40~85°C operating temperature
DIS-S302SX	1-port Mini-GBIC SFP to 1000BaseSX Multi-Mode Fibre Transceiver • up to 2 km • -40~85°C operating temperature
DIS-S310LX	1-port Mini-GBIC SFP to 1000BaseLX Single-Mode Fibre Transceiver • up to 10 km • -40~85°C operating temperature
DIS-S330EX	1-port Mini-GBIC SFP to 1000BaseEX Single-Mode Fibre Transceiver • up to 30 km • -40~85°C operating temperature
DIS-S350LHX	1-port Mini-GBIC SFP to 1000BaseLHX Single-Mode Fibre Transceiver • up to 50 km • -40~85°C operating temperature
DIS-S380ZX	1-port Mini-GBIC SFP to 1000BaseZX Single-Mode Fibre Transceiver • up to 80 km • -40~85°C operating temperature
DIS-H30-24	30W 24VDC Ultra Slim DIN Rail PSU • Input: 85 ~ 264VAC • Output: 21.6 ~ 29V DC • Din rail TS-35/7.5 or 15 mountable • -30~70°C operating temperature
DIS-H60-24	60W 24VDC Ultra Slim DIN Rail PSU • Input: 85 ~ 264VAC • Output: 21.6 ~ 29V DC • Din rail TS-35/7.5 or 15 mountable • -30~70°C operating temperature
DIS-N240-48	240W 48VDC DIN Rail PSU • Input: 90 ~ 264VAC • Output: 48 ~ 55V DC • Din rail TS-35/7.5 or 15 mountable • -20~70°C operating temperature
DIS-N480-48	480W 48VDC DIN Rail PSU • Input: 90 ~ 264VAC • Output: 48 ~ 55V DC • Din rail TS-35/7.5 or 15 mountable • -20~70°C operating temperature

SFP TRANSCEIVERS

POWER SUPPLIES

Industrial Layer 2+
Gigabit Managed Switch

DIS-700G Series

The DIS-700G Series Industrial Layer 2+ Gigabit Managed Switch are designed specifically to withstand temperature range, vibrations and shock. These rugged, yet easy to deploy, switches have superior environmental specification compared to those of commercial network switches. With its hardened design combined with high availability network features, these switches form vital parts of any network infrastructure facilitating the increasing demand for smart cities, city-wide surveillance and wireless connectivity.

The DIS-700G-28XS L2+ Gigabit Managed Switch with 10 Gigabit uplinks is a 28-port aggregation switch. It provides high overall throughput and reduces the response time for time-sensitive video, voice and data applications. It offers advanced intelligent Quality of Service (QoS) features such as SPQ, WRR, SPQ+ WRR scheduling schemes with hierarchical per port, per queue shaping & scheduling with bandwidth management.

Series include the below models

DIS-700G-28X

- 24 x SFP ports
- 4 x 10G SFP+
- 1 U Rack Mount
- Highly resistant IP30-rated metal case
- Easy-to-control management interfaces and security
- Operating Temperature: -40°to 75°C
- Certified for vibration, shock, free-fall, EMC

	MODEL	ACCESSORIES
POWER SUPPLIES	DIS-H30-24	30W 24VDC Ultra Slim DIN Rail PSU • Input: 85 ~ 264VAC • Output: 21.6 ~ 29V DC • Din rail TS-35/7.5 or 15 mountable • -30~70°C operating temperature
	DIS-H60-24	60W 24VDC Ultra Slim DIN Rail PSU • Input: 85 ~ 264VAC • Output: 21.6 ~ 29V DC • Din rail TS-35/7.5 or 15 mountable • -30~70°C operating temperature
	DIS-N240-48	240W 48VDC DIN Rail PSU • Input: 90 ~ 264VAC • Output: 48 ~ 55V DC • Din rail TS-35/7.5 or 15 mountable • -20~70°C operating temperature
	DIS-N480-48	480W 48VDC DIN Rail PSU • Input: 90 ~ 264VAC • Output: 48 ~ 55V DC • Din rail TS-35/7.5 or 15 mountable • -20~70°C operating temperature
SFP TRANSCEIVERS	DIS-S301SX	1-port Mini-GBIC SFP to 1000BaseSX Multi-Mode Fibre Transceiver • up to 550 m • -40~85°C operating temperature
	DIS-S302SX	1-port Mini-GBIC SFP to 1000BaseSX Multi-Mode Fibre Transceiver • up to 2 km • -40~85°C operating temperature
	DIS-S310LX	1-port Mini-GBIC SFP to 1000BaseLX Single-Mode Fibre Transceiver • up to 10 km • -40~85°C operating temperature

	MODEL	DIS-700G-28XS
HARDWARE	Number of Fast Ethernet ports	
	Number of Gigabit ports	
	Number of SFP ports	24
	Number of 10G SFP+ ports	4
	PoE standards	
	PoE power budget	
	PoE capable ports	
	Input voltage range	Dual 20-58 VDC
	Compatible power supplies	Built-in
	Redundant power input option	
	Mounting option	19" rack mount
	Operating temperature range	-40 to +75°C
	Vibration, shock and freefall certification	
	NEMA-TS2, EN50121-4 (compliant)	
	EMC certification	
	Ingress protection	
L2	MAC address	8K
	802.1D STP, 802.1w RSTP, 802.1s MSTP	•
	Fast Failover Protection Rings	• (<20ms)
	802.3ad, 802.1AX link aggregation	•
VLAN	VLAN group (max static)	2048
	Port/MAC/protocol-based VLAN, GVRP	•
	Port-based double VLAN	•
	Auto-Servillance, Voice VLAN	
	Multicast protocols	IGMP v1/v2/v3, IGMP snooping
QOS	802.1p	
	Policy-based access control engine	Multi-layer ACL
	Number of queues per port	8
	Traffic shaper	Port/queue-based shaping & scheduling
	Traffic policer	TrTCM
SECURITY	Multicast/Broadcast/Flooding Storm Control	•
	Access control	IP/MAC/policy-based
AAA	802.1X access control	•
	RADIUS/TACACS+ authentication	RADIUS only
MANAGEMENT	SNMP (v1/v2c/v3), RMON v1	•
	Web-based management	•
	Command line interface (CLI)	•
	HTTPs, SSH	•
	Syslog	•

Key Series Features

FLEXIBILITY AVAILABILITY
- SFP & SFP+ port for high bandwidth connection
- Plug-and-Play installation

ROBUST AND HIGH-REDUNDANCY DESIGN
- Wide operating temperature (-40°to 75°C)
- High EMC endurance
- Durable IP-30-rated housing
- 19" rack mounting

FULLY CERTIFIED
- Shock - IEC 60068-2-27
- Freefall - IEC 60068-2-32
- Vibration - IEC 60068-2-6
- Ce, UL, FCC,
- RoHS
- WEEE compliant

ADVACED FEATURES
- Intelligent QoS
- Comprehensive Security Features
- Multi-Layer ACL
- Multicast/Broadcast/Storm Control
- 9KB Jumbo Frame
- Single & Multiple rings supported with < 20ms
- IEEE 802.1p QoS
- IEEE 802.1Q tag-based VLANs
- IEEE 802.1ad Double Tagging (Q in Q)
- Static trunk or Dynamic via LACP
- IEEE 802.1X authentication Network Access Control

Energy Efficient Ethernet

dlinkgreen

Layer 2 Gigabit Industrial Managed Switches

DIS-300G Series

The DIS-300G Series Industrial Gigabit Managed Switches are designed specifically to withstand wide temperature range, vibrations and shock. These rugged, yet easy to deploy, switches have superior environmental specification compared to those of commercial network switches. With its hardened design combined with high availability network features, these switches form vital parts of any network infrastructure facilitating the increasing demand for smart cities, city-wide surveillance and wireless connectivity. With its comprehensive feature set, DIS-300G managed switches are easy to configure, partition and organise user's network and provide reliable and quality of service. The DIS-300G-8PSW and DIS300G-14SPW switches are PoE switches which are compliant with both IEEE 802.3af and IEEE 802.3at PoE standards and delivering up to 30 watts power per port along with data on standard Ethernet cabling. These switches can be used to power any IEEE 802.3af/at compliant PoE PD devices, which eliminates the need for additional wiring. They also provide additional PoE power management features which can greatly reduce the deployment effort of planning PoE power budget.

Key Series Features

FLEXIBILITY AVAILABILITY
• Available in PoE and non-PoE Models
• SFP port for long distance connections
• Plug-and-Play installation

ROBUST AND HIGH-REDUNDANCY DESIGN
• Fanless, passive cooling design
• Wide operating temperature (-40°to 75°C)
• High EMC endurance
• Durable IP-30-rated housing
• Dual Power input for redundant power supplies
• Din-Rail and Wall mounting options

FULLY CERTIFIED
• Shock - IEC 60068-2-27
• Freefall - IEC 60068-2-32
• Vibration - IEC 60068-2-6
• Ce, UL, FCC,
• NEMA-TS2
• RoHS
• WEEE compliant

ADVACED FEATURES
• Multicast/Broadcast/Storm Control
• 9KB Jumbo Frame
• Ring Protection with < 20ms
• IEEE 802.1p QoS
• IEEE 802.1Q tag-based VLANs
• IEEE 802.1ad Double Tagging (Q in Q)
• Static trunk or Dynamic via LACP
• IEEE 802.1X authentication Network Access Control)

Series include the below models

DIS-300G-12SW
• 100/1000BASET ports x 8
• SFP slots x 4
• Fanless
• DIN Rail
• Highly resistant IP30-rated metal case
• Easy-to-control management interfaces and security
• Operating Temperature: -40°to 75°C
• Certified for vibration, shock, free-fall, EMCs

DIS-300G-8PSW
• 100/1000BASET ports x 6 (1-4 PoE Port)
• SFP slots x 2
• IEEE 802.3 af/at
• Fanless
• DIN Rail
• Highly resistant IP30-rated metal case
• Easy-to-control management interfaces and security
• Operating Temperature: -40°to 75°C
• Certified for vibration, shock, free-fall, EMC

DIS-300G-14PSW
• 100/1000BASET ports x 10 (1-8 PoE Port)
• SFP slots x 4
• IEEE 802.3 af/at
• Fanless
• DIN Rail
• Highly resistant IP30-rated metal case
• Easy-to-control management interfaces and security
• Operating Temperature: -40°to 75°C
• Certified for vibration, shock, free-fall, EMC

MODEL	DIS-300G-12SW	DIS-300G-8PSW	DIS-300G-14PSW
HARDWARE			
Number of Fast Ethernet ports			
Number of Gigabit ports	8	6	10
Number of SFP ports	4	2	4
Number of 10G SFP+ ports			
PoE standards		802.3af, 802.3at	802.3af, 802.3at, 60W (port 1 and 2 only)
PoE power budget		120 W	240 W
PoE capable ports		Ports 1-4, up to 30 W	Ports 1-2, up to 60 W Ports 3-8, up to 30 W
Input voltage range	12-58 VDC	48-58 VDC (54~58V VDC for PoE+)	48-58 VDC (54~58V VDC for PoE+)
Compatible power supplies	DIS-H30-24, DIS-H60-24, DIS-N240-48, DIS-N480-48	DIS-N240-48, DIS-N480-48	DIS-N240-48, DIS-N480-48
Redundant power input option	•	•	•
Mounting option	Din-rail and wall	Din-rail and wall	Din-rail and wall
Operating temperature range	-40 to +75°C	-40 to +75°C	-40 to +75°C
Vibration, shock and freefall certification			
NEMA-TS2, EN50121-4 (compliant)	•	•	•
EMC certification			
Ingress protection			
L2			
MAC address	8K	8K	8K
802.1D STP, 802.1w RSTP, 802.1s MSTP	•	•	•
Fast Failover Protection Rings	• (<20ms)	• (<20ms)	• (<20ms)
802.3ad, 802.1AX link aggregation	•	•	•
VLAN			
VLAN group (max static)	256	1024	1024
Port / MAC / protocol-based VLAN, GVRP	•	•	•
Port-based double VLAN	•	•	•
Auto-Servillance, Voice VLAN			
Multicast protocols	IGMP v1/v2, IGMP snooping	IGMP v1/v2, IGMP snooping	IGMP v1/v2, IGMP snooping
QOS			
802.1p	•	•	•
Policy-based access control engine			
Number of queues per port	8	8	8
Traffic shaper	Port-based	Port-based	Port-based
Traffic policer			
SECURITY			
Multicast/Broadcast/Flooding Storm Control	•	•	•
Access control	IP/MAC/policy-based	IP/MAC/policy-based	IP/MAC/policy-based
AAA			
802.1X access control	•	•	•
RADIUS/TACACS+ authentication	•	•	•
MANAGEMENT			
SNMP (v1/v2c/v3), RMON v1	•	•	•
Web-based management	•	•	•
Command line interface (CLI)	•	•	•
HTTPs, SSH	•	•	•
Syslog	•	•	•
Command Line Interface (CLI)	Full	Full	Full
Console port	RJ45	RJ45	RJ45

MODEL	ACCESSORIES
POWER SUPPLIES	
DIS-H30-24	30W 24VDC Ultra Slim DIN Rail PSU • Input: 85 ~ 264VAC • Output: 21.6 ~ 29V DC • Din rail TS-35/7.5 or 15 mountable • -30~70°C operating temperature
DIS-H60-24	60W 24VDC Ultra Slim DIN Rail PSU • Input: 85 ~ 264VAC • Output: 21.6 ~ 29V DC • Din rail TS-35/7.5 or 15 mountable • -30~70°C operating temperature
DIS-N240-48	240W 48VDC DIN Rail PSU • Input: 90 ~ 264VAC • Output: 48 ~ 55V DC • Din rail TS-35/7.5 or 15 mountable • -20~70°C operating temperature
DIS-N480-48	480W 48VDC DIN Rail PSU • Input: 90 ~ 264VAC • Output: 48 ~ 55V DC • Din rail TS-35/7.5 or 15 mountable • -20~70°C operating temperature
SFP TRANSCEIVERS	
DIS-S301SX	1-port Mini-GBIC SFP to 1000BaseSX Multi-Mode Fibre Transceiver • up to 550 m • -40~85°C operating temperature
DIS-S302SX	1-port Mini-GBIC SFP to 1000BaseSX Multi-Mode Fibre Transceiver • up to 2 km • -40~85°C operating temperature
DIS-S310LX	1-port Mini-GBIC SFP to 1000BaseLX Single-Mode Fibre Transceiver • up to 10 km • -40~85°C operating temperature

Layer 2 Gigabit Industrial Smart Managed Switches

DIS-200G Series

The DIS-200G Series Layer 2 Gigabit Outdoor Smart Managed Switches are equipped with 8 PoE-capable 10/100/1000BASE-T ports (PoE models), 2 10/100/1000BASE-T ports, and 2 SFP ports. These switches feature a robust design making them ideal for deployment in outdoor environments, capable of withstanding the harshest environments. The DIS-200G Series furthermore integrates advanced management and security functions to provide a complete solution. The DIS-200G Series switches are housed in a highly resistant IP30-rated metal casing to protect the switches from harsh environmental conditions. The high electromagnetic compatibility (EMC) protects the DIS-200G Series from unwanted effects when operating in environments with strong electromagnetic interference. Meanwhile, the fanless design extends the life of DIS-200G Series while also being able to operate in a wider temperature range of up to 75 °C. For increased flexibility, the DIS-200G Series can also be mounted on a DIN rail, wall mounted, or be installed in an equipment rack. Additionally, the DIS-200G Series features 6 kV surge protection on all copper ports to help prevent damage to the switch and connected devices caused by sudden power surges and lightning strikes. The in-built surge protection of up to 6 kV can mitigate the damage to the switch from both indoor and outdoor devices and network connections by absorbing the excess energy while still letting the amount of power through required for the switch to operate normally. This increases network reliability, reduces repair costs, and removes the need for replacement hardware in the event of an electrical surge or lightning strike.

Key Series Features

FLEXIBLE AVAILABILITY

- Available in PoE and non-PoE models
- Outdoor model variations with wider operating temperature ranges

ROBUST AND HIGH-REDUNDANCY DESIGN

- Fanless, passive cooling design
- High EMC endurance
- 6 kV surge protection on copper ports
- Ethernet Ring Protection Switching (ERPS)
- Dual power input for redundant power supplies

LAYER 2 FEATURES

- IEEE 802.1Q and port-based VLAN
- IEEE 802.1p Quality of Service (QoS)
- STP/RSTP/MSTP
- Port mirroring
- Link aggregation
- Bandwidth control
- Broadcast storm control
- IGMP/MLD Snooping

ADVANCED FEATURES

- Auto Surveillance VLAN 2.0 (ASV 2.0)

Series include the below models

DIS-200G-12S
- 10/100/1000BASE-T ports x 10
- SFP ports x 2
- Fanless
- DIN rail/wall/rack mountable installation
- 6 kV surge protection on copper ports
- IP30 housing to withstand harsh operating environments
- Operating Temperature: -40 to 65 °C

DIS-200G-12SW
- 10/100/1000BASE-T ports x 10
- SFP ports x 2
- Fanless
- DIN rail/wall/rack mountable installation
- 6 kV surge protection on copper ports
- IP30 housing to withstand harsh operating environments
- Operating Temperature: -40 to 75 °C

DIS-200G-12PS
- 10/100/1000BASE-T PoE ports x 8
- 10/100/1000BASE-T ports x 2
- SFP ports x 2
- 802.3af(PoE) and 802.3at(PoE+) support
- 240W PoE power budget
- Fanless
- DIN rail/wall/rack mountable installation
- 6 kV surge protection on copper ports
- IP30 housing to withstand harsh operating environments
- Operating Temperature: -40 to 65 °C

DIS-200G-12PSW
- 10/100/1000BASE-T PoE ports x 8
- 10/100/1000BASE-T ports x 2
- SFP ports x 2
- 802.3af(PoE) and 802.3at(PoE+) support
- 240W PoE power budget
- Fanless
- DIN rail/wall/rack mountable installation
- 6 kV surge protection on copper ports
- IP30 housing to withstand harsh operating environments
- Operating Temperature: -40 to 75 °C

Optional Accessories

Optional Accessories

- DIS-PWR40AC   40 W, 100 ~ 240 V AC input, 12 V DC output power adapter with 60 °C operating temperature for DIS-200G-12S and DIS-200G-12SW
- DIS-PWR180AC   180 W, 100 ~ 240 V AC input, 54 V DC output power adapter with 60 °C operating temperature for DIS-200G-12PS and DIS-200G-12PSW
- DIS-RK200G   Rack mount kit Standard 19" rack mounting kit

MODEL		NON POE		POE	
		DIS-200G-12S	DGS-200G-12SW	DIS-200G-12PS	DIS-200G-12PSW
Interfaces	Gigabit Ethernet	10			
	SFP Slots	2			
General Features	Switching Capacity	24 Gbps			
	Forwarding Mode	Store-and-Forward			
	Packet Buffer Memory	4 MB			
	MAC Address Table	up to 8K Entries			
	Flow Control	802.3x, HOL Blocking Prevention			
	MDI/MDIX	Configurable			
Layer 2 Features	Loop Protection	802.ID, 802.1W, 802.1S			
	803.2ad Link Aggregation	Max. 6 Groups per Device, 8 Ports per Group			
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both			
	Loopback Detection	✓			
	Cable Diagnostics	✓			
Virtual LAN (VLAN)	VLANs	4096 Static			
	GVRP	✓*			
	Auto Voice VLAN	✓			
	Auto Surveillance VLAN	✓			
Multicasting	Groups	64			
	Protocols	IGMP v1, v2, v3*			
Quality of Service (QoS)	Standard	802.1p			
	Number of Queues	4			
	Mode	Strict / WRR			
	CoS Handling	802.1p, TOS/IP Preference			
	Bandwidth Control	Port-Based			
Security	Per-Port MAC Limitation	✓			
	Static MAC	64			
	Storm Control	Broadcast / Multicast / Unicast			
	Traffic Segmentation	✓			
	D-Link SafeGuard Engine	✓			
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based			
	Web-Based Access Contol (WAC)	✓*			
	Web-Based Access Contol (MAC)	✓*			
	Web-Based Access Contol (NAP)	—			
	Guest VLAN	—			
Power over Ethernet	Standard	—	—	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
	PoE Ports	—	—	8	8
	PoE Power Budget	—	—	130W	130W
Management	Switch Access	Web GUI/D-Link Network Assistant			
	SNMP	v1 / v2c / v3*			
	DHCP	Client			
	RMON	—			
	TFTP Client	✓			
	Syslog	✓			
Physical and Environment	Power Supply	12-48 VDC, redundant dual inputs through terminal block/ 12 VDC through 4-pin power din		48-54 VDC, redundant dual inputs through terminal block/ 54 VDC through 4-pin power din	
	Power-Saving Technology	Link Status, Cable Length Detection, LED or Port Shutoff, Port Standby Mod, System Hibernation			
	Number of Fans	Fanless			
	Operating Temperature	-40℃ to 65℃	-40℃ to 75℃	-40℃ to 65℃	-40℃ to 75℃
	Operating Humidity	0% to 95% RH Non-Condensing			
	Dimensions (W x D x H)	210 x 171.2 x 48 mm			
Modules/ Transceivers	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT			

* This feature will be supported in future firmware release

Unmanaged Gigabit Industrial Switches

DIS-100G Series

The DIS-100G Series Gigabit Industrial Unmanaged Switches are equipped with a variety of port combinations including 10/100/1000BASE-T non-PoE or PoE ports, and SFP ports. These switches feature a robust design making them ideal for deployment in industrial and outdoor cabinet surveillance settings, capable of withstanding the harshest environments. The DIS-100G Series switches are housed in a highly resistant IP30-rated metal casing to help protect them from harsh environmental conditions. The high electromagnetic compatibility (EMC) helps protect the DIS-100G Series from unwanted effects when operating in environments with strong electromagnetic interference. The fanless design extends the life of the DIS-100G Series while also being able to operate in a wide temperature range from -40 ℃ up to 75 ℃. For increased flexibility, the DIS-100G Series can also be mounted on a DIN rail or conveniently mounted on a solid surface wall. In addition, the DIS-100G Series supports dual power input which allows for a redundant power supply configuration to make sure the switches continue to operate in the event of a primary power supply failure.

Series include the below models

DIS-100G-5PSW
- 10/100/1000BASE-T PoE ports x 4
- SFP ports x 1
- Fanless
- DIN Rail
- Highly resistant IP30-rated metal casing
- 802.3af/at (Up to 120W)
- Operating Temperature: -40 to 75℃

DIS-100G-5SW
- 10/100/1000BASE-T ports x 4
- SFP ports x 1
- Fanless
- DIN Rail
- Highly resistant IP30-rated metal casing
- Operating Temperature: -40 to 75℃

DIS-100G-5W
- 10/100/1000BASE-T ports x 5
- Fanless
- DIN Rail
- Highly resistant IP30-rated metal casing
- Operating Temperature: -40 to 75℃

*Take note that all the switches does not come equip with PSU (Power Supply Unit)

Key Series Features

FLEXIBLE AVAILABILITY
- Available in PoE and non-PoE models
- SFP port for long distance connections
- Plug-and-Play installation

ROBUST AND HIGH-REDUNDANCY DESIGN
- Fanless, passive cooling design
- Wide operating temperature (-40 ~ 75 ℃)
- High EMC endurance
- Durable IP30-rated housing
- Dual power input for redundant power supplies

FULLY CERTIFIED
- Shock - IEC 60068-2-27
- Freefall - IEC 60068-2-32
- Vibration - IEC 60068-2-6
- UL/CE/FCC
- NEMA-TS2
- EN50121-4 compliant
- UL C1D2 compliant (DIS-100G-5PSW)

ADVANCED FEATURES
- Multicast/Unicast/Storm Control
- 9 KB Jumbo Frame
- IEEE 802.3x Flow Control
- IEEE 802.1q Quality of Service (QoS) with 4 hardware queues per port

Optional Accessories

Optional SFP Transceivers

- DIS-S310LX   1000BASE-LX, single-mode, 10 km, -40 to 85 ℃ operating temperature
- DIS-S301SX   1000BASE-SX, multi-mode, 550 m, -40 to 85 ℃ operating temperature

Optional Accessories

- DPE-SP110   Outdoor PoE Ethernet Surge Protector
- DPE-SP110I   Ethernet Surge Protector

MODEL		NON POE		POE
		DGS-100G-5SW	**DGS-100G-5W**	**DIS-100G-5PSW**
General	Hardware Version	A1	A1	A1
	Number of Ports	4 x 10/100/1000BASE-T ports 1 x SFP port	5 x 10/100/1000BASE-T ports	4 x 10/100/1000BASE-T PoE ports 1x SFP ports
	Port Functions	IEEE 802.3 for Ethernet IEEE 802.3u for Fast Ethernet IEEE 802.3ab for Gigabit Ethernet IEEE 802.3z for Gigabit fiber IEEE 802.3x Flow Control IEEE 802.3af/at Power over Ethernet (DIS-100G-5PSW) IEEE 802.3az Energy-Efficient Ethernet (EEE)		
	Media Interface Exchange	Auto-MDI/MDIX adjustment for all twisted pair ports		
Performance	Switching Capacity	10 Gbps		
	Maximum Forwarding Rate	7.44 Mpps		
	MAC Address Table Size	Up to 2K entries		
	Transmission Method	Store-and-forward		
	Jumbo Frame	9 KB		
	Advanced Features	Broadcast/Multicast/Unicast Storm Control IEEE 802.1p Quality of Service (QoS) - 4 hardware queues per port		
PoE	PoE Standards	N/A	N/A	IEEE 802.3af/at
	PoE Capable Ports	N/A	N/A	Ports 1 to 4
	PoE Power Budget	N/A	N/A	Max. 120 W1
Physical	Diagnostic LEDs	ALM P1/P2 Link/Activity/Speed	ALM P1/P2 Link/Activity/Speed	ALM P1/P2 Link/Activity/Speed PoE status
	Power Input	12 to 58 V DC terminal block dual input	12 to 58 V DC terminal block dual input	48 to 58 V DC terminal block dual input
	Power Consumptions	Maximum: 3.82 W	Maximum: 3.18 W	Maximum: 131.57 W (PoE on) 4.46 W (PoE off)
	Alarm Relay			
	Heat Dissipation	13.03 BTU/hr	10.85 BTU/hr	448.94 BTU/hr (PoE on) 15.22 BTU/hur (PoE off)
	Weight	0.32 kg (0.71 lbs)	0.32 kg (0.71 lbs)	0.50 kg (1.10 lbs)
	Dimensions	112.2 x 29.1 x 89.4 mm (4.42 x 1.15 x 3.52 inches)	112.2 x 29.1 x 89.4 mm (4.42 x 1.15 x 3.52 inches)	139 x 29 x 107 mm (5.47 x 1.14 x 4.21 inches)
	Ventilation	Fanless, passive cooling		
	Operating Temperature	-40 to 75 ℃ (-40 to 167 °F)		
	Storage Temperature	-40 to 85 ℃ (-40 to 185 °F)		
	Operating Humidity	5% to 95% RH, non-condensing		
	Storage Humidity	5% to 95% RH, non-condensing		
	Material	IP30-rated metal casing		
	Installation	DIN rail/wall-mountable		
	MTBF	>25 years		
	Certifications	UL/CE/FCC NEMA-TS2 EN50121-4 compliant UL C1D2 compliant (DIS-100G-5PSW)		
	Safety	UL60950-1 (DIS-100G-5W/5SW) UL61010-1, UL61010-2-201, UL C1D2 (DIS-100G-5PSW)		
	EMI	47 CFR FCC Part 15 Subpart B (Class A) ICES-003 Issue 6 (Class A)		
	EMC	EN61000-6-2 EN61000-6-4		
	EMS	EN 61000-4-2 ESD Level 3 EN 61000-4-3 RS Level 3 EN 61000-4-4 EFT Level 3 EN 61000-4-5 Surge Level 3 EN 61000-4-6 CS Level 3 EN 61000-4-8		
	Environmental Tests	IEC 60068-2-27 Shock IEC 60068-2-32 Freefall IEC 60068-2-6 Vibration		
Warranty	Warranty	Limited lifetime warranty2		
Order Information	Part Number	Description		
	DIS-100G-5W	5 x 10/100/1000 Mbps ports switch with -40 to 75 ℃ operating range		
	DIS-100G-5SW	4 x 10/100/1000 Mbps ports + 1 x SFP port switch with -40 to 75 ℃ operating range		
	DIS-100G-5PSW	4 x 10/100/1000 Mbps PoE ports + 1 x SFP port switch with -40 to 75 ℃ operating range		
Optional SFP Transceivers	DIS-S310LX	1000BASE-LX, single-mode, 10 km, -40 to 85 ℃ operating temperature		
	DIS-S301SX	1000BASE-SX, multi-mode, 550 m, -40 to 85 ℃ operating temperature		
Optional Accessories	DPE-SP110	Outdoor PoE Ethernet Surge Protector		
	DPE-SP110I	Ethernet Surge Protector		

1 The actual available PoE budget depends on the power supply connected to the switch.
2 Limited lifetime warranty is available in the USA only. The warranty is void when not purchased from an authorized US D-Link reseller. Please visit us.dlink.com for a list of authorized US resellers.

250M Long Range PoE Industrial Switch

Aside from Unmanaged 250M PoE switches, D-Link also offers 250M Smart PoE switches that allow users to utilize smart L2 features like STP/RSTP/MSTP, configuring voice VLAN,IP-MAC-Port binding & etc. these model also comes with high power budget to suit each home/SOHO and SMB need.

The 250M Smart PoE switches comes with 2 different GE port configuration, 8 & 24 PoE ports which provide the best cost-effective 250M PoE switch with Smart Features.

Key Series Features

- 250 m Long Range PoE
- Supports 802.3af/at
- 6KV Lightning Protection
- Intelligent PD - Automatic Detection power status / Recover
- Fan-less Design
- Smart Managed Industrial(DIS-F2010PS-E)
- IEEE 802.1Q and port based VLAN
- IEEE 802.1p Quality of Service (QoS)
- STP/RSTP/MSTP
- Port mirroring
- Link aggregation
- Bandwidth control
- Broadcast storm control
- IGMP/MLD Snooping

Unmanage Industrial Switch

DIS-F1006PS-E

Smart Managed Industrial Switch

DIS-F2010PS-E

Built for your Need

Robust and cost-effective Outdoor shielded PoE solution to provide power for your PoE powered devices such as IP cameras, CCTV, VoIP, AP etc

6KV Lighing Protection

250M Transmission Distance

QoS Switch Video Streaming

INTELLIGENT PD Switch Automatic Detection Power Status/Recover

VLAN Switch

POE+ IEEE802.3af/at STANDARDS

DIN RAIL Installation

Fanless

Link Aggregation*

MODEL	DIS-F1006PS-E	DIS-F2010PS-E
Industrial Switch	Unmanaged	Smart Managed
Network Interfaces	4 x 10/100/1000 Mbps RJ45 ports 2 x Gigabit SFP ports	8 x 10/100/1000 Mbps RJ45 ports 2 x Gigabit SFP ports
Number of PoE Ports	4	8
PoE Standards	IEEE 802.3af (PoE) and 802.3at (PoE+), up to 30 Watts per port	
Console Port	-	RJ45
DIP Switches	VLAN (Port Isolation), Extend (Long Reach PoE), PoE (PoE Watchguard), QoS (Auto Priority)	
Protocols and Standards	IEEE802.3 10BASE-T IEEE 802.3u 100BASE-TX ANSI/IEEE 802.3 N Way auto-negotiation IEEE802.3ab 1000 BASE-T IEEE802.3z 1000 BASE-X IEEE802.3x Flow Control IEEE 802.3af/at standard	
Switching Capacity	12 Gbps	20 Gbps
Packet Forwarding Rate	8.9 Mpps	14.9 Mpps
MAC Address Table	8K entries	
VLANs	-	4K entries
Lightning Protection	6 KV	
Max Power Consumption with PoE	5W (120 W with PoE)	10 W (250 W with PoE)
Power	48 to 54 V DC terminal block dual input	
Fans	Fanless	
IP Rating	IP40	
DIN-RAIL Mount	Yes	
Dimensions (LxWxH)	163 × 46.5 × 110mm	163 × 46.5 × 110mm
Weight	1kg	1kg
Operating Temperature	-40 to 75 ℃	
Operating Humidity	5% to 95% non-condensing	
Storage Temperature	-40 to 75 ℃	
Storage Humidity	5% to 95% non-condensing	

Standard PoE

100m   100m   50m

250m PoE

250m

*Extend mode enabled, supports data rate up to 10Mbps with Cat5E cable and above

IP40 Ingress Protection Rating

-40° +75°

1 INDUSTRIAL
2 MEDICAL
3 HOUSE AUTOMATION
4 DEFENCE
5 BUSINESS

IoT Applications

250M Long Range PoE Switch

D-Link offer wide variety of PoE switches ranging from standard to Long range PoE and PoE with high power budget to suit each home/SOHO and SMB need.

Long Range PoE provide a breakthrough in technology to supply PoE power up to 250m which provide the best cost-effective powered solution

Key Series Features

- 250 m Long Range PoE
- Supports 802.3af/at
- 6KV Lightning Protection
- Quality of Service (QoS) on Video Streaming
- Intelligent PD – Automatic detection power status / Recover
- Supports VLAN

Built for your Need

Robust and cost-effective PoE solution to provide power for your PoE powered devices such as IP cameras, CCTV, VoIP, AP etc

6KV Lighing Protection

250 M 250m Transmission Distance

QoS Switch Video Streaming

INTELLIGENT PD Switch Automatic Detection Power Status/Recover

VLAN Switch

POE+ IEEE802.3af/at STANDARDS

DES-F1006P-E
DGS-F1010P-E
DGS-F1018P-E
DGS-F1026P-E

Up to 250m PoE and Data Transmission

Equipped with PoE extend technology, these PoE Switches have the capability to supply 802.3af/at PoE up to 250m with data transmission. Cost saving for long distance solution.

Standard PoE

100m 100m 50m

250m PoE

250m

Can support up to 250m* to save cost and more flexibility
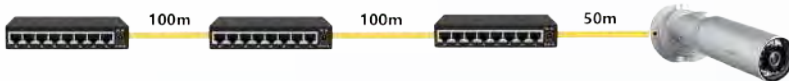
* Extend mode enabled, supported data rate up to 10Mbps with Cat 5E cable and above

6KV Surge Protection

D-Link 250M is enhanced with 6KV surge protection Effectively guard equipment from lighting damage especially if use on AP/IP camera install outdoor or at higher position

Enhanced with VLAN Function

With a flick of button, Isolate the downlink port to each other can effectively suppress network storms and improve network performance

DGS-F1018P-E

VLAN

Enhanced with Video QoS

Improve the Video Packet Priority and create high priority for video streaming, perfect solution for IP camera/CCTV

IP Camera

AP Router

DGS-F1018P-E

LiveView Monitoring

D-Link

250M Long Range PoE Smart Switch

Aside from Unmanaged 250M PoE switches, D-Link also offers 250M Smart PoE switches that allow users to utilize smart L2 features like STP/RSTP/MSTP, configuring voice VLAN,IP-MAC-Port binding & etc. these model also comes with high power budget to suit each home/SOHO and SMB need.

The 250M Smart PoE switches comes with 2 different GE port configuration, 8 & 24 PoE ports which provide the best cost-effective 250M PoE switch with Smart Features.

DGS-F1100-10PS-E

DGS-F1210-10PS-E

DGS-F1210-18PS-E
DGS-F1210-26PS-E
DGS-F1210-26MPS-E

Key Series Features

- 250 m Long Range PoE
- Supports 802.3af/at
- 6KV Lightning Protection
- Intelligent PD - Automatic detection power status / Recover
- Built-in SNMP MIB
- IEEE 802.1Q and port based VLAN
- IEEE 802.1p Quality of Service (QoS)
- STP/RSTP/MSTP
- Port mirroring
- Link aggregation
- Bandwidth control
- Broadcast storm control
- IGMP/MLD Snooping
- IP-MAC-Port Binding

Built for your Need

Robust and cost-effective Outdoor shielded PoE solution to provide power for your PoE powered devices such as IP cameras, CCTV, VoIP, AP etc

| 6KV Lighing Protection | 250m Transmission Distance | QoS Switch Video Streaming | INTELLIGENT PD Switch Automatic Detection Power Status/Recover | VLAN Switch | IEEE802.3af/at STANDARDS | DIN RAIL Installation | Fanless | Link Aggregation* |

MODEL NUMBER	DGS-F1100-10PS-E	DGS-F1210-10PS-E	DGS-F1210-18PS-E	DGS-F1210-26PS-E	DGS-F1210-26MPS-E
Network Interfaces	8 x 10/100/1000 Mbps RJ45 ports 2 x Gigabit SFP ports	8 x 10/100/1000 Mbps RJ45 ports 2 x Gigabit SFP ports	16 x 10/100/1000 Mbps PoE RJ45 ports 2 x Gigabit SFP ports	24 x 10/100/1000 Mbps PoE RJ45 ports 2 x Gigabit SFP ports	24 x 10/100/1000 Mbps PoE RJ45 ports 2 x Gigabit SFP ports
Number of PoE Ports	8	8	16	24	24
PoE Standards	IEEE 802.3af (PoE) and 802.3at (PoE+), up to 30 Watts per port				
Console Port	-	RJ45			
DIP Switches	VLAN (Port Isolation), Extend (Long Reach PoE), PoE (PoE Watchguard), QoS (Auto Priority)				
Protocols and Standards	IEEE802.3 10BASE-T IEEE 802.3u 100BASE-TX ANSI/IEEE 802.3 NWay auto-negotiation IEEE802.3ab 1000 BASE-T IEEE802.3z 1000 BASE-X IEEE802.3x Flow Control IEEE 802.3af/at standard				
Switching Capacity	20 Gbps	20 Gbps	36 Gbps	52 Gbps	52 Gbps
Packet Forwarding Rate	14.9 Mpps	14.9 Mpps	23.8 Mpps	38.7 Mpps	38.7 Mpps
MAC Address Table	8K entries				
VLANs	4K entries				
Lightning Protection	6 KV				
Max Power Consumption with PoE	7.4 W (100 W with PoE)w	8 W (150 W with PoE)	15 W (150 W with PoE)	18 W (250 W with PoE)	18 W (400 W with PoE)
Power	External Power adapter	Built-in PSU, 100-240VAC, 50-60Hz			
Fans	Fanless	1	1	1	3
Acoustics	-	35 dB(A)	35 dB(A)	35 dB(A)	45 dB(A)
Dimensions (LxWxH)	225 x 120 x 35 mm	285 × 180 x 44mm	440 x 180 x 44mm	440 x 180 x 44mm	440 x 293 x 44mm
Weight		1.15 kg	2.9 kg	3.0 kg	5.0 kg
Operating Temperature	0 to 40 °C				
Operating Humidity	10% to 90% non-condensing				
Storage Temperature	-20 to 70 °C				
Storage Humidity	10% to 95% non-condensing				

MODEL	DES-F1006P-E	DES-F1010P-E	DSS-100E-18P	DES-F1025P-E
Description	250m 6-Ports Fast Ethernet with 4 PoE Ports and 2 Uplink Ports	250m 10-Ports Fast Ethernet with 8 PoE Ports and 2 Uplink Ports	250m 16-Ports Fast Ethernet with 16 PoE Ports and 1 Gigabit Combo Uplink Port	250m 24-Ports Fast Ethernet with 24 PoE Ports and 1 Gigabit Combo Uplink Ports
Ethernet Speed	Fast Ethernet	Fast Ethernet	Fast Ethernet	Fast Ethernet
Downlink	4	8	16	24
Uplink	2	2	1 Combo Gigabit (Ethernet/SFP)	1 Combo Gigabit (Ethernet/SFP)
Housing	Metal	Metal	Metal	Metal
IEEE 802.3af (15.4W)	☐	☐	☐	☐
IEEE 802.3at (30W)	☐	☐	☐	☐
PoE Budget	60W	96W	230W	250W
Port support PoE powered up to 250m	1-4	1-8	9-16	1-8
VLAN Isolation	☐	☐	☐	☐
QoS (Video)	☐	☐	-	☐
PoE PD recovery	☐	☐	-	☐
Rackmountable	-	-	☐	☐
Lighting Protecting	6KV	6KV	6KV	6KV

MODEL	DGS-F1006P-E	DGS-F1010P-E	DGS-F1018P-E	DGS-F1026P-E
Description	250m 6-Ports Gigabit with 4 PoE Ports and 2 Uplink Ports	250m 10-Ports Gigabit with 8 PoE Ports and 2 Uplink Ports	250m 16-Ports Gigabit with 16 PoE Ports and 2 SFP Uplink Ports	250m 24-Ports Gigabit with 24 PoE Ports and 2 SFP Uplink Ports
Ethernet Speed	Gigabit	Gigabit	Gigabit	Gigabit
Downlink	4	8	16	24
Uplink	2	2	2 SFP	2 SFP
Housing	Metal	Metal	Metal	Metal
IEEE 802.3af (15.4W)	☐	☐	☐	☐
IEEE 802.3at (30W)	☐	☐	☐	☐
PoE Budget	60W	96W	150W	250W
Port support PoE powered up to 250m	1-4	1-8	1-8	1-8
VLAN Isolation	☐	☐	☐	☐
QoS (Video)	☐	☐	☐	☐
PoE PD recovery	☐	☐	☐	☐
Rackmountable	-	-	☐	☐
Lighting Protecting	6KV	6KV	6KV	6KV

D-Link

D-View 8
Network Management Software

Flexible and versatile, D-View 8 uses advanced web technology to provide a comprehensive standards-based management tool designed to centrally manage, monitor and maintain critical networks.

DV-800

D-View 8 is a comprehensive wired and wireless network management tool based on the server and probe architecture, supporting the troubleshooting, configuration, performance and security of your network. It provides end-to-end business management of IT, scalability of system architecture, and accommodation of new technology and infrastructure while supporting the management of D-Link and third-party devices.

D-View 8's standard, enterprise and telecom license options handle any network requirements, from SMBs to telecom deployments. The standard licence can manage up to 500 nodes for a single organization on multiple sites. Enterprise license handles up to 5000 nodes and supports multiple server probes, local or remote, across multiple sites and networks. Finally, the telecom license can manage more than 5000 nodes and support both local and remote server probes across multiple organizations or sites.
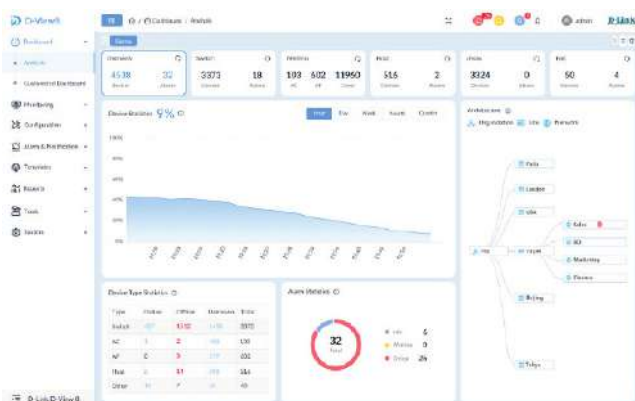
D-View 8 Features

Real-Time Network Analytics

Real-time network analysis provides insight into network operations, where network visibility is extremely important. With D-View 8 you can gain insight on device statistics, critical alarms of managed devices, running status of wired and wireless devices, CPU/memory utilization, wired and wireless throughput of devices.

sFlow Analyser

D-View 8 uses sFlow analyzer to detect network anomalies in your organization, especially when the network is large and complex. It helps collect the sFlow data from devices and generate related statistics reports.

Role-Based Administration

Provides administrators with both the tools and the ability to grant access and privileges to only those features and resources operators need.

Intuitive Dashboard

The user-friendly dashboard can be customized to your needs for network device overview, device statistics, alarm statistics, cpu/memory utilization, response time, temperature and many more.

Centralized Reporting

Provides performance of administrator, operator performance, and options for resource reporting Configuration and configuration changes, network device and connection status, for network properties, Alarms, and the health of network equipment. Report types are issued in real time and personalized easily. Device data is given for status, mark, IP address, MAC address, type of device, model, supplier, the location and many more.
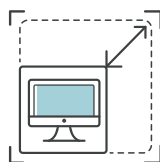
Highly Flexible and Scalable Deployment

Depending on your network size, D-View 8 has you covered with a whole suite of network capabilities and deployment options.

Rich Resource Management

Provides the exploration and topology of the network, including comprehensive network inventory and precise representations of how it is configured. Sponsored views include both Layer 2 and Layer 3, as well as Like VLAN topology and the ability, like a dashboard homepage, to create custom views.

Inventory Management

Provides holistic management using a single pane of glass for multi-vendor devices. Administrators can access tools to control and monitor several facets of a network topology, IP, or custom view, the system connects devices to the network and displays devices. Administrators may also assess a system's health through the specifics of the device page, which reveals real-time data, summary information, connectivity testing, and more.
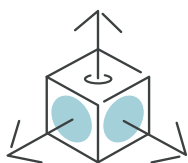
Batch Configuration

Configure multiple devices at the same time using SNMP or telnet.

Firmware Management

Conveniently upgrade firmware for multiple devices from a centralized location.
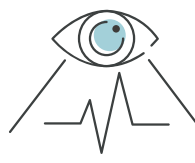
Service Monitoring

Monitors the availability and responsiveness of common network services via probes that you configure. The probes reside on local and remote D-View 8 software agents and test services from servers and devices that you select when configuring the probes.

Remote Management via App

Conveniently access D-View 8 remotely via the app when you're away from the office.

Technical Specifications		DV-800
License Types	Standard (DV-8005)	Enterprise (DV-800E)
Nodes Supported	< 500	< 5000
Server and Probe	• Single server, no support for redundancy • Single probe	• Supports 2 servers and HA (High Availability) • Multiple probes
Org-Site-Network Architecture	• Single organization • Multiple sites • Multiple networks	• Single organization • Multiple sites • Multiple networks
Features Supported	• Limited features	• All features
D-View Server System Requirements		
CPU	Quad-core, 3.5 GHz or above	
RAM	16 GB or above	
Disk	200 GB or above	
Supported OS (English versions only	• Windows Server 2012 64-bit (Standard Edition or above with the latest patches) • Windows Server 2012 R2 64-bit (Standard Edition or above with the latest patches) • Windows Server 2016 64-bit (Standard Edition or above with the latest patches) • Windows Server 2019 64-bit (Standard Edition or above with the latest patches) • Windows 10 64-bit (Professional Edition or above with the latest patches) • Ubuntu 14 64-bit or above • Debian 10 64-bit or above	
Database	MongoDB 3.6 or above	
Web Browser	• Microsoft Edge • Firefox • Chrome • Safari	
Remote Probe System Requirements		
CPU	Dual-core, 3.0 GHz or above	
RAM	4 GB or above	
Disk	200 GB or above	
Supported OS (English versions only	• Windows Server 2012 64-bit (Standard Edition or above with the latest patches) • Windows Server 2012 R2 64-bit (Standard Edition or above with the latest patches) • Windows Server 2016 64-bit (Standard Edition or above with the latest patches) • Windows Server 2019 64-bit (Standard Edition or above with the latest patches) • Windows 10 32/ 64-bit (Professional Edition or above with the latest patches) • Ubuntu 14 64-bit or above • Debian 10 64-bit or above	
Managed Capability	500 Nodes	
Client System Requirements		
CPU	Dual-core, 3.0 GHz or above	
RAM	4 GB or above	
Disk	100 GB or above	
Web Browser	• Microsoft Edge • Firefox • Chrome • Safari	

D-View 8 Features	DV-800
System Configuration	

Basic Settings	• Organization
	  • Configures the organization's name, country, time zone, etc
	  • Upload the organization logo in PNG or JPG file format (less than 2MB file size)
	• Mail Server:
	  • Configures mail server information and associated parameters
	• Forward Trap:
	  • Configures the trap receiver to receive incoming device trap messages
	• Forward Syslog:
	  • Configures the system log receiver to receive incoming device syslog messages to the D-View server
	• REST API Key Generation:
	  • To generate the API key which will be used by other application to acquire a token from D-View 8
	  • Third party applications can use tokens to acquire needed information from D-View 8 without sending username and password
	• SNMP Protocol Preference:
	  • Configures the SNMP protocol types, community name and related parameters
	• sFlow Settings:
	  • Configures sFlow collector's associated information
	• System Preferences:
	  • Configures the table display parameter and theme of D-View 8

User Management	• Users:
	  • Listing user information which contains user's email address, user name, login time, authentication type etc.
	  • Add, delete, remove users.
	• Role Privileges:
	  • Listing the types of user role which includes Organization/ Site/ Network Administrator roles.
	  • Listing each role's associated function privilege.
	• AD Server:
	  • Configures the Windows Active Directory Server's information.
	• RADIUS Server:
	  • Configures the RADIUS Server's information.
	  • Supports Primary and Secondary RADIUS Server configuration

Scheduling	• Configures the "Recurrent Schedule" and "Time Range Schedule"
	• Recurrent Schedule:
	  • Allows user to configure recurrent schedules with customized frequency and duration
	• Time Range Schedule:
	  • Allows user to configure a specific range of time, such as work hours or holidays

Server Management	• To monitor the status of D-View Core Server, Web Server and Probe • To check the real-time report of each server's status, which includes the utilization of CPU memory, hard drive and the network traffic

D-View 8 Logs	• D-View 8 features three types of logs: User Operation Log, System Log, Device Maintenance Log
	• User Operation Log:
	  • Keeps the records of user's sign in and sign out status
	• System Log:
	  • Keeps the records of D-View 8's running status for server and probes
	• Device Maintenance Log:
	  • Keeps users' configuration action log for devices

About Page	• The About page keeps the following information:
	  • D-View 8's edition, such as Standard, Enterprise or Telecom
	  • Brief description for the purchased edition
	  • Software version
	  • The latest update date
	  • The number of supported and used nodes
	  • System uptime information

D-View 8 Features	DV-800
Dashboard	

Analysis	• By default, there are six tabs in the analysis page, user can click each tag to display dedicate information. The Analysis page includes following tabs:
	  • Overview
	  • Switch
	  • Wireless
	  • Host
	  • sFlow
	  • PoE
	• Provides an overview of alarm statistics, on/off-line status, CPU/memory utilization, performance status, traffic statistics, and other information
	• Different categories may have slight variations in the information provided

Customized Dashboard	• Allows user to configure the dashboard to display the information they need and apply it to the homepage
Monitoring	

Network Discovery	• Allows user to configure the network discovery parameters, which include:
	  • Basic Information: the name of the network and site to discover. The discovered devices mange rule
	  • Probe Mode: to choose the primary and secondary probe
	  • Discovery Range: the range includes single IPv4/v6 Address, an IPv4/v6 Address range, an IPv4/v6 subnet or importing the range from a file
	  • Schedule: to define the discovery schedule which includes one-time discovery or recurrent discovery
	• Displays all discovery rules' running status and associated detail information

Device View	• Includes 5 categories: All, Managed, Unmanaged, Ignore and Conflicted • Displays several device types: Switch, Wireless, Host and Other • Displays the summary and detailed information of each device • User can click "System Name" to check each device's detailed information • User can click "IP" to select a protocol to log in to the device

Interface View	• Listing devices' connection relationship, which includes: • System/Model Name
	  • Device's IP address
	  • Interface and MAC address information
	  • VLAN information
	  • Uptime information
	  • D-View's organization information
	• Each item in the table provides search capability
	• MAC Locator: user can look up for specific MAC address by using the search function in the "Connected MAC" column.

Topology Map	• Displays connections between devices • Displays the on/off-line status of devices • Displays the link status of devices • PNG or JPG format files can be uploaded as the topology's background image • Supports Star, Tree, Circular and Grid type topology maps • Zoom in and out the topology map • Users can to create customized topologies

Connection View	• Listing the interface link information which includes: • Link status
	  • Link name
	  • Name and IP address of two devices
	  • The connected interface of each device
	  • The connected devices and interface information • Traffic statistics of TX and RX
	  • Link utilization
	  • Link type (LACP or general)
	  • Link's related info update time
	  • Source of the detection, such as LLDP or FDB
	• Clicking the link interface name's hyper link, more detailed information will be displayed, such as: • Summary information of the selected link
	• Monitor information of the selected link
	• Alarm information of the selected link

Rack View	• Provides users visualization of the actual device rack

sFlow Analyzer	• Collects the sFlow data from devices and generates related statistics reports • The statistics report information includes:
	  • Report based on the source or destination of packets • Report based on QoS rules
	  • Report based on layer 4 applications
	  • Report based on two nodes' conversation

Device Group	• Allows users to create device groups • Device grouping to simplify the firmware or configuration file maintenance

D-View 8 Features	DV-800

Configuration

Batch Configuration	• Allows customer to simultaneously configure multiple devices' parameters
	• Two sub-features:
	  • Quick Configuration: provides a GUI template for each function to apply the settings to multiple devices
	  • Advanced Configuration: allows user creating a profile for a specific type of device and the profile contains multiple features' parameters. User can apply the profile to multiple devices which have the same type/model as the profile.

Task Management	• Lists all user created tasks to understand the execution result
	• This feature includes:
	  • Current Tasks: lists the descriptions of current tasks
	  • Historical Tasks: lists the descriptions of historical tasks
	• Each task result will include a message to describe the success status. If a failure happens, it will also describe the reason of failure.

Firmware Management	• Allows users to manage device's firmware via D-View 8 • Uploading or downloading the firmware to or from the device • Upgrading device by specifying schedule • If firmware image already exists in D-View 8, user can just select the file without uploading a new one again • Displays the failure message to understand the root cause
Configuration Management	• Allows users to manage device configuration via D-View 8 • Users can backup or restore multiple device configuration files at the same time • Users can backup or restore the file by specifying a schedule • Supports baselined configuration file comparison, auto restore and generate alarm feature
File Management	• Allows users to compare configuration files to verify the differences between the two files • Allows users to upload or delete configuration or firmware files on D-View • Allows users to set the configuration file as the baselined file

Alarms & Notifications

Alarms	• Displays all alarm information collected from network devices. The alarms include: • Active Alarms • Lists all unresolved or unacknowledged network alarms • Historical Alarms • Lists all resolved or acknowledged network alarms

Trap & Syslog	• Displays the trap and system log receiving from devices or the system.
	• The trap log's information contains:
	  • Time received
	  • Device system name
	  • Device IP address
	  • SNMP version
	  • Trap description
	  • Original message of the trap
	  • The associated alarm of the trap (Users can select optional columns to display)
	  • The site and network which the related device belongs to (Users can select optional columns to display)
	• The syslog information contains:
	  • Time received
	  • System name of device generating the syslog
	  • Device IP address
	  • Syslog severity levels
	  • Syslog messsages
	  • The associated alarm of the syslog (Users can select optional columns to display)
	  • The site and network of related devices (Users can select optional columns to display)

Trap Editor	• Allows customer to edit a readable trap message for a specific trap OID

Monitor & Alarm Settings	• Monitor Settings
	  • Configure the monitor status to let D-View collect data according to the established time intervals
	• Alarm Settings
	  • Configure alarm rules to let D-View generate alarms when collected data matches user configured thresholds
	  • Configure the CLI to let devices and D-View servers execute when the alarms are triggered
	• Alarmable Items Definition
	  • Define the items for customized monitors and set thresholds to trigger alarms

Notification Center	• Allows user to set the notification method when alarms are triggered. The methods include: Web Scrolling Message, Email, App Push Notification and Execute script.

D-View 8 Features	DV-800
Template	
Device Template	• This feature allows user to easily add a device to be managed by D-View 8 if it's not in the default managed list; a useful tool especially for managing third party devices • Allows user to customize device's information by providing: • Model Name • Device Type • Vendor Name • Device's System OID (SOID) • Panel Template • Allow users to expand D-View's monitoring and configuration capabilities for device models. • Provide a way to associate the existed monitor and configuration templates
Device Management	• Allows user to create useful information to manage third party vendor and devices, which includes: • Vendor information • Vendor name • Vendor OID • Device Category • Category name • Photo of the category. The file type can be PNG or JPG format (less than 2 MB in size) • Device Type • Type name • Device category (data comes from Device Category) • Description
Panel Template	• Includes D-Link default device panel templates • For third party devices, user can create customized panels • Customizable panel details: • Panel name • Stacking support status • Description • Customizable Panel diagrams: • Panel logo (PNG/JPG files less than 2 MB in size) • Panel height and width • Port numbering rule • Port layout design using drag and drop
Monitor Template	• Provides different monitoring templates for collection of device information • Customizable Monitor Category for classification of monitored data: • Category name • Unit of the monitored value • Data collection protocol (SNMP/ HTTP / HTTPS) • Status switch to define whether collected data need to be merged in different time intervals • Category description • Monitored data source • Customizable Monitor Template to monitor and collect defined objects • Template name • Monitor category chosen • Device vendor name • Monitor interval • Monitor template description • Object's monitored OID information • Script file to process collected data
Configuration Template	• Provides multiple configuration templates to configure specific devices via D-View 8 • Multiple config templates can be assigned to Device Template to configure a specific device. • Customizable Configuration Category templates classified by function • Category name • Configuration type • Template description • Category feature parameter information • Customizable Configuration Template to configure specific devices via D-View 8 • Configuration template name • Vendor name • Template description • Selected configuration template to configure device • Method of configuration (CLI or SNMP) • CLI commands list (if selected) • Programable GUI object to simplify continuous operation

D-View 8 Features	DV-800
Report	

General Report Types	• Each report type can have configurable parameters such as data range and data collection time interval. When reports are generated, they can be exported immediately, saved to My Report, or upgraded to Scheduled Report according to the configured report parameters.
	• Device Reports
	  • Device Health
	  • Trap
	  • Syslog
	  • Device Top N
	• Wired Interface Reports
	  • Wired Traffic
	  • Wired Throughput Top N
	• Wireless Reports
	  • Wireless Client Count
	  • Wireless Traffic
	• Advanced Reports
	  • Inventory

Scheduled Report Types	• Each report type can be a one-time report or recurrent report. User can designate data source device(s) and levels of alarms to be displayed in the reports.
	  • Alarm Report
	  • Trap Report
	  • Syslog Report

Tools	
MIB Browser	• Retrieves and displays MIB data in readable format • Provides a graphical format to read MIB information
MIB Compiler	• Compiles device MIB files into D-View 8
ICMP Ping	• Checks device operation status and network performance
SNMP Test	• Checks device SNMP capabilities using SNMPv1, SNMPv2c or SNMPv3
Trace Route	• Checks the route and measures transit delay of packets crossing the network
Command Line Interface (CLI)	• Terminal interface for user to connect with device
File Comparison	• Lets user compare differences between two configuration files • Differences are highlighted in different colors to identify modification types

Wizard Types	• D-View 7 Upgrade Wizard
	  • A guide for upgrade from D-View 7 to D-View 8
	• Discovery Wizard
	  • Discovers the network and add devices to be monitored
	• Monitoring Wizard
	  • A guide to generate the topology, dashboard and rack views
	• Alarm Wizard
	  • A guide to configure the alarm and notification features

Order Information	DV-800
DV-800S-LIC	D-View 8 Standard License
DV-800E-LIC	D-View 8 Enterprise License
DV-800-SE-LIC	Upgrade License from Standard to Enterprise Edition

D-Link®
FOR BUSINESS

4G / 5G M2M VPN
SOLUTION GUIDE

IoT | Industrial 4.0 | Security

Unlock Business Capabilities. Anytime. Anyway
Next-Gen Connectivity for Next-Gen Business

Your Link to Business Success

5G/4G LTE M2M Solutions

5G/4G LTE M2M Solutions include the following two (2) components:

- High-speed Mobile VPN Industrial Routers and

- Device Management platform, D-ECS (D-Link Edge Cloud Solution)

D-Link M2M VPN industrial routers use the high-speed mobile 5G/4G mobile networks to establish bi-direction secure and redundant data transmission paths between the business control centers and the remote IoT (Industrial of Things) devices. D-Link D-DEC is an easy-to-use tool for the MIS to effectively manage remote D-Link M2M routers.

Designed for remote machine-to-machine and secure VPN deployments, D-Link 5G/4G LTE M2M VPN routers unlock the business capabilities anytime, anywhere with high-performance 5G/4G/3G connectivity easily.

With the adoption of both Artificial intelligence (AI) and machine learning (ML), businesses are able to make good decisions with vast amount of data including video, sound, measurements, etc collected from a network of industrial sensors.

Smart City M2M Application
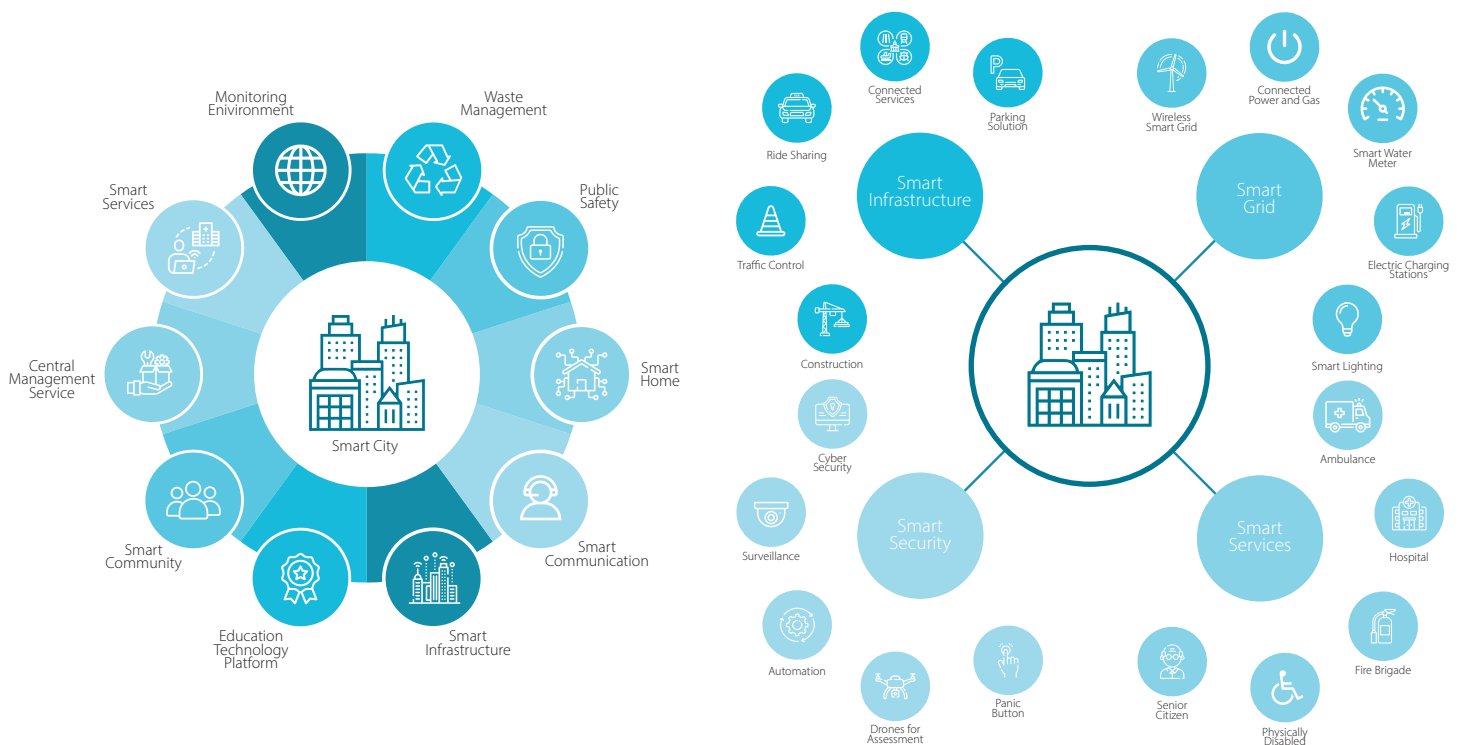
IoT Application

The application of Internet of Things [IoT] for enabling a city to be "smart" has solutions to a lot of the problems that we face today. Upliftment of the people is the primary objective of all social activities. Enabling a city to be smart, in all aspects, accelerates the process of making its citizens smart. It helps in empowering them to contribute to and solve the problems that they face in their life. Some of the fields where we can implement the industrial mobile solution to make your solution smart

Smart Building / Data Center Application
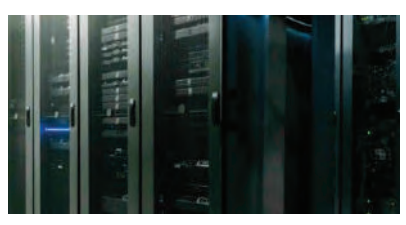
Data Center Monitoring

Smart Agriculture Application
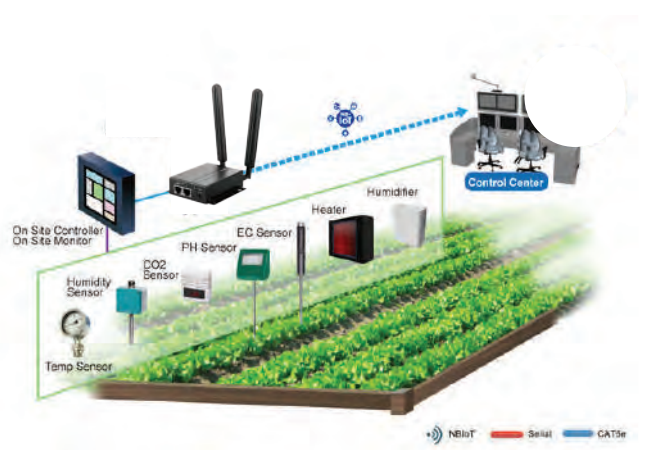
Smart Remote Rural Application

Monitoring of Solar Installations for Self-Supply

Monitoring of the Electrical Network
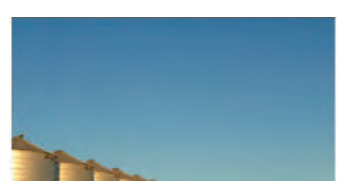
Storage Silos Monitoring

Water Monitoring in Rural Environments

Smart Factory / Industry Application

D-Link

Key Benefits

5G/4G LTE M2M Solutions

Multi-SIIM Design
Zero downtime with multi-SIM failover design

Secure VPN Connection
Integrated VPN Client and Server support for secure connectivity
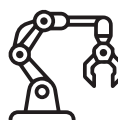
Industrial Grade Design
Zinc-plated steel casing for extra protection

Remote Management
Network management platform for massive IoT implementation

GPS Tracking
Centrel location tracking management

WiFi Connectivity
WiFi connection for multiple wireless clients

Outdoor WAN Connectivity
Providing Internet connection for outdor development

High Reliability of Network
Stable WAN access with WAN backup using M2M mobile routers

M2M Solves Your Internet Connectivity Problems

Unstable Internet Connection

Cloud-based applications require businesses to maintain reliable WAN connections. Install D-Link M2M dual-SIM routers together with firewall, businesses can use cost-effective mobile network as (a) WAN Backup to increase the redundancy for mission critical applications and (b) load balance to enhance of data transmission efficiency over multiple WAN connections.

In-accessible to Fixed Broadband

Without accessing to fiber/Cable/ADSL WAN at remote locations and in the public transportation, high-speed vmobile network with well-coverage is the best WAN infrastructure. D-Link M2M dual-SIM routers, supporting multiple frequency bands of 5G/4G (Cat 4/6) /3G, are able to work with any mobile operators.

Costly Fixed Broadband Charges

Remote IoT devices consume low-medium WAN bandwidth. Installation and monthly flat-rate subscription of fixed broadband for a network of IoT devices is expensive. D-Link M2M VPN routers connect IoT devices with low-cost, usage-based and INSTANT-ON mobile network. Built-in VPN client and server establish secure WAN transmission paths for data protection.

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Applications of M2M VPN Routers for Businesses

Scenario 1

WAN Backup & Load Balance over Fiber and Mobile Connectivity

To provide uninterruptible WAN connectivity, connect firewall/service router to D-Link M2M VPN routers and establish load-balance multi-WAN broadband infrastructure with auto-failover redundancy. Comparing with using 2nd fiber as WAN Backup link, D-Link M2M routers with mobile network can cut down the monthly broadband cost drastically when setting up WAN redundancy for general office networks.
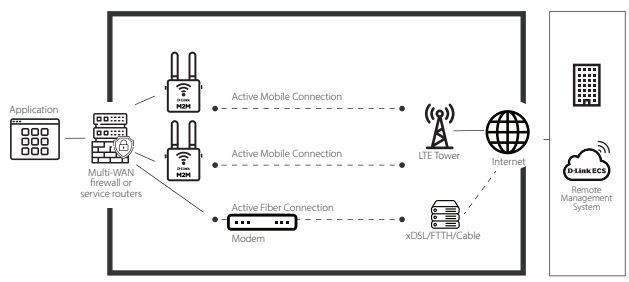
Scenario 2

Automatic Fiber-to-Mobile Failover

With D-Link M2M VPN router, failure of primary fiber broadband connection will automatically trigger the failover to backup mobile broadband network. For the mission critical businesses such as banking ATM, D-Link M2M VPN router adds extra redundancy with built-in dual SIM support.
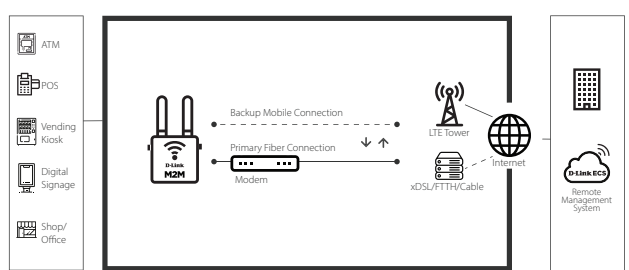
Scenario 3

Automatic Fiber-to-Mobile Failover

With D-Link M2M VPN router, failure of primary mobile broadband (SIM 01) will automatically trigger the failover to secondary backup mobile broadband network (SIM 02). This is the most cost effective, reliable and secure WAN connection to bring back the valuable and sensitive data from the remote IoT devices.
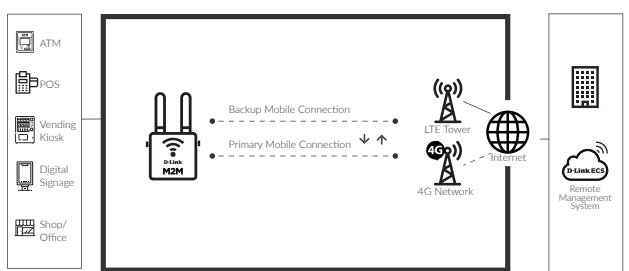
D-Link

DWM-3010

The D-Link DWM-3010 is a 5G M2M IoT gateway that delivers exceptional 5G broadband connectivity, facilitating IoT device-dense environments to operate with ultra-low latency, Gigabit-plus speeds and high reliability to support mobile operators with a competitive solution against traditional fixed line broadband services.

Digital Advertising and Billboards

Manufacturing and Production Lines

Renewable and Non-Renewable Energy
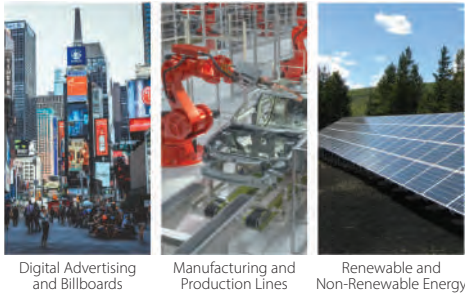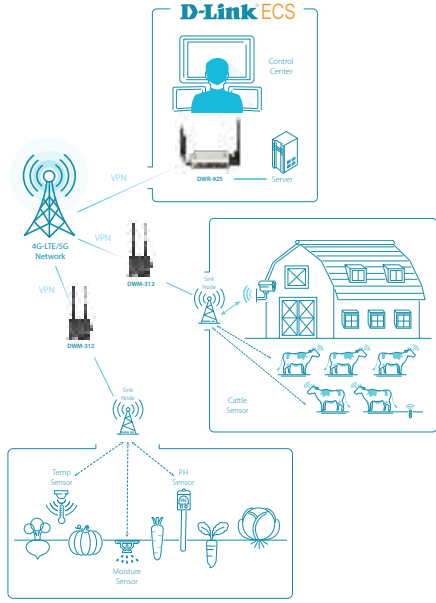
The Landscape of 5G

10x
Decrease in Latency:
Delivering latency as low as 1 ms.

10x
Connection Density:
Enabling more efficient signaling for IoT connectivity

10x
Experience Throughput:
Bringing more uniform, multi-Gbps peak rates

3x
Spectrum Efficiency:
Achieving even more bits pe Hz with advanced antenna techniques.

100x
Traffic Capacity:
Driving network hyper-densification with more small cells everywhere

100x
Network Efficiency:
Optimizing network energy consumption with more efficient processing

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Get Started with M2M Today

	DWM-311 4G LTE M2M VPN Modem	DWM-312 4G LTE M2M VPN Router	DWM-312W 4G LTE M2M VPN WiFi Router	DWM-313 4G LTE M2M VPN WiFi Router	DWM-315 4G LTE Cat 6 M2M VP Router	DWM-321 4G LTE In-Vehicle WiFi Hotspot	DWR-926 4G LTE Cat. 6 M2M VPN WiFi Router	DWR-3010 5G NR M2M VPN WiFi Gateway
SIM Slots	One	Two	Two	Two	Two	Four with Two (2) LTE built-in modems (HW: D1) | Two (HW : A1)	Two	Two
Connectivity	1 x Gigabit Ethernet LAN port	1 x 10/100Mbps Ethernet LAN port	1 x 10/100Mbps Ethernet LAN port	1 x 10/100Mbps Ethernet LAN port	1 x Gigabit Ethernet LAN port	2 x Gigabit Ethernet LAN port	3 x Gigabit LAN ports	3 x Gigabit LAN ports
			1 x 10/100Mpbs Ethernet WAN/LAN port (Configurable)	1 x 10/100Mbps Ethernet WAN/LAN port (Configurable)	1 x Gigabit Ethernet WAN/LAN port (Configurable)	1 x Gigabit Ethernet WAN/LAN ports (Configurable)	1 x Gigabit Ethernet WAN/LAN port (Configurable)	1 x Gigabit Ethernet WAN/LAN port (Configurable)
4G LTE Speed	LTE Cat.4 Downlink 150Mbps	LTE Cat.4 Downlink 150Mbps	LTE Cat.4 Downlink 150Mbps	LTE Cat.4 Downlink 150Mbps	LTE Cat. 6 Downlink 300 Mbps	LTE Cat. 4 Downlink 150 Mbps	LTE Cat. 6 Downlink 300 Mbps	5G Speeds upto 1Gbps*
Antennas	2 x detachable 3G/4G antennas	2 x detachable 3G/4G antennas	2 x detachable 3G/4G antennas;	2 x detachable 3G/4G antennas;	2 x detachable 3G/4G antennas	4 x 3G/4G detachable antennas (HW: D1)	2 x detachable 3G/4G antennas	4 x 5G NR/LTE detachable antennas
			1 x detachable Wi-Fi antenna	1 x detachable Wi-Fi antenna	1 x GPS SMA (antenna connector)	2 x 3G/4G detachable antennas (HW: A1)	2 x detachable WiFi antennas	2 x detachable WiFi antennas
GPS (Global Navigation Satellite System GNSS)	N.A.	N.A.	N.A.	N.A.	Yes	Yes	Yes	Yes
VPN Features	OpenVPN	L2TP/PPTP/ IPSEC/GRE VPN	L2TP/OpenVPN/ PPTP/IPSEC/GRE VPN	L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN	L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN	L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN	L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN	L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN

* DWM-312W is not managed by D-Link Edge Cloud Solution (DECS) 5G speed varies

D-Link

D-Link Edge Cloud Solution, D-ECS

Welcome to the solution guide for D-Link Edge Cloud Solution, the complete cloudmanaged cellular LTE/5G NR and wireless mesh networking solution for small-to-mediumsized businesses (SMB). D-ECS is designed to help SMBs make the transition from unmanaged consumer- grade equipment to a managed professional- grade solution as easy, effortless, and worry-free as possible by eliminating the learning curve and guaranteeing reliability to ensure every device stays connected.

Why D-ECS?

Seamless reliable connectivity is mission- critical to themodern business model. But with cellular LTE/5G NR devices and other M2M devices dispersed across the Internet and overwhelming security threats, SMB operations are at high risk with unmanaged networking devices. Professional-grade network management ensures minimal downtime and maximizes network agility for daily operations.

D-ECS removes the technical achieve such a network through....

- Do- it- yourself (DIY) installation and operation
- Remote management of your entire network
- Robust automation with minimal downtime

D-Link Edge Cloud Solution
System Architecture
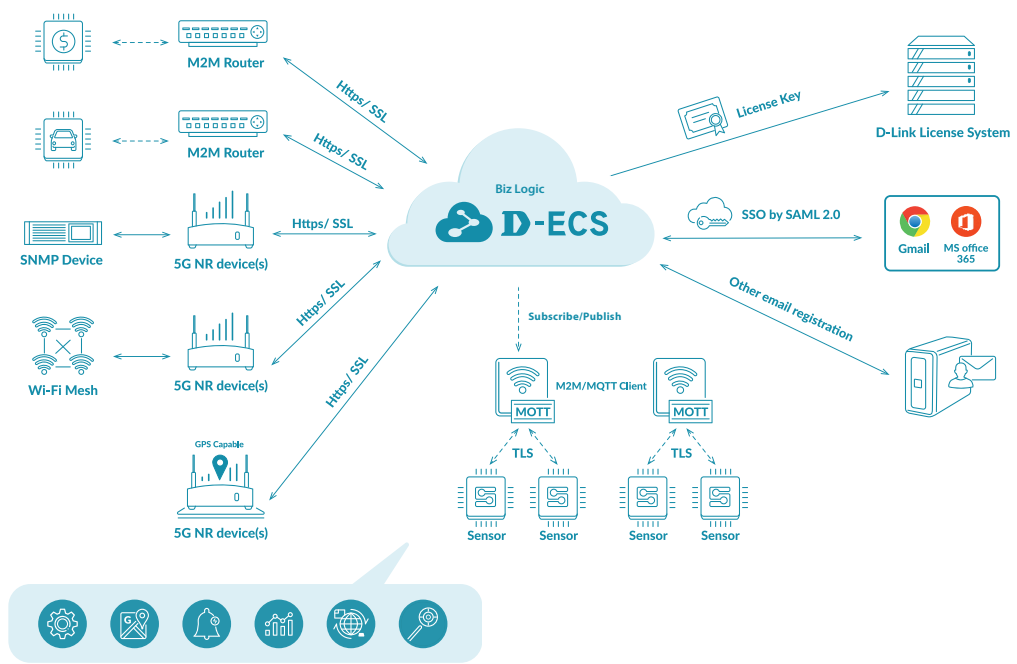
TR-069	TR-111	TR-098	TR-143	TR-181
MQTT	XMPP	MESH	SNMP	GPS INFORMATION

D-ECS

D-ECS is a complete managed Cellular and Wireless networking solution where network devices such as 4G- LTE, 5G NR, M2M, and Wireless Mesh are controlled through the D- ECS Management Platform, accessible via Web Portal or lite management app. Monitoring and management tasks can be carried out through the platform for any device, site, or network anywhere in the world, with multi- tenancy enabled, and device scalability unlimited.

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Who Needs D-ECS?

Service Providers

D-ECS delivers the technical capability, guaranteeing network reliability to ensure every device stays connected to enable applications such as the Internet of Things (IoT) and Cloud operations, without the need for new IT networking skills.

Logistics Remote Management

D-ECS helps managers to track, monitor and optimize the network to predict and mitigate problems before they occur.
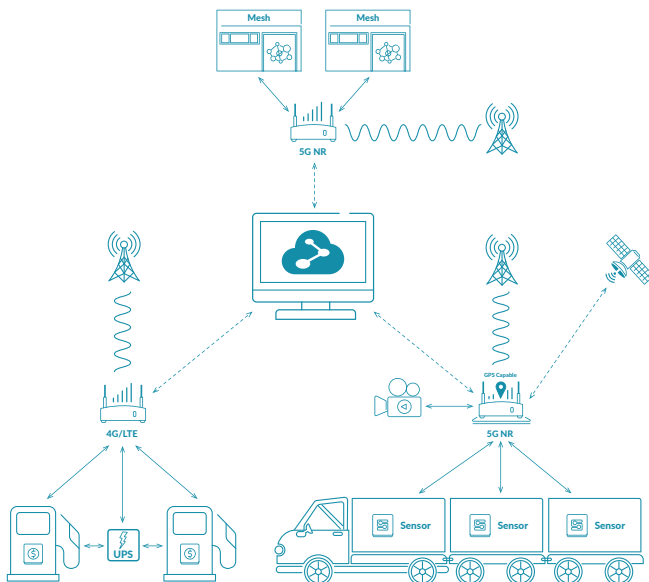
Business Clients

D-ECS enables simple remote management and troubleshooting across multiple sites, easy expansion of new sites, and scheduled analytics and reporting to help you get to know your customers.
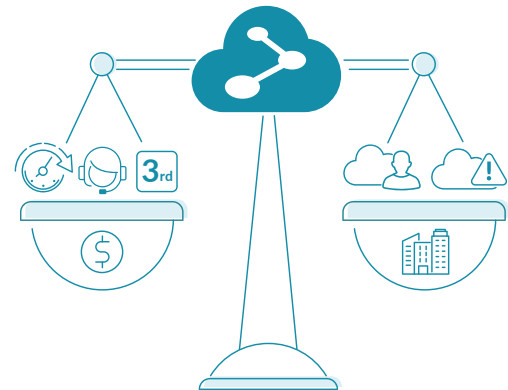
Balance for CapEx and OpEx

D-ECS offers robust Internet access capability, easy management of all network sites, fine-grained network monitoring and control to achieve the balance between CapEx and OpEx for different customers.

D-Link

What D-ECS Delivers

Cellular 4G-LTE/5G NR technology is redefining versatility for wireless business applications and making on-demand network deployments possible, prompting companies to explore the possibility of deploying cellular edge networks for existing business segments to streamline operations, increase output, and ultimately improve bottom lines.

Connecting up to a million devices per square kilometer, 4G-LTE/5G NR is ideal for enterprise networks wanting high-density and low-latency connections, and D-Link's Edge Cloud System (D-ECS) has all the tools for high network agility to ensure every device stays reliably connected.

End-to-End Solution

D-ECS is a complete cellular 4G-LTE/5G NR infrastructuresolution that provides end-to- end control over every residential router, wireless device, and remote site on your Cloud-managed network, including compatible devices with a variety of capabilities and price points. It is also a business solution comprised of a variety of functionalities to achieve the inter operability and shared services for SMBs, with analytics providing an opportunity to know your customers better.

- Minimal need for in-house IT skills
- Easy network management outsourcing
- Enhance business value and operational flexibility

Cloud Management

Managing a network from the Cloud brings tremendous advantages in terms of control and convenience. There are no technical limits to the numbers of sites and devices. No need for specialized management hardware or software. And with D-ECS Zero- Touch Deployment capabilities, there's no need to carry out repetitive configuration tasks onsite. Network administrators can access the platform and carry out their various tasks from literally anywhere with an online connection, with no need for complex dedicated software.

- Zero-Touch Deployment
- Unlimited Scalability
- Quality of service by multi-sites and group tasks management

D-ECS

D-ECS is a complete managed Cellular and Wireless networking solution where network devices such as 4G- LTE, 5G NR, M2M, and Wireless Mesh are controlled through the D- ECS Management Platform, accessible via Web Portal or lite management app. Monitoring and management tasks can be carried out through the platform for any device, site, or network anywhere in the world, with multi- tenancy enabled, and device scalability unlimited.

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Statistics — Hourly Network Activity

Statistics — Hourly Network Activity

Intuitive Dashboard Interface
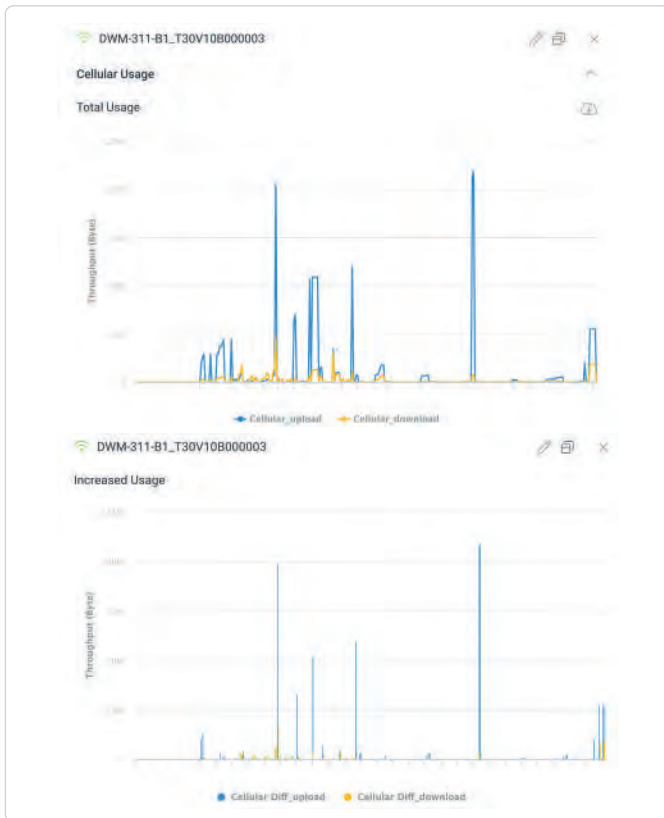
Statistics — Hourly Network Activity
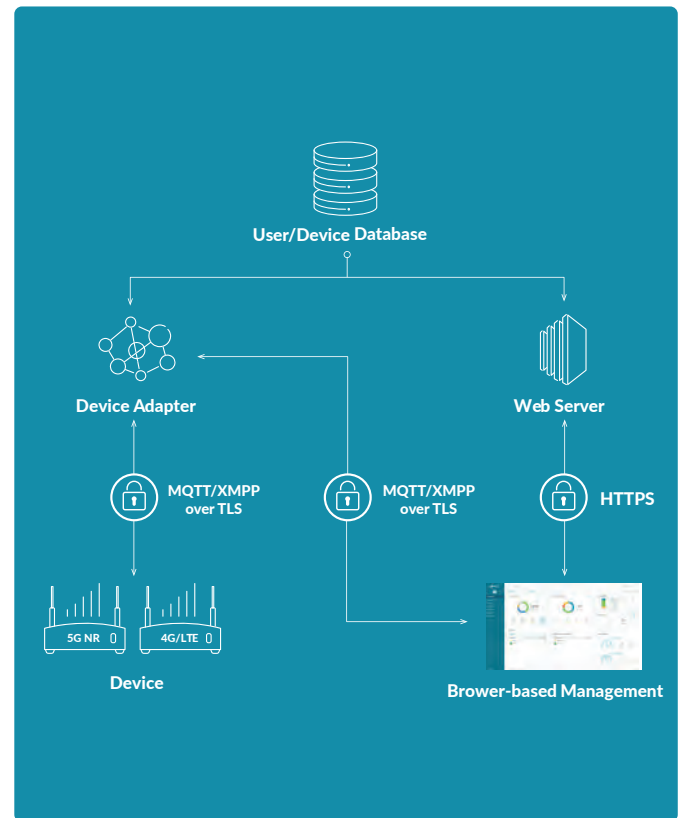
End-to-End Encryption

In-Depth Analytics & Automated Reporting

D-ECS enables an extensive understanding of your cellular network and its users scheduled timely traffic analytics and status reports, which can be automated. Insights derived from this traffic data can be used to create business value. Traffic can be viewed across the entire network, or narrowed down to a single device.

• Easy determination of trends & patterns, which can be used to guide marketing and purchasing decisions
• Spot irregularities before they become problems, and detect possible cyber threats.
• Easier troubleshooting

Ease-of-Use

D-ECS has an intuitive user interface that's designed to minimize the time it takes to carry out tasks, while enabling an at-a-glance understanding of what's happening on your network. Parallel deployment for configuration, multi-tenancy, batch new firmware upgrade for certain devices and userdefined task schedules make network management easier for administrators.

• At-a-glance understanding of network status
• Less time spent on repetitive tasks
• Automated reporting
• Enhanced user experience

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D-ECS for Admins

D-ECS adopts the service-oriented architecture (SOA) for multitenancy.This will enhance loose coupling everywhere in the platform itself, from supporting interoperability, increasing the quality of service, and customers diversity. There are five key tenets that overarch the board concept of D-ECS.

Key Features

Zero Touch Provisioning for rapid development	Manage devices using TR-181/TR098 commands remotely	Role-based administration and auditable change logs	Subscription-based license options	Geo-location using Google Maps
User-defined task schedules	Advanced traffic report and data analysis	User-defined network monitoring and alert messages	NAT Enhancement for Real-time communication	Support M2M and IoT real-time communication
SSO by Google/MS-0365	Easy management via Tags	RESTful API for 3rd Integration		
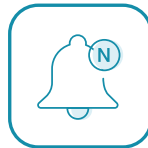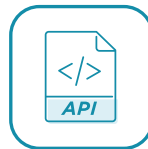
D-Link
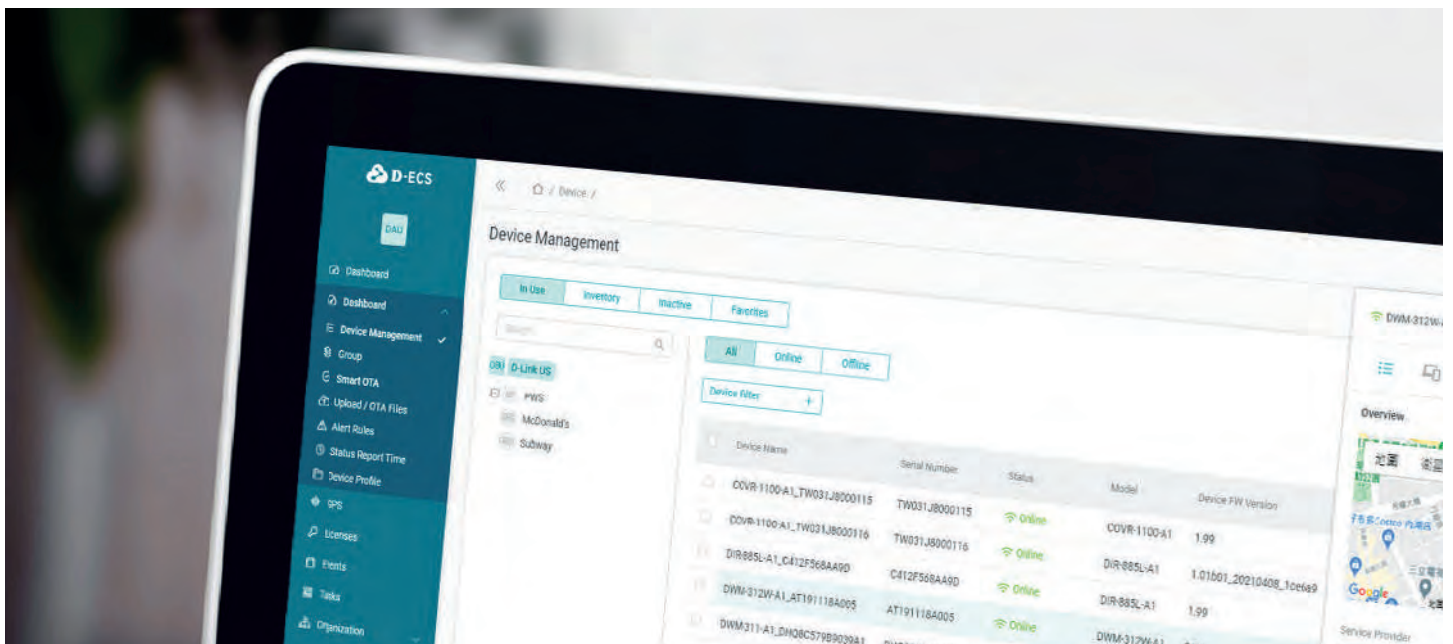
Platform

D-ECS is designed for cellular 4G/LTE and 5G NR technology as well as the wireless LAN and cellular M2M IOT environment that all require the different control methodologies to integrate this enormous and heterogeneous Internet world.

Best Practice

D-ECS combines practices of mashup, SaaS and cloud computing, micro-services to emphasize continuous deployment and agile practices. In other words, D-ECS enables development, lightweight container deployment, DevOps with holistic service monitoring.

Services

D-ECS aims to allow users to combine large chunks of functinality from the different protocols to form applications which are presenting a simple interface to the requester that abstracts away the underlying complexity of protocols as the black box. So users can access these independent services without any knowledge of their internal implementation.

Users

D-ECS allows for multi-tenancy authentications while enabling the specific access controls fo fine-grained permissions. This will give admins the option to arrange team members for value-added service. Also, service providers can empower complicated device management to business clients by business demand if business clients will work as the subcontractors to serve other end customers.

Process

In order to fulfill the diversity of business user scenarios for service consumers, service registry and service providers; D- ECS is working for lots of different business logic processes, classifying them, extracting the big requirements to the subtle tasks, standardizing and executing with layers of services for business processes which are ranging from activating, deployment, configuring, monitoring, altering and reporting.

Intuitive Dashboard Interface

D-ECS
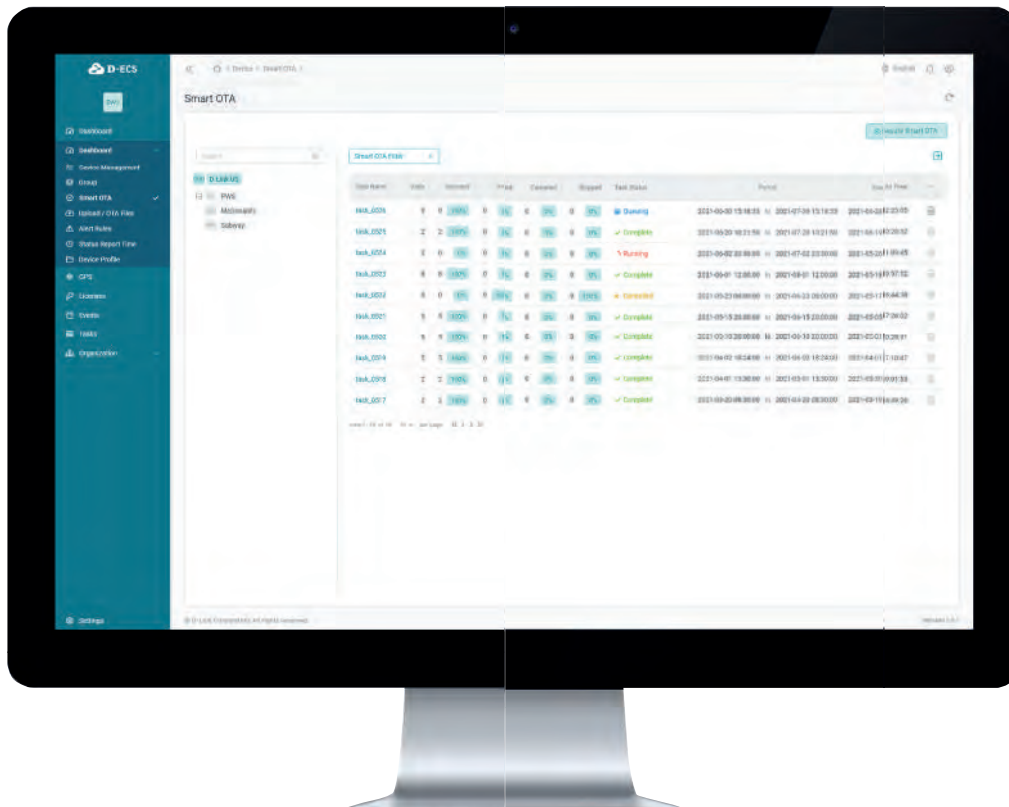
Compatible Devices*

46 LTE Modem Router

Model	DWM-311	DWM-312W	DWM-312	DWM-313	DWM-321
Product Image					
Environment	Indoor	Indoor	Indoor	Indoor	Indoor
Dimension	77.4 x 68.5 x 26 mm	134 x 76 x 32 mm	93 x 70 x 23.6 mm	93 x 70 x 23.6 mm	160 x 125 x 47 mm
Hardware Version	B1	A1	A2	A1	A1(1*LTE modem); D1(2*LTE modem)
Technical Spec	4G L TE Modem • 4G/3G • 1 GE LAN • VPN: OpenVPN • Support Device management	4G L TE Modem Router • 4G/3G • 1 FE LAN • VPN: IPSec/ PPTP/L2TP/GRE • +Support Device management	4G L TE M2M Router • 4G/3G • 1 GE LAN • VPN: OpenVPN • Support Device management	4G L TE M2M Router • 4G/3G • 1 GE LAN • VPN: OpenVPN • Support Device management	4G L TE In-V ehicle Hotspot • 4G/3G • 1 GE W AN/ 2 GE LAN • Wi-Fi AC1200 • 2* DI/DO, 1*RS-232 • VPN: IPSec, OpenVPN, PPTP , L2TP , GRE • + Support Device • management

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Compatible Devices*

5G LTE Modem Router

Model	DWR-978	DWM-3010	DWP-1010
Product Image			
Environment	Indoor	Indoor	Outdoor
Dimension	234.5 x 245 x 55.2 mm	62 x 125 x 160 mm	210.4 x 144.8 x 105.4 mm
Hardware Version	A1	A1	A1
Technical Spec	5G/L TE Indoor CPE • Qualcomm SDX55 • 5G LT E • Sub-6G • 802.11n 4x4 + 4x4ac • 4 GE LAN	5G NR M2M Gateway • 5G NR/4G/3G • 1 GE W AN/ 2 GE LAN • Wi-Fi AC1200 • 2* DI/DO, 1*RS-232, • 1*RS-485 • VPN: IPSec, OpenVPN, • PPTP , L2TP , GRE • Support Device management	5G/L TE ODU • Qualcomm SDX55 • IP67 • Mobile APP for site survey • Multi-giga PoE

*Please contact your local D-Link office for availability.

D-Link

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FOR BUSINESS

2023

nuclias
DBG-2000

D-Link DSR-500

D-Link DSR-1000
USB1 USB2

WIRELESS AC SERVICE ROUTER

D-Link

TOTAL SECURITY SOLUTION

For Enterprise Network

Your Link to Business Success

Security

In today's inter-connected, web-based business environment, a company's network security is key to their stability, productivity and success.

Increasingly businesses with mobile or remote workers, or that who employ social media as a tool have a greater likelihood of experiencing crippling data network security breaches. D-Link's Network Security Solutions will help you maintain a healthy network free from virus attacks, unauthorized intrusion and harmful content.

With a full array of components, including Unified Threat Management appliances, firewalls and network switches, D-Link security solutions work together to prevent network disruption from internal and external threats and are easy to install, manage and update

NETWORK THREAT PROTECTION

- SECURITY MONITORING AND REPORTING
- ENDPOINT PROTECTION
- EMAIL PROTECTION
- INTERNET CONTENT FILTERING
- FIREWALL MONITORING AND MANAGEMENT
- SECURE VPN CONNECTIVITY

D-Link 360 Degree Network Security
- Flexible Deployment Security
- Secure network with VPN
- Multi-WAN failover & Load balancing
- Complete Security for SMB network
- Deep packet inspection
- Application Control
- Web Content Filtering
- Antivirus

Secure VPN Network Implementation

Main Office — Branch Office

IPSec Tunnel
PPTP Tunnel
L2TP Tunnel
OpenVPN Tunnel

SSL Tunnel
OpenVPN Tunnel

Mobile Users
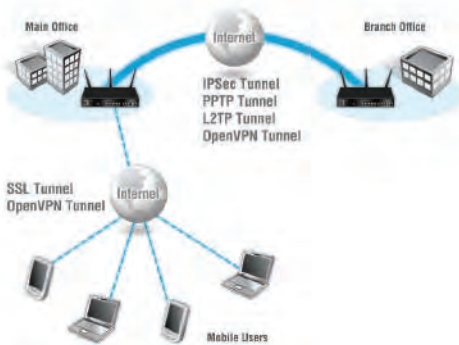
Dual WAN for Redundant Internet

Telecom 3G/4G

Laptop
Wi-Fi 802.11ac/a/b/g/n

Ethernet

Server Farm

IEEE 802.1x RADIUS authentication server

Internet Service Provider(A)
Internet Service Provider(B)

PC
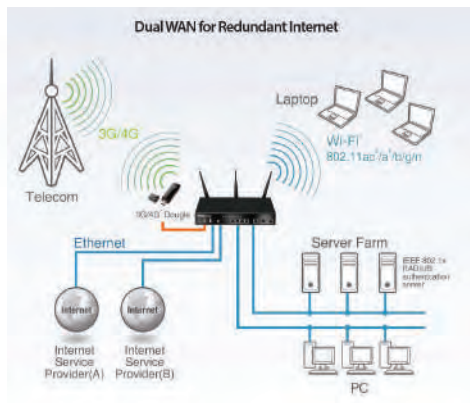
Available Solution

External Threat Protection
- DSR Unified Service Router
- DFL Firewall
- DBG Cloud Managed VPN Business Gateway

InternalThreat Protection
- Instant Check & Instant Balance By L7 Network

Application Control & Web Filtering

Users

DSR Series

D-Link

Unified Service Routers

DSR Series

Every day, businesses face potential security breaches from every direction to their network: virus attacks, file sharing, messaging abuse, spyware and many others. Remote workers can unintentionally provide hostile threats with back-door access to your business. With such a diversity of threat, gone are the days when a simple, protective firewall was enough. And managing a host of different remedies is inefficient and difficult. D-Link's Unified Services Routers offer secure, high-performance networking solutions to address the growing data-security needs of businesses. These routers are packed with advanced security and management features that are easily integrated into your existing infrastructure and which provide remote workers with secure access through the powerful VPN engine. D-Link's Unified Services Routers are, essentially, all-in-one gateway devices providing outstanding performance and rich functionalities, including IEE 802.11ac, secure wireless access, 3G/4G WAN redundancy, IPv6 and comprehensive VPN features. The DSR Series provide a signature package to enhance the security of your network by identifying intrusion patterns and blocking external threats.

Key Series Features

- Static/dynamic IP WAN type
- Point-to-Point over Ethernet (PPoE)
- SSL/IPSec/PPTP/L2TP VPN/ OpenVPN
- VPN hub and spoke
- IPSec/PPTP/L2TP VPN pass-through
- 3G/4G WAN redundancy via optional 3G USB modem
- Network Address Translation (NAT) transparent mode
- WAN traffic failover
- Outbound load balancing
- Remote management (Web, SNMP, SSH, Telnet)
- Internet Group Management Protocol (IGMP) proxy/snooping
- Stateful Packet Inspection (SPI)
- L2 to L7 access control
- IP/MAC binding
- Virtual LAN (VLAN)
- Intrusion Prevention System (IPS)
- Wireless Security (WEP, WPA, WPA2, WPS)
- Multiple SSIDs
- SSID-to-VLAN mapping
- IPv6

Series includes the below models

DSR-250 V2
- 10/100/1000BASE-T (WAN) port x 2 (1 Combo WAN/LAN)
- 10/100/1000BASE-T (LAN) ports x 3
- LAN
- USB 3.0 port x 1 for USB storage or 3G/4G dongle

DSR-500
- 10/100/1000BASE-T (WAN) port x 2
- 10/100/1000BASE-T (LAN) ports x 4
- USB 2.0 port x 1 for USB storage or 3G/4G dongle

DSR-500AC
- 10/100/1000BASE-T (WAN) port x 2
- 10/100/1000BASE-T (LAN) ports x 4
- IEEE 802.11b/g/n/ac wireless LAN
- USB 2.0 port x 1 for USB storage or 3G/4G dongle
- 2dBi antennas x 2

DSR-1000
- 10/100/1000BASE-T (WAN) port x 2
- 10/100/1000BASE-T (LAN) ports x 4
- USB 2.0 port x 2 for USB storage or 3G/4G dongle

DSR-1000AC
- 10/100/1000BASE-T (WAN) port x 2
- 10/100/1000BASE-T (LAN) ports x 4
- IEEE 802.11b/g/n/ac wireless LAN
- USB 2.0 port x 2 for USB storage or 3G/4G dongle
- 2dBi antennas x 3

D-Link

MODEL		DSR-250 V2	DSR-500	DSR-500AC	DSR-1000	DSR-1000AC
Interfaces	Gigabit Ports (WAN)	1	2	2	2	2
	Gigabit Ports (LAN)	3+1 (LAN/WAN)	4	4	4	4
	USB	1 x USB 3.0	1 x USB 2.0	1 x USB 2.0	2 x USB 2.0	2 x USB 2.0
	Console	1 x RJ45				
Performance	Firewall Throughput	900 Mbps	950 Mbps	950 Mbps	950 Mbps	950 Mbps
	VPN Throughput	200 Mbps	200 Mbps	200 Mbps	250 Mbps	250 Mbps
	Concurrent Sessions	50,000	50,000	50,000	60,000	100,000
	New Sessions (Per Second)	2,000	500	500	1,000	1000
	Firewall Policies	300	400	400	600	600
Internet Connection Type		DHCP, Static IP, PPPoE, L2TP, PPTP				
Firewall System	Static Route	•				
	Dynamic Route		RIPv1, RIP v2, OSPF	RIPv1, RIP v2, OSPF	RIPv1, RIP v2, OSPF	RIPv1, RIP v2, OSPF
	Dynamic DNS	•				
	Inter-VLAN Route	•				
	NAT, PAT	•				
	Web Content Filtering	Static URL, Keywords				
	Intrusion Prevention System (IPS)	Signature Package Included in Firmware				
Networking	DHCP Server/Client	•				
	DHCP Relay	•				
	IEEE802.1q VLAN	•				
	VLAN (Port-Based)	•				
	IP Multicast	IGMP Proxy				
	IPv6	•				
	Route Failover		•	•	•	•
	Outbound Load Balancing		•	•	•	•
	3G Redundancy	•				
Wireless*	Multiple Service Set Identifier (SSID)	•		•		•
	Service Set Identifier (SSID) to VLAN Mapping	•		•		•
	Standards			802.11a/b/g/n/ac		802.11a/b/g/n/ac
	Wireless Security			WEP/WPS/WPA-PSK/WPA-EAP/ WPA2-PSK/WPA2-EAP		WEP/WPS/WPA-PSK/WPA-EAP/ WPA2-PSK/WPA2-EAP
VPN	VPN Tunnels	75	85	85	135	135
	IPSec Tunnels	50	35	35	70	70
	SSL VPN Tunnels	20	10	10	20	20
	PPTP/L2TP Tunnels	30	25	25	25	25
	GRE	20	15	15	20	20
	Encryption Methods	DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL				
	SSL Encryption Methods	RC4-128, 3DES, AES				
	IPSec/PPTP/L2TP Server	•				
	IPSec NAT Traversal	•				
	Dead Peer Detection	•				
	IP Encapsulating Security Payload (ESP)	•				
	IP Authentication Header (AH)	•				
	VPN Tunnel Keep Alive	•				
	Hub and Spoke	•				
Bandwidth Management	Maximum Bandwidth Control	•				
	Priority Bandwidth Control	Port-Based QoS, 3 Classes				
System Management	Web-Based User Interface	HTTP, HTTPS				
	Command Line	•				
	SNMP	v 1 / v2c / v3				
Physical and Envirnmental	Power Supply	External	Internal	Internal	Internal	Internal
	Maximum Power Consumption	12.6 W	15.6 W	16.8 W	17.2 W	19.3 W
	Dimensions (L x W x H)	190 x 120 x 38 mm	180 x 280 x 44 mm	180 x 280 x 44 mm	180 x 280 x 44 mm	180 x 280 x 44 mm
	Operating Temperature	0°C to 40°C				
	Operating Humidity	5% to 95% RH Non-Condensing				

* Applicable to Wireless Model only.

D-Link

DFL-870M

UTM Firewall

The D-Link DFL-870M UTM Firewall is a next generation Unified Threat Management (UTM) firewall which provides a powerful security solution to protect business networks from a wide range of threats. The DFL-870M offers a comprehensive defense against virus attacks, unauthorized intrusions, and flooding of harmful traffic, for successfully managing, monitoring, and maintaining a healthy network.

The DFL-870M provides a complete set of advanced security features to secure, manage, and monitor your network. These features include remote management, bandwidth control policies, URL blacklists and whitelists, access policies, and SNMP support. The DFL-870M furthermore supports email alerts, system logging, consistency checking, and real-time statistics gathering that keeps you up-to-date on the status of the network. Additionally, multiple WAN ports support traffic load balancing and failover, thus guaranteeing Internet availability and bandwidth. The D-Link DFL-870M integrates an intrusion detection and prevention system, gateway antivirus, content filtering, and application control for superior Layer 7 content inspection. An acceleration engine increases throughput, while the real-time update service keeps the IDPS information, anti-virus signature, URL and application databases current. Combined, these enhancements help to protect office networks from application exploits, network worms, malicious code attacks, and provide everything a business needs to safely manage employee Internet access. D-Link offers optional, cost-efficient, per-device Firewall UTM Service subscriptions that ensure that each of the firewall's service databases remain up-to-date.

Key Series Features

INTEGRATED FIREWALL

- Multiple WAN ports for WAN failover and outbound load balancing
- Link aggregation on LAN ports
- IEEE 802.1Q VLAN
- Granular bandwidth management

UNIFIED THREAT MANAGEMENT (UTM)

- Intrusion Detection & Prevention System (IDPS)
- Anti-virus protection
- Web Content Filtering (WCF) in HTTP/HTTPS
- Application control
- Email security

VIRTUAL PRIVATE NETWORK (VPN)

- Supports IPSec, SSL, GRE protocols
- Redundant VPN gateway
- Hub-and-spoke VPN support

ADVANCED FUNCTIONS

- User authentication through:
- Captive portal
- User Identity Awareness
- Active/passive High Availability (HA)
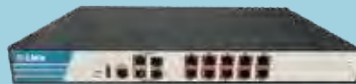
MODEL		DFL-870
Interfaces	Ports	10 x GE + 2 combo GE/SFP
	USB Port	1 x USB 2.0 Ports
	Console Port	1 RT45 Console Port
System Performance	Firewall Throughput	4 Gbps
	VPN Throughput	1 Gbps
	IPS Throughput	2 Gbps
	AV Throughput	2 Gbpsv
	Concurrent Sessions	1,000,000
	New Sessions per second	40,000
	Policies	38,400
Firewall System	Transparent Mode	✓
	NAT, PAT	✓
	OSPF Dynamic Routing Protocol	✓
	NAT Traversal	✓
	Time Scheduled Policies	✓
	Application Layer Gateway	✓
	ICSA Certified	✓
Networking	DHCP Server/Client	✓
	DHCP Relay	✓
	Policy-Based Routing	✓
	802.1q VLAN	✓
	IGMP v3	✓

D-Link

MODEL		DFL-870M
Traffic Load Balancing	Outbound Traffic Load Balancing	✓
	Server Load Balancing	✓
Algorithms for Outbound Load Balancing	Round Robin	✓
	Destination-Based	✓
	Spillover	✓
Bandwidth Management	Policy-Based Traffic Shaping	✓
	Guaranteed Bandwidth	✓
	Maximum Bandwidth Protocol	✓
	Priority Bandwidth	✓
	Dynamic Bandwidth Balancing	✓
	Bandwidth Management in VPN Tunnel	✓
High Availability	WAN Failover	✓
	Traffic Re-Direct at Failover	✓
	Active-Passive Mode	✓
	Device Failure Detection	✓
	Link Failure Detection	✓
	FW/VPN Session SYN	✓
Intrusion Detection & Prevention System (IDP/IPS)	Automatic Pattern Update	✓
	DOS, DDOS Protection	✓
	Attack Alarm via Email	✓
	Advanced IDP/IPS	✓
	IP Blacklist	✓
Content Filtering	HTTP	✓
	HTTPS	✓
	Script Types	✓
	Safe Search Enforcement	✓
Antivirus	Real-time AV Scanning	✓
	Stream-based Scanning	✓
	Scans, VPN Tunnels	✓
	ZIP/GZIP Compression File	✓
	Signature Licenser	✓
	Automatic Pattern Update	✓
Email Security	IMAP, SMTP and POP3 Protocols Support	✓
	Sender/Recipient Email Address Black List/ Exempt	✓
	List Filtering	✓
	MIME Header Check	✓
	File Type Whitelisting/Blacklisting	✓
	File Extension	✓
	Anti Spam	✓
IM/P2P Blocking	12/ 24/ 36 months availbale Service Subscription	✓
	Application B/W Management, Policy Control & Prioritization	✓
	Supports 1000+ recognized application	✓
	Schedule & Rule-Based Control	✓

DFL-870M-AV-12-LIC	Antivirus signature—12 Months
DFL-870M-AV-24-LIC	Antivirus signature—24 Months
DFL-870M-AV-36-LIC	Antivirus signature—36 Months
DFL-870M-IPS-12-LIC	IPS Signature—12 Months
DFL-870M-IPS-24-LIC	IPS Signature—24 Months
DFL-870M-IPS-36-LIC	IPS Signature—36 Months
DFL-870M-AC-12-LIC	Application Control Signature—12 Months
DFL-870M-AC-24-LIC	Application Control Signature—24 Months
DFL-870M-AC-36-LIC	Application Control Signature—36 Months
DFL-870M-WCF-12-LIC	WEB CONTENT FILTERING SIGNATURE—12 Months
DFL-870M-WCF-24-LIC	WEB CONTENT FILTERING SIGNATURE—24 Months
DFL-870M-WCF-36-LIC	WEB CONTENT FILTERING SIGNATURE—36 Months
DFL-870M-ALL-12-LIC	All-in-one Signature (AV+IPS+AC+WCF)—12 Months
DFL-870M-ALL-24-LIC	All-in-one Signature (AV+IPS+AC+WCF)—24 Months
DFL-870M-ALL-36-LIC	All-in-one Signature (AV+IPS+AC+WCF)—36 Months

Deployment Scenario

D-Link Confidential

D-Link
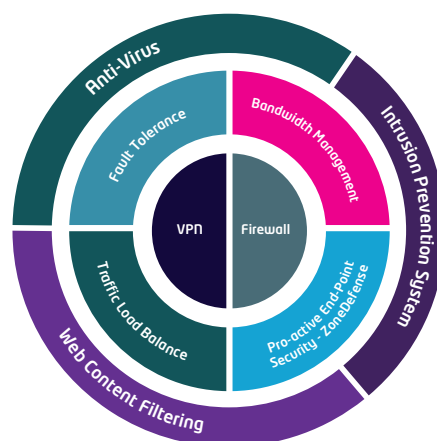
Cloud-Managed Multi-Layered Protection
That Helps Keep Internet-Borne Threats at Bay

Cloud Security Gateway | DBG-2000

< nuclias
cloud

Powerful features that keep users and the network safe

< nuclias
cloud

NUCLIAS CLOUD SD-WAN SECURITY GATEWAY
DBG-2000

- Powerful and enduring multi-aspect protection for SMB cloud networks that keeps the network and users securer on all fronts.
- Centralized cloud-based management, with intuitive web and app-based interface.
- Formidable privacy with easy-to-establish point-to-point VPN options.
- Get the best network utilization thanks to Smart Bandwidth Management.
- Equipped with IPS, the network is actively on guard to protect itself.
- Dynamic Content Filtering facilitates categorization and control of accessible sites
- Network firewall provides a formidable first line of defense.
- Bulk up security further with Application Control, controlling which application can utilize the network.
- With Zero Touch Deployment, configure directly from the cloud, no on-site setup necessary.

Application Topology

< nuclias

Browser and Tablet app management

Headquarters

DBG-2000
Nuclias Cloud Managed
SD-WAN Gateway

Branch Office

Branch Office

Remote Worker   Home User   Remote Worker
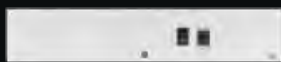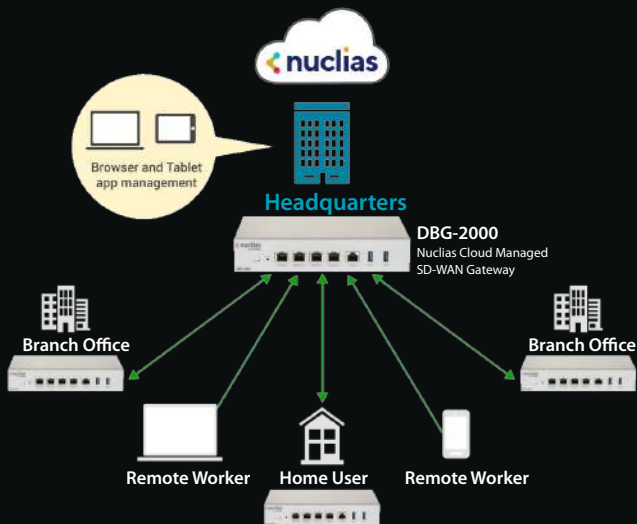
Why You Want It

Zero Touch Provisioning

Automatically configured, no on-site setup necessaryanalytics

Cloud-Based Management

Manage on-site or remotely, wherever, whenever

Intrusion Prevention System

Inspect vulnerabilities and protect intrusions from unknown backdoors

Dynamic Web Content Filtering

The Web Content Filtering feature keeps the network safe against malicious websites and provide browsing behaviors analytics

Application Control

Streamline configuration of security settings and propagate to all the connected SD-WAN gatewaysbrowsing behaviors analytics

Auto VPN

Easily build VPN tunnels between Nuclias Cloud SD-WAN Gatewaysgatewaysbrowsing behaviors analyticsanalytics

D-Link

Quick VPN Enables the Modern Decentralized Workforce Nuclias Connect

As your workforce moves from the office desk to the home one, Nuclias enables easy P2P VPN tunneling for better business privacy and remote working. Rapidly establish your VPN via the Nuclias dashboard for more secure connections.
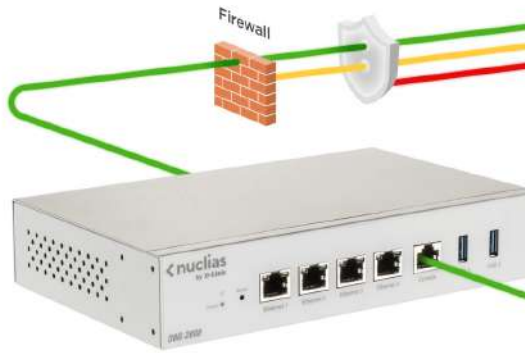
A Stalwart of Network Security

The DBG-2000 is adept at keeping business networks more secure. The powerful network firewall filters traffic, blocking anything that shouldn't be there.

Meanwhile, the Intrusion Prevention System (IPS) actively shields the network from modern day threats such as DDoS attacks, brute force attacks or vulnerability exploits, as well as raising the alarm alerting administrators to irregularities.

Policy Management Complexity, Drastically Simplified

Poloies, Policies, Policies. Nuclias empowers you with the toole you need, such as Content Filters, Firewalls, or Application Control. Define you policies as necessary and then roll them out across the entire network for greater network-wide conistency.
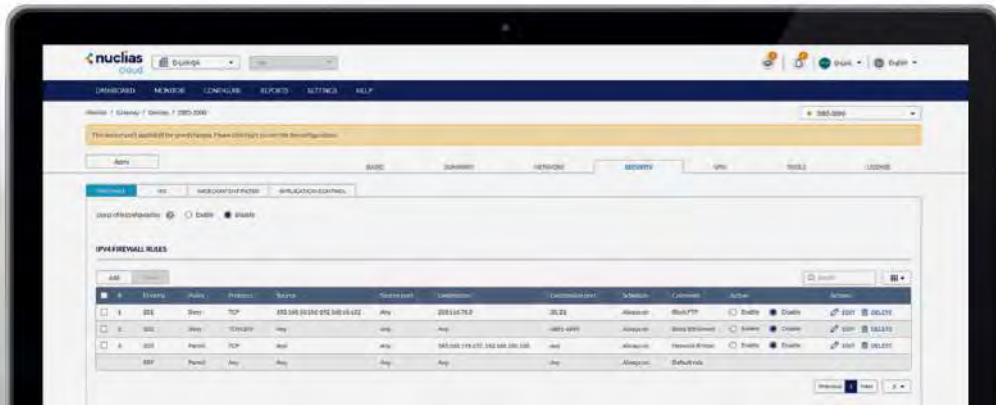
Complete Cloud Managed Solution

InstantCheck®
Secure · Monitor · Protect
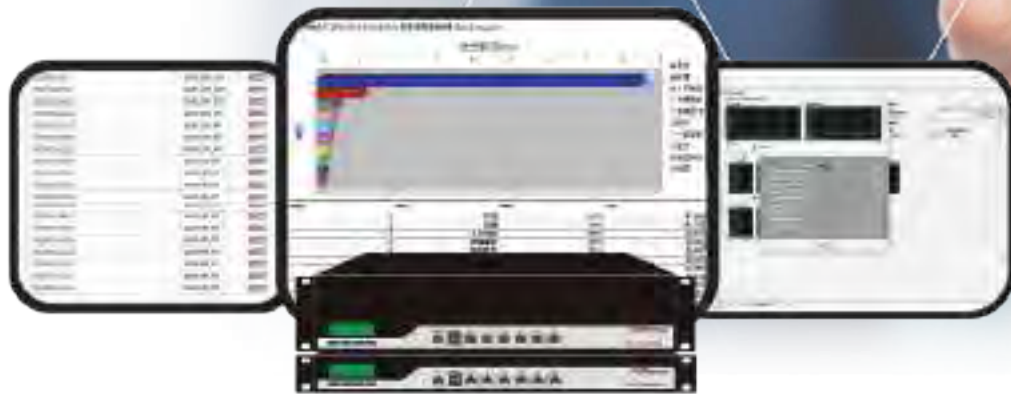
InstantCheck®
by L7 Network- Secure Web Gateway

Existing web security solutions focus on filtering threats within http channels. However, more and more web sites redirect users to https-encrypted tunnels for privacy reasons so existing security solutions are bypassed. Such applications include Google Search / Map / Mail / Drive / Doc / Plus / Chat / Youtube, Twitter, Facebook, Facebook Chat, Dropbox, Yahoo Mail, Microsoft Outlook (Hotmail) / OneDrive / Skype / Line.As cloud services prevail, researchers had indicated that more than 90% of traffic will be encrypted in https by 2020. Auditing and filtering web contents becomes an uneasy job but everyone pretends to be unaware of this issue because no solution is available. It's time to face the truth.

DLP (Data Lost Prevention)

Remote User — L7 Instant Check — Internal Corporate Network
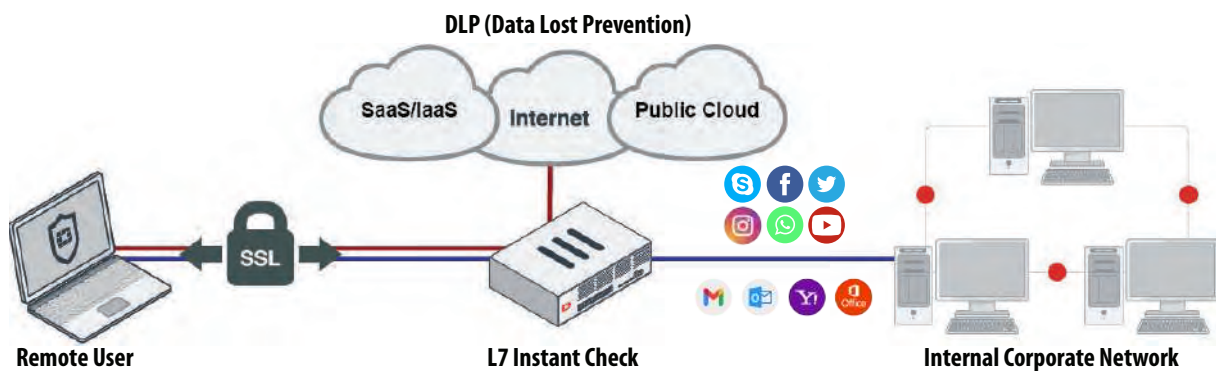
- **Visibility: not just reports, but in real-time**
    - Real-time drill down into https sessions: IP/URL/Web category
    - Track Line App into: Login/ File-up / file-dw / video / voice / store /...

- **Security: not just blacklists, but threat centers**
    - Detect botnets / ransomwares with 8 global threat centers
    - Top reports of malware / C&C / compromised hosts / cryptojack / ....

- **QoS : not just limites, but guarantees**
    - Patented PotACK TCP control
    - Schedule-based policy
    - Quota control

- **Security:**
    - Block C&C/botnets
    - Stop IP Spoofing attacks
    - Limit access to unwanted web categoriesl

- **Recorder: not just emails, but also WebMails**
    - Record popular WebMail / WebHD / Social / Messenger cloud contents
    - Match keywords with alerts to auditors for further investigations
    - Track and filter employees' cloud behaviors

- **Regulatory compliance**
    - Lawful compliance to GDPR, Sarbanes-Oxley, ISO27000, PCI-DSS, HIPAA,...
    - Improve corporate governance with strict content rules

DLP (Data Lost Prevention)

- **Web DLP: WebMails**
    - Transparently installed between employees and firewall
    - Decrypt HTTPS to scan for any personal identity information (PII)
    - Built-in PII fields: name/ addr / tel / visa / birth date / gender / ....

- **USB DLP**
    - Lock down Mass Storage Device to prevent information leakage
    - Allow USB drives only issued by your corporation

- **Email DLP**
    - Transparent installed between your mail server & firewall.
    - Scan outgoing SMTP mails for PII / secrete patterns

InstantCheck® Choice: 4 Package for Your Business

	Basic	Silver	Gold	Max
NPM: (Network Performance Monitoring)	●	●	●	●
QoS: (Quality of Service)		●	●	●
SWG: Proxy/ Secure Web Gateway			●	●
DLP: Data Loss Protection				●
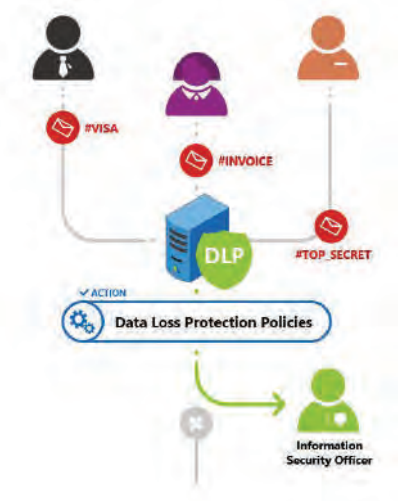
General

InstantCheck Models		IC50	IC100	IC500	IC1000	IC3000	IC5000	IC8000	IC10000
Dimension		19' 1U	19' 1U	19' 1U	19'2U	19'2U	19'2U	19'2U	19'2U
		2GB	2GB	4GB	4GB	4GB	8GB	8GB	8GB
Interface	1G UTP	GEx4	GEx4	GEx4	GEx4	GEx4	GEx4	GEx6	GEx6
	1G Fiber	-	-	-	SFPx2	SFPx2	SFPx2	max:8	max:8
	10G FiberV	-	-	-	Optional	Optional	Optional	max:4	max:4
Management		GEx1	GEx1	GEx1	GEx1	GEx1	GEx1	GEx1	GEx1
Hardware Bypass		GEx4	GEx4	GEx4	GEx4	GEx4	GEx4	GEx6	GEx6
Optional Fiber Bypass		-	-	-	-	-	-	Silicom	Silicom
SSD Capacity (Expandible)		480GB	480GB	480GB	480GB	480GB	480GB	480GB	480GB

Performance

	IC50	IC100	IC500	IC1000	IC3000	IC5000	IC8000	IC10000
Max Concurrent IPs	70	250	500	1000	3000	5000	8000	20000
Max Session Rate	1000/s	1850/s	3000/s	5150/s	10K/s	20K/s	30K/s	40K/s
Max Concurrent Sessions	20K	200K	300K	1M	2M	4M	8M	12M
Lan-to-Lan Throughput	80Mbps	200Mbps	300Mbps	600Mbps	1.2Gbps	2Gbps	4Gbps	6Gbps
Lan-to-Wan Throughput	15Mbps	30Mbps	75Mbps	200Mbps	500Mbps	1Gbps	2Gbps	4Gbps

Specifications

Deployment	Support IPv4/IPv6 sniffer/inline/proxy mode deployment with L7 applicationcontrol and https decryption
User Identification	Single-sign-on AD integration by auto NTLM, proxy authentication, web login, end-point agent, AD log events
Real time Monitoring	ICAP redirection of decrypted https traffic for anti-virus, malware sandboxing, data leakage prevention (DLP)

Cloud Content Forensics

Web	Reconstructing and filtering of https get / post requests, including filename, file content, uploaded files, URLs
WebMail	Reconstructing and filtering of webmail Senders / Receivers / Attachments, including Gmail / Outlook / Yahoo Mail etc
WebHD	Reconstructing and filtering of webhd upload / download files, including Dropbox / Google Drive / OneDrive etc
WebSocial	Reconstructing and filtering of social website behaviors (posts, photo sharing, status, ….), including Facebook / Twitter etc
WebIM	Reconstructing and filtering of web messengers (messages / files), including Facebook Chat / Google Hangout / WeChat etc

Legacy Content Forensics

Telnet/FTP	Reconstruction of Telnet screen, FTP behaviours (upload / download file names and file contents
Email	Reconstruction of SMTP / POP3 / IMAP, sent / received emails with attachment file contents

End-Point Forensics (Optional)

Message Recorder	Reconstruction of messengers (messages / files), including PC-version Skype / Line / Wechat etc
Chat Screen Recorder	MP4 video recording of Line / Line@chrome / skype / skype@Winstore / WeChat / Aliwangwang / QQ / DingDing etc

http(s) Safe Browsing

URL Database	Support 70+ URL categories, including porn / ads / gambling / stocks / news / games / comics / chatrooms / jokes / hackers / phishing etc
Google Safe Browsing	Integrate blacklists from Google Safe Browsing to stop visiting malicious / phishing / botnet C&C / compromised website links
Anti-Virus Database	Integrate Virus Total-listed anti-virus engine AegisLab
Ransomware Protection	Integrate ransomware domain prediction engine from Malware Patrol to stop downloading keys from botnet C&C sites
Botnet C&C Blacklists	Integrate IP / domain clacklists from FireHOL, Cisco Talos, NICST etc with periodical auto updates
Customized Block Page	Support HTML customization of blocking page which contains user name, source IP, reason to block
QoS by URL Category	QoS policy rules are conditioned on internal / external IP / network / range, built-in or self-defined URL categories

BYOD

Mobile Detection	Support detection of PC / Android / iOS / Windows Phone / BlackBerry devices for policy rules
USB Control	Support blocking of Windows USB mass storage devices but remaining funtionality of other USB accessories
Mobile SSO	Support over-quota limiting policy to fully disconnect users or restrict users to a even lower bandwidth

QoS Pipes	
Tree-based Pipes	Support partitioning link bandwidth into QoS pipes which can be furthher divided into child QoS pipes
Guaranteed/Bursts	Each pipe can have a guarantee bandwidth with a burst bandwidth to borrow unused bandwidth from its parent pipe
Fairness withink Pipes	Flows can be defined by host/session/subnet and fairness among fiows within a pipe can be strictly enforced
Per-IP Limit	Support Per-IP policy for limiting bandwidth / quota / concurrent session / new session rate
2-Level Punishment	Support over-quota limiting policy to fully disconnect users or restrict users to a even lower bandwidth.

L7 Patterns (3000+)	
Chat	Line/QQ/ AliWang Wang/Fetion/Dushow/Popo/5inaUC/5kype/Yahoo/ AOL/ICQ/Jabber /LavaLava/Gadu/-GoogleHangout...
P2P	Xunlei / Thunder / WebThunder / Flash Get / BT / eDonkey / eD2K / eMu le / Overn et / EzPeer / Kuro / ClubBox / Poco / F s2You / Ka Za A / Vagga / GoBoogy / Ares / iMesh / Gnutel la / WinMX / Bearshare / Shareaza / Morpheus / Gnucleus / Kugoo / Pigo / dc++ / 100bao etc
VoIP	Skype / Polycom / RTP / RTCP / SkypeOut / Eye ba11chat / SIP / TelTel / H .323 / MsnVoice / NetMeeting etc
Tunnel	Hopster / YourFreedom / Garden / Gpass / Tor / HttpTunnel / JAP / RealTunnel / Vnn / SoftEther / FreeGate / Wu jie etc
Streaming	QQTV / UUsee / PPfilm / PPlive / PPstream / RealPlayer / Quicklime / KKBox / Shoutcast / Winamp / Live365 / Radio365 / PPTV / Tvants / FastTV / SSTV / MeteorNetTV / 3TV / PhoenixTV / YahooMusic / MMS / SeeTV / QQlive / QQmusic / JetAudio / Jetcast
Enterprise	Citrix / MySQL / Notes / Oracle / MSSQL / RDP / VNC / UltraVNC / Win / PcAnywhere / Telnet / SSH / TeamViewer / Logmein
File Transfer	SkypeFile / Line File / SMB / FTP / OneDrive / GoogleDriveUp / Dropbox / AsusWebStorage / Aspera
Stock	HuaTai / Tazihuei / TungHuaShuen / Tienl / FenShiChia / Stoc kStar / ZaoZa ng / AnShi n / SkyNet
Game	Diablo3 / LoL / CounterStrike / DaHuaShiYo / Dance / Wa re raft / MoYu / CadinCa r / Mira cleWorid / Fight / WenDao / Lineage etc

http(s) DLP (Optional)	
File Formats	Support pdf / doc(x) / xls(x) / ppt(x) / txt / eml formats compressed in zip / tgz / 7z / rar / tar / gz files bandwidth
Rules	Support user-defined regular expressions with additional computational checking to lower false positives
Appearance	Support counting of appearances of each field with logical operators such as AND / OR / NOT to avoid false positives

Management	
User Interface	Support web-based Java UL, CLI (Telnet / SSH / Console), SNMP, management client software
Authentication	Support AD single sign-on or captive portal with AD / LDAP / RADIUS / POP3(S) / IMAP(S) authentication
Auto Upgrade Config Backup/Restore	Scheduled updates of application patterns / URL database / Anti-botnet databaseAuto-save feature facilitates easy configuration rollback to previous versions
Permission Control	Built-in centralized management and log server with 3-level permissions: admin / manager / audit

Networks
Secure Networks at Layer-7

InstantBalance®
Cloud-Gen Load Balancer

InstantBalance®
by Network 7

Cloud-Generation Load Balancer

Enterprise in cloud generation requires a lot of bandwidth to access servers in clouds. InstantBalance can help enterprise use cheaper WAN links to achieve the goal based on weight to distribute traffic across links. You can even direct cloud apps such as WebEx/ Team to your preferred WAN links to make your main WAN link focus on your enterprise resource.

Inbound Multi-Homing

For WAN links serving outside requests, to optimal methods to make outside visitors come in evenly among WAN links.

Layer-7 Application Delivery

InstantBalance can import SSL certificates to terminate incoming SSL connections from outside visitors and establish plain-text web traffic to internal web servers according to weights assigned. Decrypted traffic can be furthur inspected by WAF to avoid common attacks such as SQL injection. Servers are checked if they work normally and will be bypassed if its loading is too high.

SD-WAN

SD-WAN in InstantBalance can replace together to provide as good quality as MPLS but with much cheaper costs. Software-defined WAN makes it possible to load balance between VPN tunnels on different HQ-Branch WAN links.

IB-1000 / IB-3000 / IB-5000
3.3G / 6G / 8G Firewall throughput
800M / 2G / 3G WAN bandwidth
400M / 1.2G / 1.8G AES VPN

Enterprise

Small Medium Business

L7 Remote VPN client
PPTP
L2TP
IPsec
OpenVPN

IB-50 / IB-100 / IB-500
500M / 1.2G / 2.5G Firewall throughput
80M / 200M / 300M WAN bandwidth
30M / 80M / 200M AES VPN

Internet

Large Enterprise

IB-8000 / IB-10000
12G / 20G Firewall throughput
4G / 8G WAN bandwidth
2G / 4G AES VPN

D-Link

D-Link
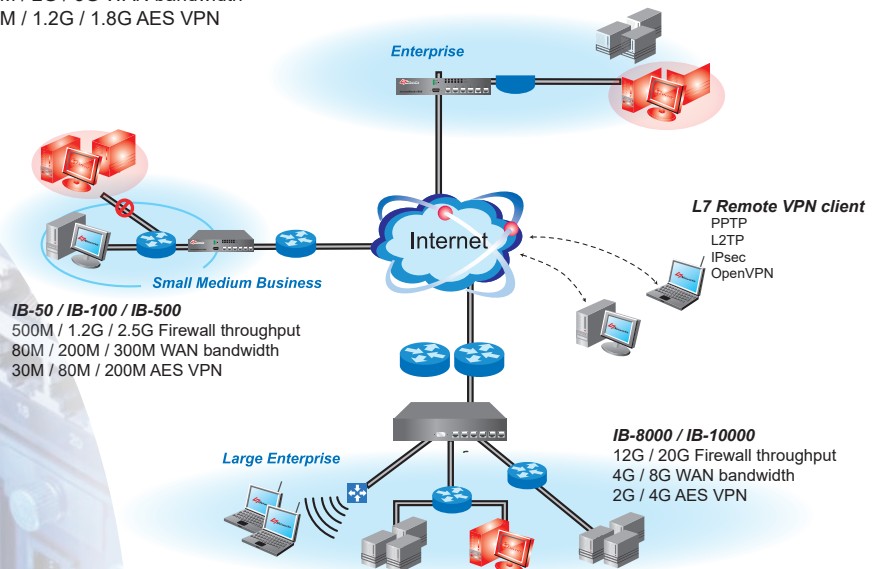
Model	50	100	500	1000	3000	5000	8000	10000
Size	19' 1U	19' 1U	19' 1U	19' 2U	19' 2U	19' 2U	19' 2U	19' 2U
Memory	2GB	2GB	4GB	4GB	4GB	8GB	8GB	16GB
Interfaces(UTP)	GEx6	GEx6	GEx6	GEx6	GEx6	GEx6	GEx8	GEx8
Expanable UTP	max:4	max:4	max:4	max:4	max:4	max:4	max:4	max:4
Expandable SFP	max:4	max:4	max:4	max:4	max:4	max:4	max:4	max:4
Expandable SFP+	-	-	-	max:4	max:4	max:4	max:4	max:4
Expandable QoS add-on	GEx6	GEx6	GEx6	GEx6(+4)	GEx6(+4)	GEx6(+4)	GEx6(+4)	GEx6(+4)
Power (110~240v)	Single	Single	Single	Single/Dual	Single/Dual	Single/Dual	Single/Dual	Single/Dual
Self-Defined WAN/LAN	V	V	V	V	V	V	V	V
Performance								
Max WANs (by VLAN)	10	20	20	50	100	100	300	500
Max concurrent IPs	200	500	1000	3000	5000	10000	20000	40000
Max rules	512	512	1024	1024	2048	4192	10K	20K
Max new session/sec	10K/s	20K/s	50K/s	70K/s	100K/s	200K/s	500K/s	1M/s
Max concurrent sessions	20K	200K	300K	1M	2M	4M	8M	12M
WAN license(upgradable)	80Mbps	200Mbps	300Mbps	600Mbps	1.2Gbps	2Gbps	4Gbps	6Gbps
System performance	500Mbps	1.2Gbps	2.5Gbps	3.3Gbps	6Gbps	8Gbps	12Gbps	20Gbps
VM platform	Support Vmware vSphere / Microsft Hyper-V / Citrix XenServer / KVM platforms							

IPv4/IPv6 Load Balance

Deployment	Mixed IPv4/v6 deployment with Bridge/Routing/NAT. Support DHCP/VLAN/QinQ/MPLS/PPPoE/802.3ad/GRE/RIPv1/RIPv2/OSPF Allow WAN/DMZ/LAN in same subnet for DMZ/LAN servers equipped with public IPs. Objects for rules can be IP/subnet/FQDN.
Outbound LB	Auto/manually distribute oubound connections to WANs by weight, least connections, available up/dw bandwidth, link quality
Outbound fail-over	WANs grouped into tiers. All members down in the same tier will trigger fail-over to another tier of WANs.
Inbound fail-over	Auto respond to incoming DNS queries with IPs of backup WAN links to avoid service disruption
Inbound LB (Mutihoming)	Built-in DNS for standard records of more than 500 domains/servers. Respond to incoming DNS queries with different WAN IPs according to weight, available bandwidth, least connections, link quality. TTLs can be configured to quickly respond to service distuption
Disaster Recovery	Auto switch to other IDC by DNS if main IDC fails. Auto recovery from disaster if main IDC is back on track
Persistent Route	Make connections from the same internal IP sticky to the same WAN link to avoid service disruption by bad web servers
VPN	Support IPsec/OpenVPN site-to-site VPN to connect branch offices to HQ or client-to-site VPN clients
SD-WAN	Branch-HQ MPLS VPNs can be replaced by multiple cheap WANs grouped into software-defined WANs to save costs
Policy Route	Support rules for specific IP subnet VLAN towards specific public IP/FQDN in certain periods to route to speficic WANs
NAT	Support 1-to-1, many-to-1, 1-to-many NAT rules to share public IPs according to NAT policy rules
Virtual Server	Support destination NAT to redirect specific traffic to certain IP and port
Link Health Check	Monitor WAN link quality according to configurable loss rate and manage to migrate traffic to other stable links
Server LB	Load balance traffic towards server according to URL/Header/Cookie/FileType/FileName, and execute insert/remove/modify layer-7 content filter/rewrite. Support methods of weighted round-robin, least connections. Persistence support cookie / source / desitination URL / SSL session ID
Server Health Check	Support L3(IP) / L4(port) / L7(app) health check methods with built-in HTTP/SSL/LDAP/MySQL/PgSQL/Redis/SMTP/Proxy/... or self-defined Send/Expect content inspection for scripting your own health checks
Management	
High Availability	Support VRRP to work in Active-Standby mode to avoid service disruption during hardware failure
User Interface	Support https/http/SSH/SNMP/Console for management. Support role management with difference self-defined accounts
Security	Support anti-DoS by SYN-Proxy or thresholds of limits per seconds to filter denial of service attacks
Alert	Support email alerts if WAN links are down or HA triggers. Support SNMP trap and syslog to other 3rd-party systems
Statistics	Support realtime monitoring of WAN/VPN links and history logs
Debug tool	Support IPv4 tools such as traceroute/ping/nslookup and IPv6 toos such as NBT/NDE

QoS Add-on (option)	This add-on board can enhance application qos
L7 App Pattern	Support auto update of following protocols (3000+ apps)
Chat	Line/QQ/AliWangWang/Fetion/Dushow/Popo/SinaUC/Skype/Yahoo/AOL/ICQ/Jabber/LavaLava/Gadu/GoogleHangout... Xunlei/Thunder/WebThunder/FlashGet/BT/eDonkey/eD2K/eMule/Overnet/EzPeer/Kuro/ClubBox/Poco/Fs2You/KaZaA/
P2P	Vagga /GoBoogy /Ares /iMesh/Gnutella/WinMX/Bearshare/Shareaza/Morpheus/Gnucleus/Kugoo/Pigo/dc++/100bao
VoIP	WebEx / Teams / GoogleMeet / Skype/Polycom/RTP/RTCP/SkypeOut/Eyeballchat/SIP/TelTel/H.323
Tunnel	Hopster/YourFreedom/Garden/Gpass/Tor/HttpTunnel/JAP/RealTunnel/Win/SoftEther/FreeGate/Wujie/... QQTV /UUsee /PPfilm /PPlive /PPstream /RealPlayer /QuickTime /KKBox /Shoutcast /Winamp /Live365 /Radio365/PPTV/
Streaming	Youtube / Netflix / Disney+ / Dailymotion / SSTV /MeteorNetTV /3TV /PhoenixTV /YahooMusic /MMS /SeeTV /QQlive /QQmusic
Enterprise	Citrix /MySQL /Notes /Oracle /MSSQL /RDP /VNC /UltraVNC /Win /PcAnywhere /Telnet /SSH /TeamViewer /Logmein
File Transfer	SkypeFile / LineFile / SMB / FTP / OneDrive / GoogleDriveUp / Dropbox / AsusWebStorage / Aspera / ...
Stock	HuaTai/Tazihuei/TungHuaShuen/Tienl/FenShiChia/StockStar/ZaoZang/AnShin/SkyNet
Game	Diablo3/LoL/CounterStrike/DaHuaShiYo/Dance/WarCraft/MoYu/CadinCar/MiracleWorld/Fight/WenDao/Lineage/...
Threat Centers	
Auto update	Support auto update to BlacklistTotal.com who integrate Malware Patrol / FireHOL / Cisco Talos / NCCST / F-ISAC / SSLBL / ...
Anti-Bot	Support blocking traffic towards IPs listed in BlacklistTotal.com to stop Bot controlled by malware / ramsonware
Web URL Database	
Auto update	Support 80/443 and other ports of http(s) for filtering with daily auto updates
URL Database	Support 70+ categories including Porn/Ads/Gambling/Violence/Stock/News/Game/Comic/Chats/Jokes/Hacker/Phishing/Spyware
QoS by Category	Support self-defined keywords or built-in categories, together with IP/subnet/app to assign traffic into QoS channels
QoS	
Bidirectional QoS	Support QoS profiles for In/Out bandwidth partitioning into multi-level pipes for rules to assign traffic
Bandwidth Guarantee	Support different QoS profiles for different schedule periods
Rate/#Session/Quota	Support dynamic bandwidth borrowing (max rate), guarantee (min rate), intra QoS pipe session/IP limits (reserve rate)
2-Level Punishment	Support IP/user-based rate/volume limiting and provide portals for status check by users
	Support web page alert of running out of quota and its following rate/session limiting
Reports	
Storage	Database software for installation on Windows 10 VMs where storage sizes depend on your hardware
Top Reports	Dashboards of many daily/weekly/monthly reports which interactively drill-down ability into top of tops or raw events
Bandwidth Reports	Daily/Weekly/Monthly bandwidths of Apps / Catgories / Attacks with drill-down ability into certain period of time
Reports/Alerts	Daily/Weekly/Monthly email/pdf/html/xls format reports. Support alerts of events by email / SMS / Line messages to admin

D-Link

D-Link
FOR BUSINESS

2023

FIBER SOLUTION TRANSCEIVER & MEDIA CONVERTER

Your Link to Business Success

High-Speed Network Transmission for Business Environments

D-Link also offers various fiber accessories like transceiver and media converter for long distance high-speed network transmission, its increased flexibility when expanding a new or existing networkand also provides network administrators with a wide variety of solutions to expand networks over a greater distance while maintaining compatibility with existing network equipment.

SFP Transceiver

Hot Pluggable

All D-Link transceivers are hot pluggable. You can connect a transceiver while the system is powered on without causing any issues, and easily swap one for another without having to reboot the switch each time. This permits modules to be added or removed without interrupting the network, facilitating maintenance and greatly reducing downtime.
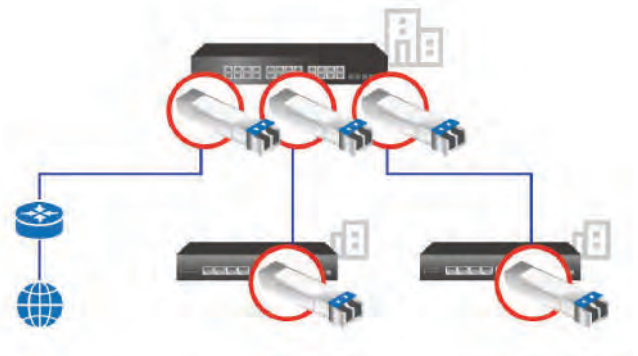
Multiple Applications

Applications of the DEM-300/400 Series fiber transceivers include distributed multi-processing, Gigabit switch cascading, high-speed I/O file transfer, bus extension application, and channel extender/data storage. This versatility is invaluable for an expanding network, and helps the infrastructure grow with the business.
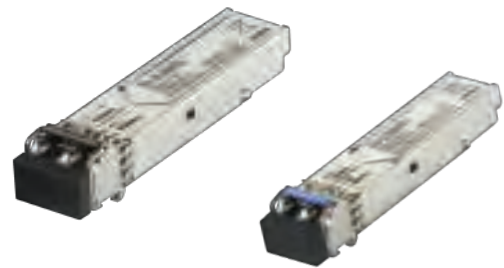
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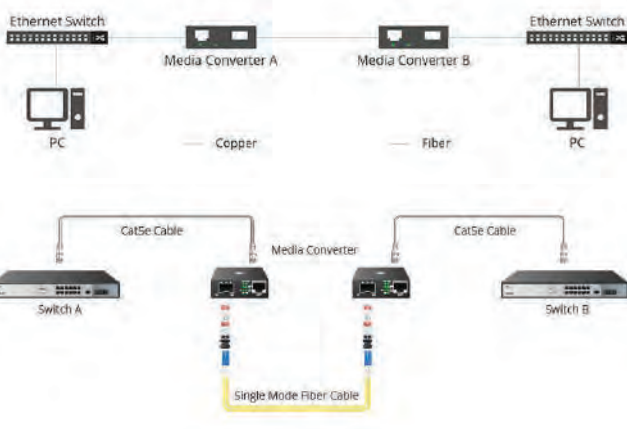
Media Converter

Media converters convert signals that are transmitted from one type of media to another so that they can be transmitted over a different type of media. This series of media converters converts 10/100/1000 Mbps copper Ethernet to a 100/1000 Mbps fibre optic connection. This allows you to expand your network by connecting longer distance, high-speed fibre optic cables between devices that are otherwise connected with short distance Ethernet cables, such as Cat. 5 twisted-pair cables.

SFP/SFP+ Transceivers

D-Link's Small Form-Factor Pluggable (SFP) and 10 Gigabit Small Form-Factor Pluggable (SFP+) Transceivers help to achieve long-distance data transmission and high-speed communication with single-mode fiber, multi-mode fiber and copper cables. These modules can be easily installed into compatible switches and media converters; please see the switch and media converter comparison tables for relevant compatibility.

Fast Ethernet SFP Transceivers

MODEL		DEM-210	DEM-211	DEM-220T	DEM-220R
Standard		IEEE 802.3u 100 BASE-FX	IEEE 802.3u 100 BASE-FX	IEEE 802.3ah 100 BASE-BX-D	IEEE 802.3ah 100 BASE-BX-U
Connector		Duplex LC	Duplex LC	Simplex LC	Simplex LC
Fiber Type	Single-Mode	9/125 μm		9/125 μm	9/125 μm
	Multi-Mode		50/125 μm 62.5/125 μm		
Wavelength		1310 nm	1310 nm	TX: 1550 nm RX: 1310 nm	TX: 1310 nm RX: 1550 nm
Maximum Distance		15 km	2 km	20 km	20 km
Power		3.3 V	3.3 V	3.3 V	3.3 V
Hot-Pluggable		•	•	•	•

Gigabit Ethernet SFP Transceivers

MODEL		DEM-310GT	DEM-311GT	DEM-312GT2	DEM-314GT	DEM-315GT	DEM-330T	DEM-330R	DEM-331T	DEM-331R	DGS-712
Standard		IEEE 802.3z 1000BASE-LX	IEEE 802.3z 1000BASE-SX	IEEE 802.3z 1000BASE-SX	IEEE 802.3z 1000BASE-LHX	IEEE 802.3z 1000BASE-ZX	IEEE 802.3ah 1000 BASE-BX-D	IEEE 802.3ah 1000 BASE-BX-U	IEEE 802.3ah 1000 BASE-BX-D	IEEE 802.3ah 1000 BASE-BX-U	IEEE 802.3ab 1000BASE-T
Connector		Duplex LC	Duplex LC	Duplex LC	Duplex LC	Duplex LC	Simplex LC	Simplex LC	Simplex LC	Simplex LC	RJ-45
Fiber Type	Single-Mode	9/125 μm: 10km			9/125 μm	9/125 μm	9/125 μm	9/125 μm	9/125 μm	9/125 μm	
	Multi-Mode		50/125 μm: 550m 62.5/125 μm: 300m	50/125 μm: 2km 62.5/125 μm: 1km							
Wavelength		1310 nm	850 nm	1310 nm	1550 nm	1550 nm	TX: 1550 nm RX: 1310 nm	TX: 1310 nm RX: 1550 nm	TX: 1550 nm RX: 1310 nm	TX: 1310 nm RX: 1550 nm	
Maximum Distance		10 km / 550m	550 m / 300m	2km / 1km	50 km	80 km	10 km	10 km	40 km	40 km	100m
Power		3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V
Hot-Pluggable		•	•	•	•	•	•	•	•	•	•

10 Gigabit Ethernet SFP+ Transceivers

MODEL		DEM-431XT / DEM-431XT-DD	DEM-432XT / DEM-432XT-DD	DEM-433XT / DEM-433XT-DD	DEM-434XT	DEM-435XT / DEM-435XT-DD	DEM-436XT-BXD	DEM-436XT-BXU
Standard		IEEE 802.3ae 10GBASE-SR	IEEE 802.3ae 10GBASE-LR	IEEE 802.3ae 10GBASE-ER	IEEE 802.3ae 10GBASE-ZR	IEEE 802.3ae IEEE 802.3aq 10GBASE-LRM	IEEE 802.3ae 10GBASE-LR	IEEE 802.3ae 10GBASE-LR
Connector		Duplex LC	Duplex LC	Duplex LC	Duplex LC	Duplex LC	Simplex LC	Simplex LC
Fiber Type	Single-Mode		9/125 μm	9/125 μm	9/125 μm			9/125 μm
	Multi-Mode	50/125 μm: 300m 62.5/125 μm: 33m				50μm, 400MHz-km: 100m 50μm, OM2, 500MHz-km: 220m 50μm, OM3, 2000MHz-km: 220m 62.5/125 μm: 220m	9/125 μm	
Wavelength		850 nm	1310 nm	1550 nm	1550 nm	1310 nm	TX: 1330 nm RX: 1270 nm	TX: 1270 nm RX: 1330 nm
Maximum Distance		300 m / 33m	10 km	40 km	80 km	220 m	20 km	20 km
Power		3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V
Hot-Pluggable		•	•	•		•	•	•
Digital Diagnostics Monitoring		• (DEM-431XT-DD)	• (DEM-432XT-DD)	• (DEM-433XT-DD)		• (DEM-435XT-DD)		

40 Gigabit Ethernet QSFP+ Transceivers

MODEL		DEM-QX01Q-SR4	DEM-QX10Q-LR4
Standard		40GBASE-SR4	40GBASE-LR4
Connector		MPO	Duplex LC
Fiber Type	Single-Mode		9/125 μm
	Multi-Mode	OM3: 100m OM4: 150m	
Wavelength		850 nm	L0: 1271 nm, L1: 1291 nm, L2: 1311 nm, L3: 1331 nm
Maximum Distance		150 m	10 km
Power		3.3 V	3.3 V
Hot-Pluggable		•	•
Digital Diagnostics Monitoring			•

Industrial Grade Gigabit Ethernet SFP Transceivers*

MODEL		DIS-S310LX	DIS-S301SX	DIS-S302SX	DIS-S350LHX
Standard		IEEE 802.3z 1000BASE-LX	IEEE 802.3z 1000BASE-SX	IEEE 802.3z 1000BASE-SX	IEEE 802.3z 1000BASE-LHX
Connector		Duplex LC	Duplex LC	Duplex LC	Duplex LC
Fiber Type	Single-Mode	9/125 μm			9/125 μm
	Multi-Mode		50/125 μm	50/125 μm	
Wavelength		1310 nm	850 nm	1310 nm	1550 nm
Maximum Distance		10 km	550 m	2 km	50 km
Power		3.3 V	3.3 V	3.3 V	3.3 V
Hot-Pluggable		•	•	•	•
Operating Temperature		-40 to 85℃	-40 to 85℃	-40 to 85℃	-40 to 85℃

* For Use With DIS-200G Series
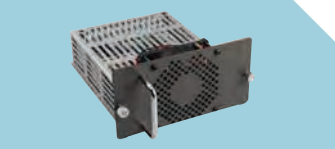
D-Link

Media Converters

Media converters act as the link point to join copper and fiber connections together, in other words to connect 10/100/1000BASE-T copper to fiber (or vice versa) in order to enable exceedingly rapid network data traffic at enterprise level. They act as a useful conduit when expanding a network, as existing copper-cable-based switches do not have to be replaced but can be expanded upon into a fiber network through the use of a D-Link Media Converter.

There are 2 series of media converters: Chassis-based and Standalone. The Chassis-based Series can be slot into a 16-slot chassis equipped with its own housing and AC power supply. The chassis can be mounted into the rack. This series of media converters can also be used as standalone unit. The Chassis-based Series can be managed with Management Functions. The DMC-1002 Management Module is available with mix managment SNMP and Web Management capabilities.

Chassis-based/Standalone Media Converter Series

MEDIA CONVERTERS	DMC-300SC	DMC-515SC	DMC-530SC	DMC-700SC	DMC-805G	DMC-810SC	DMC-920	DMC-1910
Standards	10/100BASE-TX 100BASE-FX	10/100BASE-TX 100BASE-FX	10/100BASE-TX 100BASE-FX	1000BASE-T 1000BASE-SX	IEEE 802.3ab IEEE-802.3z	1000BASE-T 1000BASE-LX	10/100BASE-TX 100BASE-FX	1000BASE-T 1000BASE-LX
Connectors	SC / RJ45	SC / RJ45	SC / RJ45	SC / RJ45	RJ45 / SFP	SC / RJ45	SC / RJ45	SC / RJ45
Data Rate	100 Mbps	100 Mbps	100 Mbps	1 Gbps	1 Gbps	1 Gbps	100 Mbps	1 Gbps
Fiber Type	Multi-Mode	Single-Mode	Single-Mode	Multi-Mode	Single-Mode / Multi-Mode	Single-Mode	Single-Mode	Single-Mode
Fiber Wavelength	1310 nm	1310 nm	1310 nm	850 nm	Depends on SFP Transceivers	1310 nm	DMC-920T: TX: 1550nm, RX: 1310nm DMC-920R: TX: 1310nm, RX: 1550 nm	DMC-1910T: TX: 1550nm, RX: 1310nm DMC-1910R: TX: 1310nm, RX: 1550 nm
Maximum Distance	2 km	15 km	30 km	550 m	Depends on SFP Transceivers	10 km	20 km	15 km

16-Slot Chassis

CHASSIS AND ACCESSORIES	DMC-1000	DMC-1001	DMC-1002
Description	16-Slot Media Converter Chassis with Internal Power Supply	Redundant Power Supply for DMC-1000	Management Module with SNMP

Standalone Media Converter Series

MEDIA CONVERTERS	DMC-G01LC	DMC-F02SC	DMC-F15SC	DMC-F20SC-BXD	DMC-F20SC-BXU	DMC-F30SC	DMC-F60SC
Standards	IEEE 802.3ab IEEE-802.3z	10/100BASE-TX 100BASE-FX	10/100BASE-TX 100BASE-FX	10/100BASE-TX 100BASE-FX	10/100BASE-TX 100BASE-FX	10/100BASE-TX 100BASE-FX	10/100BASE-TX 100BASE-FX
Connectors	RJ45 / SFP	SC / RJ45	SC / RJ45	SC / RJ45	SC / RJ45	SC / RJ45	SC / RJ45
Data Rate	1 Gbps	100 Mbps	100 Mbps	100 Mbps	100 Mbps	100 Mbps	100 Mbps
Fiber Type	Single-Mode / Multi-Mode	Multi-Mode	Single-Mode	Single-Mode	Single-Mode	Single-Mode	Single-Mode
Fiber Wavelength	Depends on SFP Transceivers	1310 nm	1310 nm	TX: 1550nm, RX: 1310nm	TX: 1310nm, RX: 1550 nm	1310 nm	1310 nm
Maximum Distance	Depends on SFP Transceivers	2 km	15 km	20 km	20 km	30 km	60 km

D-Link