

# TOTAL BUSINESS NETWORKING SOLUTIONS

## PRODUCT GUIDE 2018



Your Link to Business Success

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

For over 30 years, 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?

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# High-Speed 10 Gigabit Network Solutions



## Layer 2/3 10G Switches (DXS-1100 Series, DXS-1210 Series, DXS-3400 Series, DXS-3600 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-3600 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 Adapters (DXE-810T, DXE-820T, DXE-810S)

The D-Link 10 Gigabit Ethernet PCI Express Adapter provide high speed data transmission at rates of up to 20Gbps in full duplex mode. The option to choose either SFP+ or copper port model gives you flexibility of deployment along with advanced features (802.1Q VLAN tagging, checksum offloading) available on these NIC.

## 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

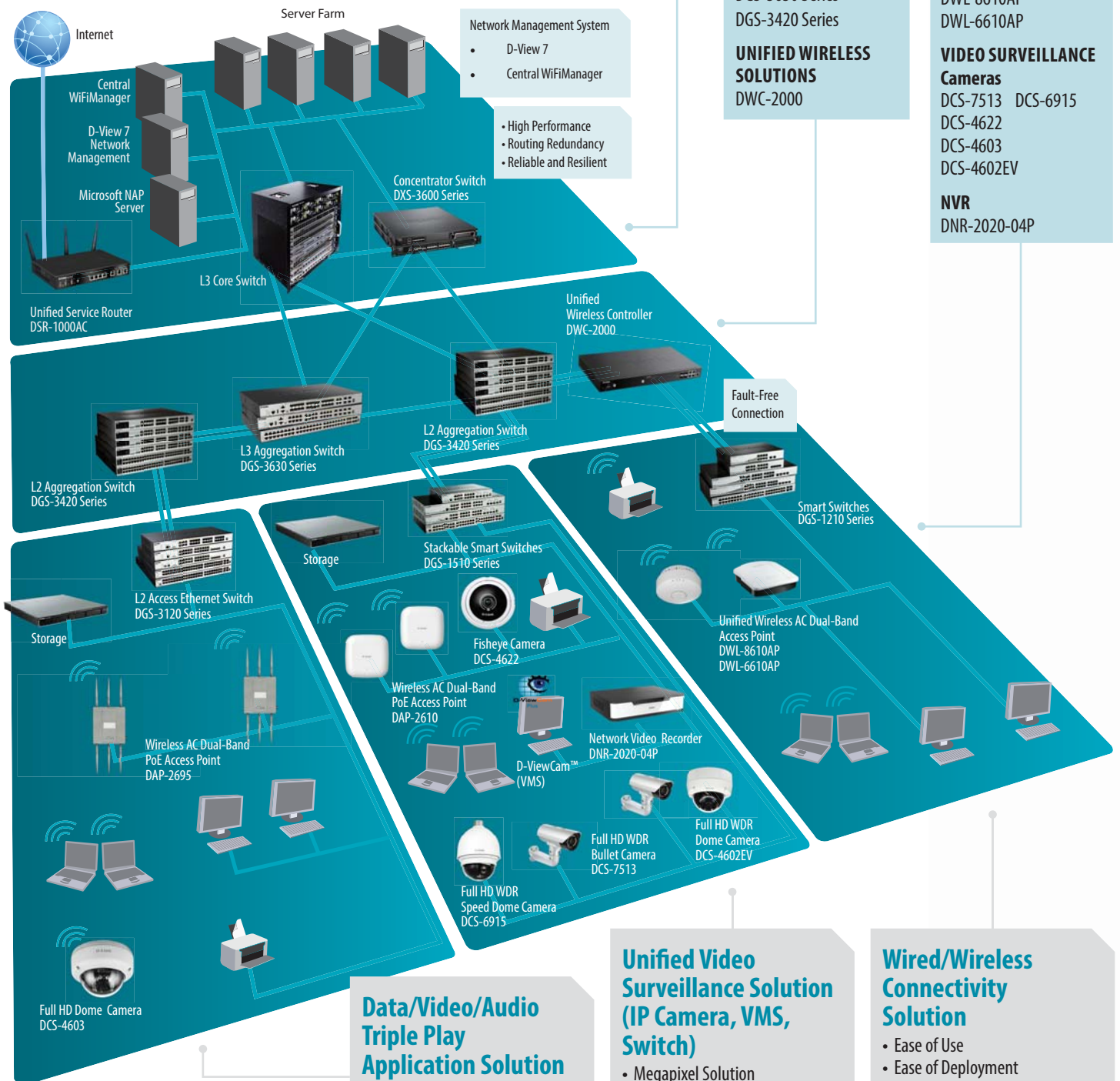
**Cat 7** – support 10GBase-T up to 100 meters with strict specifications for crosstalk and system noise





# Key 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 CONCENTRATOR SWITCHES**  
 DXS-3600 Series

**Aggregation Network**  
**LAYER 2 / LAYER 3 AGGREGATED ETHERNET SWITCHES**  
 DGS-3630 Series  
 DGS-3420 Series  
**UNIFIED WIRELESS SOLUTIONS**  
 DWC-2000

**Access Network**  
**LAYER 2 ACCESS ETHERNET SWITCHES**  
 DGS-3120 Series  
**SMART SWITCHES**  
 DGS-1510 Series  
 DGS-1210 Series  
**WIRELESS ACCESS Standalone**  
 DAP-2695  
 DAP-2610  
**Unified**  
 DWL-8610AP  
 DWL-6610AP  
**VIDEO SURVEILLANCE Cameras**  
 DCS-7513 DCS-6915  
 DCS-4622  
 DCS-4603  
 DCS-4602EV  
**NVR**  
 DNR-2020-04P

**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)**

- Megapixel Solution
- Standalone NVR/VMS
- PoE Switch

**Wired/Wireless Connectivity Solution**

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



# 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 Layer 2/3 high-end PoE switches, D-Link offers features like Time-Based PoE to centrally cut off the power when not in use, and the 802.3bt draft (uPoE) standard, to provide extra power 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.

## What's a MAC Address?

In networking terms, MAC has nothing to do with the eponymous Apple computers; it stands for Media Access Control and is a unique identifier assigned to network interfaces for communications on the physical network segment. Every device (computer, printer, IP Camera etc) has a MAC address so that a switch knows where to direct traffic.



# 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-3600 Series

## 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

## 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

## 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



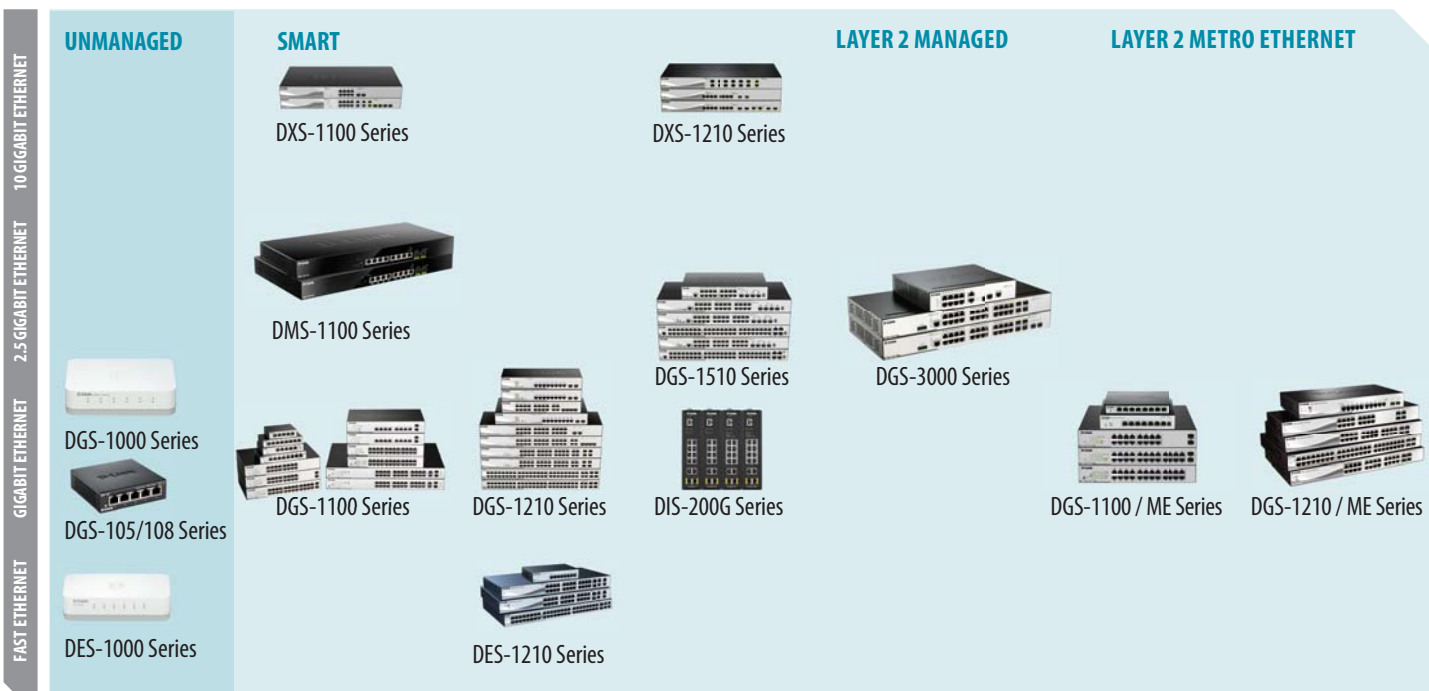
## 10 GbE Top-Of-Rack Switches



## Layer 2/3 Stackable Switches



## Standalone Switches

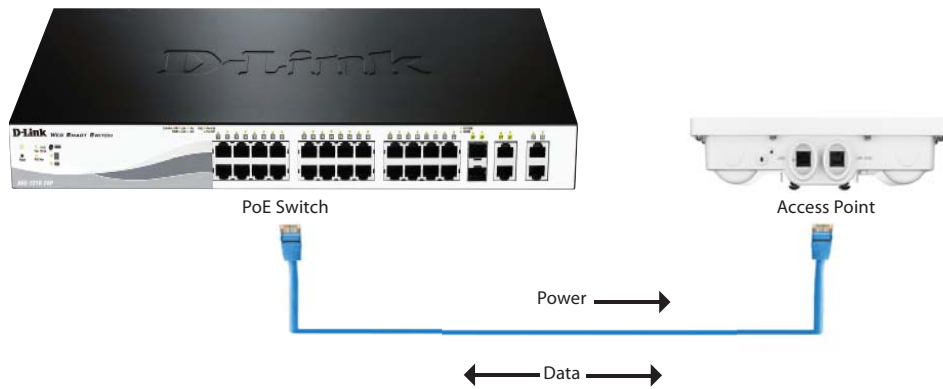


## PoE Switches

Speed	UNMANAGED	SMART	LAYER 2/2+	METRO ETHERNET
2.5 GIGABIT ETHERNET		DMS-1100-10TP (PoE+)		
GIGABIT ETHERNET	DGS-1008P (PoE+) DGS-1008MP (PoE+)	DGS-1100-05PD (PoE) DGS-1100-08P (PoE+) DGS-1100-24P (PoE+) DGS-1100-10MP (PoE+) DGS-1100-10MPP (UPoE) DGS-1100-26MP (PoE+) DGS-1100-26MPP (UPoE)	DGS-1210-10P (PoE+) DGS-1210-10MP (PoE+) DGS-1210-28P (PoE+) DGS-1210-28MP (PoE+) DGS-1210-52MP (PoE+) DGS-1210-52MPP (PoE+) DGS-1510-28P (PoE+) DGS-1510-28XMP (PoE+) DGS-1510-52XMP (PoE+) DIS-200G-12PS (PoE+) DIS-200G-12PSW (PoE+)	DGS-3000-28LP (PoE+) DGS-3000-28XMP (PoE+) DGS-3120-24PC (PoE+) DGS-3120-48PC (PoE+) DGS-3130-30NPS (PoE+) DGS-3130-30PS (PoE+) DGS-3130-54PS (PoE+) DGS-3420-28PC (PoE+) DGS-3420-52P (PoE+) DGS-3630-28PC (PoE+) DGS-3630-52PC (PoE+)
FAST ETHERNET	DES-1008PA (PoE) DES-1018MP (PoE)	DES-1210-08P (PoE) DES-1210-28P (PoE+)		DGS-1100-24P/ME (PoE+) DGS-1210-10P/ME (PoE+) DGS-1210-28P/ME (PoE+) DGS-1210-28MP/ME (PoE+) DGS-1210-52P/ME (PoE+) DGS-1210-52MP/ME (PoE+) DGS-1210-52MPP/ME (PoE+)

# Power over Ethernet (PoE)

**Single Cable for Data & Electrical Power Transmission = Ease of Installation + Cost Savings**



## What is PoE?

Power-over-Ethernet allows a single cable to provide both network connectivity and electrical power to PoE-enabled devices such as wireless access points, network cameras and VoIP phones. With no need to install separate power supplies for IP phones or wireless access points, you can take advantage of advanced communications technologies more quickly and at a lower cost.

### PoE

#### IEEE 802.3af

- Provides up to 15.4 watts per PoE device
- Most PoE devices eg. VoIP phone or IP camera requires only half or even less PoE power from the PoE switch

### PoE+

#### IEEE 802.3at

- Also known as PoE+ or PoE plus, up to 25.5watts per PoE device
- Mostly required on multiple radio Access Point, business IP cameras eg. Pan/Tilt/Zoom (PTZ cameras)

### UPoE

#### IEEE 802.3bt draft\*

- May offer up to 100W of power over a single cable by utilising all four pairs in the Category 5 cable (To be rectified in 2018).

\*D-Link DGS-1100-10MPP & DGS-1100-26MPP support 802.3bt draft, providing up to 75W on selected ports for high-powered equipment.

## What is a D-Link Green PoE Switch?

There are many advantages of using Power-over-Ethernet when you are adding wireless access, network surveillance or VoIP phones to your network. This is especially true when installing these devices at remote or outdoor locations without having to connect to an additional AC power source. This allows devices to be installed without an electrician, saving you time and money.

### Cost Saving

PoE saves time and money by avoiding the need for separate installation of data and power infrastructures. Such cost can be substantial per Ethernet port, when an electrical technician is involved.

### Simplicity

Power is fully integrated with Ethernet infrastructure, so access to hard to reach places for power deployment, such as ceilings, becomes simpler.

### Flexibility

PoE network devices can be easily moved without need for AC power outlets, minimizing business disruption. Wherever there is an Ethernet connection, a PoE network device can be easily deployed. In addition, PoE will accelerate the deployment of wireless access points and network cameras because power, which is rarely available above the ceiling, can now be offered over the Ethernet cable.

### Reliability

High reliability can be achieved when deployed in conjunction with an uninterruptible power supply. Furthermore, the need for a local backup for each AC outlet is avoided as well as protection against electrical surges that can damage your equipment.

### Control

SNMP management capabilities provide control and monitor of the PoE network devices.

### Security

Shutting down unnecessary PoE network devices when no one is at 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.



## What is PoE Power Budget?

The PoE power budget is the maximum amount of power that a switch can provide to all the 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 consumption of every device connected to the switch.

It is essential to consider the current and future requirements of the network, since over specifying the power budget of a switch will result in higher initial costs. D-Link has an extensive range of PoE switches to address different requirements. Those with PoE+ support and higher power budgets are capable of providing more power per port than lower power budget alternatives which are more economical.

### What Needs How Much Power?



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



Wireless access points (APs), due to their placements, typically use PoE to power themselves. 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 Wireless AC technology which delivers wireless speeds of up to 1300 Mbps on the 5GHz band with enhanced coverage can benefit from PoE+'s additional power.

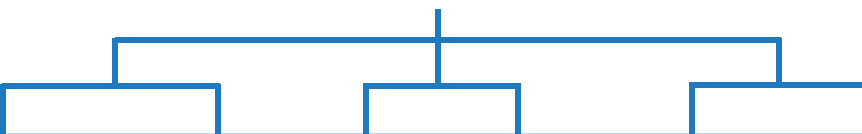


There are several types of IP cameras, from a basic box camera to an outdoor pan, tilt and zoom (PTZ) speed dome camera with an integrated heater, each one has a different power requirement. Basic outdoor IP cameras have a power consumption of about 7W, however additional features require additional power so that the power requirements increase. An outdoor PTZ will require a significant large amount of power.

## How To Select The Right PoE Switch?



DGS-1510-28P PoE Switch



IP Phones (PoE supported)



7W

+

7W

Wireless Access Points (PoE supported)



15.4W

+ 15.4W

IP Camera (PoE supported)



25W

+ 7W

Total PoE Power Required

= 76.8W

The following guidelines are meant to provide estimates for power consumption.

Actual power requirements vary and should be confirmed for each model when determining your PoE budget requirements.

IP Phone 3 - 7W

Access Point 8W for n radios and upwards of 20W for AC radios

IP Camera: 7 - 10W  
PZT Camera: 15 - 25+ W

As per the illustration above, the total PoE power required to power up all the network devices are: 7W + 7W + 15.4W + 15.4W + 25W + 7W = 76.8W

After you calculate the total PoE power required, look under the PoE Switches category to identify which PoE switch can satisfy the requirements of PoE budget and other functions.

Model	DGS-1100-08P
Model Description	Layer 2 Lite Smart Managed Gigabit PoE Switch
PoE Power Budget	64 W ❌

Model	DGS-1100-24P
Model Description	Layer 2 Lite Smart Managed Gigabit PoE Switch
PoE Power Budget	100 W ✅

1. Each PoE switch comes with a max power budget (in watts), which is the total amount of power that can supply to Powered Devices (for example VoIP Phone, Wireless Access Points, IP Cameras) at one time.
2. When selecting from D-Link range of PoE switches, please identify the quantity and calculate the power budget required by all Powered Devices connected to the switch based on the 802.3af/at classification that the PDs belong to.
3. Identify the switches functions required by customer, ie. Basic Layer 2 functions, Standard Layer 2 or Layer 3 functions.

# 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

### Key Series Features

- Fanless
- IEEE 802.3x Flow Control
- Auto MDI/MDIX
- Plug-and-Play installation
- Quality of Service (QoS)

\*Functions Listed above are Model Dependent.



### 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	
<b>Interfaces</b>	100BASE-TX (Fast Ethernet)	5	8	5	8	8	
<b>General Features</b>	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					
<b>Quality of Service (QoS)</b>	Jumbo Frame			2048 Bytes	2048 Bytes		
	Standard	802.1p					
	Number of Queues						
<b>Power over Ethernet</b>	Mode						
	Standard						
	PoE Ports						802.3af (PoE)
<b>Physical and Environment</b>	PoE Power Budget						4
	Power Supply	External					58 W
	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
<b>Interfaces</b>	100BASE-TX (Fast Ethernet)	16	24	16	24	16	24
<b>General Features</b>	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					
<b>Quality of Service (QoS)</b>	Jumbo Frame			9216 Bytes	9216 Bytes		
	Standard	802.1p	802.1p	802.1p	802.1p	802.1p	802.1p
	Number of Queues	2	2	4	4	4	4
<b>Physical and Environment</b>	Mode	Strict	Strict	Strict	Strict	Strict	Strict
	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
<b>Interfaces</b>	100BASE-TX (Fast Ethernet)	16
	10/100/1000BASE-T/SFP Combo Slots	2
<b>General Features</b>	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
<b>Power Over Ethernet (PoE)</b>	Standard	802.3af (PoE)
	PoE Ports	16
<b>Physical and Environment</b>	PoE Power Budget	246.4 W
	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	



# 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-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 (A2)



- 10/100/1000BASE-T PoE ports x 8
- Supports 802.3af PoE & 802.3at PoE+
- 140 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-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-105/108 Series

### DGS-105



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

### DGS-108



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





MODEL		DGS-1005A	DGS-1008A	DGS-1005C	DGS-1008C	DGS-1008P	DGS-1008MP (A2)
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					
Quality of Service (QoS)	Jumbo Frame	9216 Bytes	9216 Bytes	9216 Bytes	9216 Bytes	9216 Bytes	9216 Bytes
	Standard	802.1p	802.1p	802.1p	802.1p	802.1p, DSCP	
	Number of Queues	4	4	4	4	4	
Power over Ethernet	Mode	Strict	Strict	Strict	Strict	Strict	
	Standard					802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
	PoE Ports					4	8
Physical and Environment	PoE Power Budget					68 W	140 W
	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	
Dimensions (W x D x H)	91 x 73 x 22 mm	131 x 82 x 22 mm	106 x 87 x 21.45 mm	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					
Quality of Service (QoS)	Jumbo Frame	9600 Bytes	9600 Bytes	9216 Bytes	9216 Bytes	9216 Bytes	9600 Bytes
	Standard			802.1p	802.1p	802.1p	802.1p
	Number of Queues			8	8	4	4
Power over Ethernet	Mode			Strict	Strict	Strict	Strict
	Standard						
	PoE Ports						
Physical and Environment	PoE Power Budget						
	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	
Quality of Service (QoS)	Jumbo Frame	9216 Bytes	
	Standard	IEEE 802.1p	
	Number of Queues	4 Queues	
Physical and Environment	Mode	Strict	
	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	

# Layer 2 Lite Gigabit Ethernet Smart Managed Switches

## DGS-1100 Series

D-Link's DGS-1100 Series provides an affordable solution for small offices, home offices and small and medium businesses as well as enterprise deployment, anywhere in fact that requires simple installation and easy network management. Each model comes in a compact desktop-sized metal case and features either 5, 8, 16, 24, or 8 PoE and 24 with 12 PoE-enabled Gigabit ports. Compliant with IEEE802.3az Energy Efficient Ethernet, these switches consume less energy by cutting down on power consumption when port utilisation 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 Series also features D-Link Green™ Technology to help save energy automatically by monitoring the link status of every port and drastically reducing power consumption when a port link is down.



### Key Series Features

- Basic configurable options
- 11in metal case. Comes with mounting kit to install in 19in racks (except DGS-1100-05PD/08/08P/08PD)
- Improved resilience, longer MTBF (Mean Time Between Failures)
- VLAN support for traffic segmentation
- Auto surveillance VLAN for easy integration with IP-based surveillance systems
- Loopback Detection (LBD) and Broadcast Storm Control to avoid network downtime
- Quality of Service (QoS) and Bandwidth Control to ensure smooth operation
- Cable diagnostics function to help troubleshoot wiring problems
- Web-based GUI or Network Assistant utility
- 802.3az Energy Efficient Ethernet (EEE) compliant

### Principle Product Features

#### DGS-1100-05PD (B1)

- 10/100/1000BASE-T PoE ports x 2
- 10/100/1000BASE-T ports x 3
- 802.3af PoE support (Port 1 - 2)
- PoE Passthrough:
  - 18 W with 802.3at input
  - 8 W with 802.3af input

#### DGS-1100-08 (B1)

- 10/100/1000BASE-T ports x 8

#### DGS-1100-08P (B1)

- 10/100/1000BASE-T PoE ports x 8
- 802.3af PoE and 802.3at (PoE+) support
- 64 W PoE Power Budget

#### DGS-1100-08PD (B1)

- 10/100/1000BASE-T ports x 8
- 802.3af PoE Power via PD Port 1

#### DGS-1100-16 (B2)

- 10/100/1000BASE-T ports x 16

#### DGS-1100-24 (B2)

- 10/100/1000BASE-T ports x 24

#### DGS-1100-24P (B2)

- 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

### Optional Accessories

Optional Management Software (Supports DGS-1100-16/24/24P)  
DV-700 D-View 7 Network Management System







MODEL		DGS-1100-05PD (B1)	DGS-1100-08 (B1)	DGS-1100-08P (B1)	DGS-1100-08PD (B1)	DGS-1100-16 (B2)	DGS-1100-24 (B2)	DGS-1100-24P (B2)	
Interfaces	Gigabit Ethernet	5 (Port 1 & 2 supports PoE)	8	8 (PoE)	8	16	24	12 (PoE) + 12	
	Stackability								
General Features	Stacking Speed								
	Switching Capacity	10 Gbps	16 Gbps	16 Gbps	16 Gbps	32 Gbps	48 Gbps	48 Gbps	
	Max Packet Forwarding Rate	7.44 Mpps	11.9 Mpps	11.9 Mpps	11.9 Mpps	23.81 Mpps	35.71 Mpps	35.71 Mpps	
	Packet Buffer Memory	1 Mbits	1.5 Mbits	1.5 Mbits	4.1 Mbits	512 Kbytes	512 Kbytes	512 Kbytes	
	MAC Address Table	2000	4160	4160	8000	8000	8000	8000	
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention							
L2 Features	Jumbo Frame	9216 Bytes							
	Loop Protection	802.1D, 802.1w							
	802.3ad Link Aggregation	1 Group; 4 Ports per Group				2 Groups; 4 Ports per Group		8 Groups 8 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One							
	Loopback Detection	•							
Virtual LAN (VLAN)	Cable Diagnostics	•							
	VLANs	32 Static				128 Static			
	GVRP								
	Protocol VLAN (802.1v)								
	Double VLAN (Q-in-Q)								
Layer 2 Multicasting	Auto Voice VLAN	•							
	Auto Surveillance VLAN	•							
	Groups	32				64			
Quality of Service (QoS)	Protocols	IGMP Snooping v1 / v2 / v3 awareness							
	Standard	802.1p, DSCP							
	Number of Queues	4							
	Mode	Strict / WRR							
	CoS Handling	Switch Port							
Security	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 8 kbps)				Port-Based (Ingress/Egress, min. granularity 64 kbps)			
	STP Security								
	Port Security	•							
	DoS Attack Prevention					•			
	Storm Control	Broadcast / Multicast / Unicast							
	IP-MAC-Port Binding								
	DHCP Server Screening								
	ARP Spoofing Prevention								
Authentication, Authorisation and Accounting (AAA)	Traffic Segmentation	•							
	D-Link SafeGuard Engine					•			
Access Control Lists (ACL)	802.1x Authentication								
	ACL Handling								
Power over Ethernet	Standard	802.3af (PoE)		802.3af (PoE) 802.3at (PoE+)		802.3af (PoE) 802.3at (PoE+)		802.3af (PoE) 802.3at (PoE+)	
	PoE Ports	2		8				12	
	PoE Power Budget	PoE Passthrough: 18 W with 802.3at input 8 W with 802.3af input		64 W				100 W	
	Time-Based PoE	•							
Management	Switch Access	Web GUI							
	sFlow								
	SNMP	v1 / v2c							
	DHCP	Client							
	RMON								
	TFTP Client					•			
Physical and Environment	Syslog					•			
	Power Supply	Powered via PoE PD port		External		External or Powered via PoE PD port		Internal	
	Maximum Power Consumption	23.92 W	4.94 W	77.9 W	4.72 W	9.31 W	13.94 W	128.3 W	
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet							
	Operating Temperature	0°C to 40°C				-5°C to 50°C			
	Operating Humidity	0% to 90% RH Non-Condensing				0% to 95% RH Non-Condensing			
Dimensions (W x D x H)	150 x 97 x 28 mm	145 x 82 x 28 mm	171 x 97.8 x 28.6 mm	171 x 98 x 27.5 mm	280 x 180 x 44 mm	280 x 180 x 44 mm	280 x 230 x 44 mm		
Mean Time Between Failures (MTBF)	2,346,941 Hours	1,456,992 Hours	786,841 Hours	648,153 Hours	2,827,541 Hours	2,406,109 Hours	563,292 Hours		

# Layer 2 Lite Gigabit Ethernet PoE Smart Managed Switches

## DGS-1100MP/MPP Series

D-Link's DGS-1100MP/MPP Series are designed to meet the surveillance requirements of small, medium and enterprise businesses. Support for high-powered Pan/Tilt/Zoom (PTZ) cameras, an automatic Surveillance VLAN and 6KV surge protection make the DGS-1100MP/MPP Series ideal for IP surveillance deployments. A redesigned interface, a range of diagnostic and troubleshooting tools, as well as energy efficient technologies provide a flexible solution to your surveillance requirements. This series of switches feature 2 modes: Standard Mode and Surveillance Mode, allowing user to choose the interface that most suitable for their needs. The 6KV surge protection on PoE ports protects the switch from power surges and lightning strikes, maximizing the availability of the network. A surveillance overview, ONVIF device support and video traffic optimization greatly simplify the process of managing a surveillance network.



### Principle Product Features

#### DGS-1100-10MP

- 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-1100-10MPP

- 10/100/1000BASE-T PoE ports x 8
- SFP ports x 2
- 802.3af (PoE), 802.3at (PoE+) and 802.3bt draft (UPoE) support
- 242 W PoE power budget
- Port 1 - 6: Up to 30W
- Port 7 - 8: Up to 75W

#### DGS-1100-26MP

- 10/100/1000BASE-T PoE ports x 24
- 10/100/1000BASE-T / SFP Combo ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget

#### DGS-1100-26MPP

- 10/100/1000BASE-T PoE ports x 24
- 10/100/1000BASE-T / SFP Combo ports x 2
- 802.3af (PoE), 802.3at (PoE+) and 802.3bt draft (UPoE) support
- 518 W PoE power budget
- Port 1 - 20: Up to 30W
- Port 21 - 24: Up to 75W

### Optional Accessories

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

### Key Series Features

- Standard Mode and Surveillance Mode for configuration
- 6KV surge protection on all PoE ports
- Easy Management with Surveillance Overview, ONVIF Device Support, Video Traffic Optimization
- High PoE budgets and support for IEEE 802.3bt 75W PoE (DGS-1100MPP Series)
- Auto surveillance VLAN for easy integration with IP-based surveillance systems
- G.8032 ERPS helps achieve high reliability and network stability
- Quality of Service (QoS) and Bandwidth Control to ensure smooth operation
- Cable diagnostics function to help troubleshoot wiring problems
- Web-based GUI or Network Assistant utility
- 802.3az Energy Efficient Ethernet (EEE) compliant



### What does SFP mean?

SFP stands for Small Form-Factor Pluggable, and refers to the transceivers used to connect networking devices such as switches or routers to fibre-optic or copper cable in order to expand a data communications network, often over several kilometres. Generally speaking they are hot-pluggable, meaning that you do not need to power-off the device when plugging or unplugging the cable, and operate at up to Gigabit Ethernet speeds. For faster connections, Enhanced SFP, known as SFP+, offers rates of up to 10 Gbps.



MODEL		DGS-1100-10MP	DGS-1100-10MPP	DGS-1100-26MP	DGS-1100-26MPP
Interfaces	Gigabit Ethernet	8 (PoE)	8 (PoE)	24 (PoE)	24 (PoE)
	10/100/1000BASE-T/SFP Combo Slots			2	2
	SFP Slots	2	2		
General Features	Stackability				
	Stacking Speed				
	Switching Capacity	20 Gbps	20 Gbps	52 Gbps	52 Gbps
	Max Packet Forwarding Rate	14.88 Mpps	14.88 Mpps	38.69 Mpps	38.69 Mpps
	Packet Buffer Memory	1.5 MB			
	MAC Address Table	16,000			
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention			
L2 Features	Jumbo Frame	9216 Bytes			
	Loop Protection	802.1D, 802.1w, ERPS			
	802.3ad Link Aggregation	5 Groups; 8 Ports per Group		13 Groups; 8 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One			
	Loopback Detection	•			
Virtual LAN (VLAN)	Cable Diagnostics	•			
	VLANs	128 Static			
	GVRP				
	Protocol VLAN (802.1v)				
	Double VLAN (Q-in-Q)				
Layer 2 Multicasting	Auto Voice VLAN	•			
	Auto Surveillance VLAN	•			
Quality of Service (QoS)	Groups	64			
	Protocols	IGMP Snooping v1 / v2 / v3 awareness, MLD Snooping v1 / v2 awareness			
	Standard	802.1p			
	Number of Queues	8			
	Mode	Strict / WRR / DRR			
Security	CoS Handling	Switch Port			
	Bandwidth Control	Port-Based (Ingress min. granularity 8 kbps, Egress min. granularity 64kbps)			
	STP Security				
	Port Security				
	DoS Attack Prevention	•			
	Storm Control	Broadcast / Multicast / Unicast			
	IP-MAC-Port Binding				
	DHCP Server Screening				
Authentication, Authorisation and Accounting (AAA)	ARP Spoofing Prevention				
	Traffic Segmentation	•			
Access Control Lists (ACL)	D-Link SafeGuard Engine	•			
	802.1x Authentication				
Power over Ethernet	ACL Handling				
	Standard	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+) 802.3bt draft (UPoE)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+) 802.3bt draft (UPoE)
	PoE Ports	8	802.3af (PoE) & 802.3at (PoE+): 6 802.3bt draft (UPoE): 2	24	802.3af (PoE) & 802.3at (PoE+): 20 802.3bt draft (UPoE): 4
	PoE Power Budget	130 W	242 W	370 W	518 W
Management	Time-Based PoE	•			
	Switch Access	Web GUI			
	sFlow				
	SNMP	v1 / v2c			
	DHCP	Client			
	RMON				
Physical and Environment	TFTP Client	•			
	Syslog	•			
	Power Supply	Internal			
	Maximum Power Consumption	141.4W	253 W	387 W	539 W
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet			
	Operating Temperature	-5°C to 50°C			
Modules / Transceivers	Operating Humidity	0% to 95% RH Non-Condensing			
	Dimensions (W x D x H)	280 x 180 x 44 mm	280 x 180 x 44 mm	440 x 290 x 44 mm	440 x 290 x 44 mm
	Mean Time Between Failures (MTBF)	291,575 Hours	1719,951 Hours	269,291 Hours	268,289 Hours
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712			

# Layer 2 Lite 10 Gigabit Ethernet Smart Managed Switches

## DXS-1100 Series

The DXS-1100 Series provides an entry-level solution for Small and Medium Businesses wishing to deploy 10 Gigabit Ethernet. It is ideal for server farms or as a network aggregation device and provides a cost-effective but feature-rich solution to 10 Gigabit Ethernet requirements. The DXS-1100 Series is equipped with advanced security features such as Static MAC, Storm Control and IGMP Snooping. Static MAC allows users to create a MAC whitelist for specific ports, helping administrators limit network access to authorized devices only. Storm Control monitors broadcast, multicast, or unknown unicast traffic and will start blocking or discarding packets which could flood the network when the defined threshold is exceeded. IGMP Snooping is able to reduce the loading of L3 multicast routers and save bandwidth in network throughput. The DXS-1100 Series integrate basic configurable functions that provide performance and scalability with an easy-to-use web interface to help users deploy their network quickly and easily.



## Principle Product Features

### DXS-1100-10TS

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

### DXS-1100-16TC

- 10GBASE-T ports x 12
- 10 Gigabit SFP+ ports x 4
- 10GBASE-T/SFP+ Combo ports x 2

### DXS-1100-16SC

- 10 Gigabit SFP+ ports x 14
- 10GBASE-T/SFP+ Combo ports x 2

## Optional Accessories

### Optional 10 Gbps SFP+ Direct Attach Cables

DEM-CB1005	10 Gigabit SFP+ 1 m Direct Attach Cable
DEM-CB3005	10 Gigabit SFP+ 3 m Direct Attach Cable
DEM-CB7005	10 Gigabit SFP+ 7 m Direct Attach Cable

## Key Series Features

- Port Security
- D-Link Safeguard Engine
- ARP Spoofing Prevention
- 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



## What does Link Aggregation mean?

Link aggregation combines (aggregates) multiple network connections in parallel in order to increase throughput beyond what a single connection could sustain, and provides redundancy should one of the links fail. Combining can occur such that multiple interfaces share one logical address (IP) or one physical address (MAC address), or it allows each interface to have its own address. A logical connection requires that both ends of a link use the same aggregation method, but has performance advantages over the physical connection method.





MODEL		DXS-1100-10TS	DXS-1100-16TC	DXS-1100-16SC
Interfaces	10GBASE-T	8	12	
	10 Gigabit SFP+ Slots	2	2	14
	10GBASE-T/SFP+ Combo Slots		2	2
General Features	Stackability			
	Stacking Speed			
	Switching Capacity	200 Gbps	320 Gbps	320 Gbps
	Max Packet Forwarding Rate	148.801 Mpps	238.081 Mpps	238.096 Mpps
	Packet Buffer Memory	2 Mbps		
	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		
	802.3ad Link Aggregation	5 Groups, 4 Ports per Group	8 Groups, 8 Ports per Group	8 Groups, 8 Ports per Group
	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	•		
Layer 2 Multicasting	Auto Surveillance VLAN	•		
	Groups	512		
Quality of Service (QoS)	Protocols	IGMP Snooping v1 / v2 / v3 awareness, MLD Snooping v1 / v2 awareness		
	Standard	802.1p, DSCP		
	Number of Queues	8		
	Mode	Strict / WRR		
	CoS Handling	802.1p Priority		
Security	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 64 kbps)		
	STP Security	Root Restriction		
	Port Security	•		
	DoS Attack Prevention	•		
	Storm Control	Broadcast / Multicast / Unicast		
	IP-MAC-Port Binding			
	DHCP Server Screening			
	ARP Spoofing Prevention	•		
Authentication, Authorisation and Accounting (AAA)	D-Link SafeGuard Engine	•		
	802.1x Authentication			
Access Control Lists (ACL)	ACL Handling			
Management	Switch Access	Web GUI		
	sFlow			
	SNMP	v1 / v2c / v3		
	DHCP	Client		
	RMON	v1 / v2		
	TFTP Client	•		
	Syslog	•		
Physical and Environment	Power Supply	Internal		
	Maximum Power Consumption	50.9 W	84.1 W	60 W
	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)	441 x 210 x 44 mm	441 x 210 x 44 mm	441 x 250 x 44 mm
Modules / Transceivers	Mean Time Between Failures (MTBF)	585,959 Hours	489,221 Hours	254,038 Hours
	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 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.



## Principle Product Features

### DES-1210-08P

- 10/100BASE-TX PoE ports x 8
- 802.3af PoE support
- 72 W PoE power budget

### DES-1210-28

- 10/100BASE-TX ports x 24
- 10/100/1000BASE-T ports x 2
- 10/100/1000BASE-T/SFP Combo ports x 2

### DES-1210-28P

- 10/100BASE-TX PoE ports x 24
- 10/100/1000BASE-T ports x 2
- 10/100/1000BASE-T/SFP Combo ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 193 W PoE power budget
- Port 1 - 4: Up to 30W
- Port 5 - 24: Up to 15.4W

### DES-1210-52

- 10/100BASE-TX ports x 48
- 10/100/1000BASE-T ports x 2
- 10/100/1000BASE-T/SFP Combo ports x 2

## Optional Accessories

### Optional Management Software

DV-700 D-View 7 Network Management System

## Key Series Features

- Internet Group Management Protocol (IGMP) snooping
- 802.1Q tagged Virtual LAN (VLAN)
- Auto Surveillance VLAN (ASV)
- 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)



## 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...



MODEL		DES-1210-08P	DES-1210-28	DES-1210-28P	DES-1210-52
Interfaces	Fast Ethernet	8 (PoE)	24	24 (PoE)	48
	Gigabit Ethernet		2	2	2
	10/100/1000BASE-T/SFP Combo Slots		2	2	2
General Features	Stackability				
	Stacking Speed				
	Switching Capacity	1.6 Gbps	12.8 Gbps	12.8 Gbps	17.6 Gbps
	Max Packet Forwarding Rate	1.19 Mpps	9.5 Mpps	9.5 Mpps	13.1 Mpps
	Packet Buffer Memory	4.1 Mbits			13.1 Mbits
	MAC Address Table	8000	8000	8000	16000
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention			
L2 Features	Jumbo Frame	9000 Bytes			
	Loop Protection	802.1D, 802.1w			
	802.3ad Link Aggregation	4 Groups 8 Ports per Group	8 Groups 8 Ports per Group	8 Groups 8 Ports per Group	16 Groups 8 Ports per Group
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both			
	Loopback Detection	•			
Virtual LAN (VLAN)	Cable Diagnostics	•			
	VLANs	256 Static			
	GVRP				
	Protocol VLAN (802.1v)				
	Double VLAN (Q-in-Q)				
	Auto Voice VLAN	•			
Layer 2 Multicasting	Auto Surveillance VLAN	•			
	Groups	256			
	Protocols	IGMP Snooping v1 / v2 / v3 awareness, MLD Snooping v1 / v2			
Quality of Service (QoS)	Standard	802.1p, DSCP			
	Number of Queues	8			
	Mode	Strict / WRR			
	CoS Handling	802.1p Priority Queue, DSCP, ToS, TCP/UDP Port, IPv6 Traffic Class			
	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 64 kbps)			
Security	STP Security	Root Restriction			
	Port Security	•			
	DoS Attack Prevention	•			
	Storm Control	Broadcast / Multicast / Unicast			
	IP-MAC-Port Binding	Smart IP-MAC-Port Binding			
	DHCP Server Screening	•			
	ARP Spoofing Prevention	•			
	Traffic Segmentation	•			
Authentication, Authorisation and Accounting (AAA)	D-Link SafeGuard Engine	•			
	802.1x Authentication	Port-Based			
	Web-based Access Control (WAC)				
	MAC-based Access Control (MAC)				
	Network Access Protection (NAP)				
	Guest VLAN	•			
Access Control Lists (ACL)	Switch Access	RADIUS			
	Rules	Ingress ACL: 50 Profiles, 1280 Rules			
	ACL Handling	802.1p Priority, VLAN ID, MAC, IPv4/v6 Address, Ether Type, IPv6 Traffic Class, DSCP, LLC Mask, Protocol Type, TCP/UDP Port			
	Time-Based ACL				
Power over Ethernet	Standard	802.3af (PoE)		802.3af (PoE), 802.3at (PoE+)	
	PoE Ports	8		802.3af (PoE): 20 802.3at (PoE+): 4	
	PoE Power Budget	72 W		193 W	
	Time-Based PoE	•			
Management	Switch Access	Web GUI, Compact CLI, Telnet			
	sFlow				
	SNMP	v1 / v2c / v3			
	DHCP	Client			
	RMON	v1			
	TFTP Client	•			
	Syslog	•			
Physical and Environment	Power Supply	Internal			
	Maximum Power Consumption	84.9 W	9.46 W	240 W	14.77 W
	Power Saving Technology	Green Ethernet			
	Operating Temperature	-5°C to 45°C	-5°C to 50°C	-5°C to 50°C	-5°C to 50°C
	Operating Humidity	5% to 95% RH Non-Condensing			
	Dimensions (W x D x H)	190 x 120 x 38 mm	330 x 180 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm
Modules/ Transceivers	Mean Time Between Failures (MTBF)	656,745 Hours	330,182 Hours	244,140 Hours	429,482 Hours
	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			

# Layer 2 Gigabit Ethernet Smart Managed Switches

## DGS-1210 Series

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.

### 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)



dlinkgreen



### Principle Product Features

#### 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 (F1)

- 10/100/1000BASE-T ports x 24
- SFP ports x 2

#### DGS-1210-28 (F1)

- 10/100/1000BASE-T ports x 24
- 10/100/1000BASE-T/SFP Combo ports x 4

#### DGS-1210-28P (F1)

- 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 (F1)

- 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 (F1)

- 10/100/1000BASE-T ports x 48
- 10/100/1000BASE-T/SFP Combo ports x 4

#### DGS-1210-52MP (F1)

- 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

### Optional Accessories

#### Optional Management Software

DV-700 D-View 7 Network Management System





MODEL	DGS-1210-10 (F1)	DGS-1210-10MP (F1)	DGS-1210-10P (F1)	DGS-1210-20 (F1)	DGS-1210-26 (F1)	DGS-1210-28 (F1)	DGS-1210-28P (F1)	DGS-1210-28MP (F1)	DGS-1210-52 (F1)	DGS-1210-52MP (F1)	DGS-1210-52MP (E1)		
<b>Interfaces</b>	Gigabit Ethernet	8	8 (PoE)	8 (PoE)	16	24	24	24 (PoE)	24 (PoE)	48	48 (PoE)	48 (PoE)	
	10/100/1000BASE-T/SFP Combo Slots			4		4	4	4	4	4	4		
	SFP Slots	2	2	2		2						4	
<b>General Features</b>	Switching Capacity	20 Gbps	20 Gbps	20 Gbps	40 Gbps	52 Gbps	56 Gbps	56 Gbps	56 Gbps	104 Gbps	104 Gbps	104 Gbps	
	Max Packet Forwarding Rate	14.88 Mpps	14.88 Mpps	14.88 Mpps	29.8 Mpps	38.7 Mpps	41.7 Mpps	41.7 Mpps	41.7 Mpps	77.4 Mpps	77.4 Mpps	77.4 Mpps	
	Packet Buffer Memory	4.1 Mbits	4.1 Mbits	4.1 Mbits	4.1 Mbits	4.1 Mbits	4.1 Mbits	4.1 Mbits	4.1 Mbits	12 Mbits	12 Mbits	3 MB	
	MAC Address Table	8000										16,000	
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention											
<b>Layer 2 Features</b>	Loop Protection	802.1D, 802.1w, 802.1s										802.1D, 802.1w, 802.1s, ERPS	
	802.3ad Link Aggregation	8 Groups 8 Ports per Group	8 Groups 8 Ports per Group	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	4 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
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both											
	Loopback Detection	•											
	Cable Diagnostics	•											
<b>Layer 3 Features</b>	ARP	•	•	•	•	•	•	•	•	•	•	•	
	IP Interfaces	4	4	4	4	4	4	4	4	4	4	1	
	Default Routing	•	•	•	•	•	•	•	•	•	•	•	
	Static Routing	Max 124 IPv4 Entries, Max 50 IPv6 Entries										Max 64 IPv4 Entries, Max 32 IPv6 Entries	
<b>Virtual LAN (VLAN)</b>	VLANs	256 Static											
	Auto Voice VLAN	•											
	Auto Surveillance VLAN	•											
<b>Layer 2 Multicasting</b>	Groups	256											
	Protocols	IGMP Snooping v1/ v2 / v3 awareness, MLD Snooping v1 / v2 awareness										IGMP Snooping v1/ v2 / v3 awareness, MLD Snooping v1 / v2	
<b>Quality of Service (QoS)</b>	Standard	802.1p, DSCP											
	Number of Queues	8											
	Mode	Strict / WRR											
	CoS Handling	802.1p Priority Queue, MAC Address, Ether Type, IP Address, Protocol Type, DSCP, ToS, IP Preference, IPv6 Traffic Class, TCP/UDP Port										802.1p Priority Queue, DSCP, ToS, IPv6 Traffic Class, TCP/UDP Port	
	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 16 kbps)										Port-Based (Ingress/Egress, min. granularity 64 kbps)	
<b>Security</b>	STP Security	Root Restriction											
	Port Security	•											
	DoS Attack Prevention	•											
	Storm Control	Broadcast / Multicast / Unicast											
	IP-MAC-Port Binding	Smart IP-MAC-Port Binding											
	DHCP Server Screening	•											
	ARP Spoofing Prevention	•											
	Traffic Segmentation	•											
<b>Authentication, Authorisation and Accounting (AAA)</b>	D-Link SafeGuard Engine	•											
	802.1x Authentication	Port-Based											
<b>Access Control Lists (ACL)</b>	Switch Access	RADIUS											
	Rules	Ingress ACL: 50 Profiles, 768 Rules											
<b>Power over Ethernet</b>	ACL Handling	802.1p Priority, VLAN ID, MAC, IP Address, Ether Type, IPv6 Traffic Class, DSCP, Protocol Type, TCP/UDP Port											
	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	8					24	24		48	48
	PoE Power Budget		130 W	65 W					193 W	370 W		370 W	740 W
	Time-Based PoE		•	•					•	•		•	•
<b>Management</b>	Switch Access	Web GUI, Compact CLI, Telnet											
	SNMP	v1 / v2c / v3											
	DHCP	Client											
	RMON	v1											
	TFTP Client	•											
	Syslog	•											
<b>Physical and Environment</b>	Power Supply	Internal	Internal	External	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	
	Maximum Power Consumption	6.33 W	148.7 W	80.6 W	13.02 W	15.11 W	16.94 W	24.74 W	42.8 W	34.2 W	45.1 W	96.5 W	
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet											
	Mean Time Between Failures (MTBF)	1,380,058 Hours	1,274,005 Hours	729,258 Hours	1,087,100 Hours	1,082,534 Hours	992,594 Hours	469,262 Hours	277,967 Hours	400,667 Hours	236,406 Hours	350,728 Hours	
	Operating Temperature	-5°C to 50°C											
	Operating Humidity	0% to 95% RH Non-Condensing											
<b>Modules/ Transceivers</b>	Dimensions (W x D x H)	280 x 126 x 44 mm	330 x 180 x 44 mm	280 x 180 x 44 mm	280 x 180 x 44 mm	440 x 140 x 44 mm	440 x 140 x 44 mm	440 x 250 x 44 mm	440 x 250 x 44 mm	440 x 210 x 44 mm	440 x 430 x 44 mm	440 x 430 x 44 mm	
	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											

# Layer 2 Gigabit Industrial Smart Managed Switches

## DIS-200G Series

The first in D-Link Ethernet Switching Family, the DIS-200G Series feature a robust design, making them ideal for deployment in industrial and outdoor surveillance settings, capable of withstanding the harshest environments. The switches are housed in a highly resistant IP30-rated metal casing, along with the high electromagnetic compatibility (EMC) to protect it from unwanted effects when operating in environments with strong electromagnetic interference. The fanless design extends the lifetime of the switch, while also being able to operate in a wider temperature range, which is up to 75 °C. For increased flexibility, the DIS-200G Series can be mounted on a DIN rail, wall mounted, or be installed in a equipment rack. The DIS-200G Series also integrate advanced management and security functions to provide a complete Layer 2 solution.



### Principle Product Features

#### DIS-200G-12S

- 10/100/1000BASE-T ports x 10
- SFP ports x 2
- Operating Temperature: -40 to 65 °C
- IP30-rated Metal Casing

#### DIS-200G-12SW

- 10/100/1000BASE-T ports x 10
- SFP ports x 2
- Operating Temperature: -40 to 75 °C
- IP30-rated Metal Casing

#### 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
- 130 W PoE power budget
- Operating Temperature: -40 to 65 °C
- IP30-rated Metal Casing

#### 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
- 130 W PoE power budget
- Operating Temperature: -40 to 75 °C
- IP30-rated Metal Casing

### Optional Accessories

#### Optional Rack-mount Kit & Redundant Power Supply

DIS-200G-RPK40	19" Rack-mount Kit + 40W Power Adapter, 100~240VAC Input, 12VDC Output with 60 °C Operating Temperature (For Use With DIS-200G-12S/12SW)
DIS-200G-RPK180	19" Rack-mount Kit + 180W Power Adapter, 100~240VAC Input, 54VDC Output with 60 °C Operating Temperature (For Use With DIS-200G-12PS/12PSW)
DIS-PWR40AC	40W Power Adapter, 100~240VAC Input, 12VDC Output with 60 °C Operating Temperature (For Use With DIS-200G-12S/12SW)
DIS-PWR180AC	180W Power Adapter, 100~240VAC Input, 54VDC Output with 60 °C Operating Temperature (For Use With DIS-200G-12PS/12PSW)
DIS-RK200G	Standard 19" Rack-mount Kit (For Use With DIS-200G Series)

### Key Series Features

- High EMC Endurance
- Fanless Design
- 6kV Surge Protection On Copper Ports
- Dual Power Input for Redundant Power Supplies
- RJ-45 Console Port
- Internet Group Management Protocol (IGMP) snooping
- Multicast Listener Discovery (MLD) snooping
- Ethernet Ring Protection Switching (ERPS)\*
- Quality of Service (QoS)
- Broadcast/multicast/unicast storm control
- Traffic segmentation
- D-Link SafeGuard Engine
- DoS attack prevention





MODEL		DIS-200G-12S	DIS-200G-12SW	DIS-200G-12PS	DIS-200G-12PSW
Interfaces	Gigabit Ethernet	10	10	8 (PoE) + 2	8 (PoE) + 2
	SFP Slots	2	2	2	2
General Features	Stackability				
	Stacking Speed				
	Switching Capacity	24 Gbps	24 Gbps	24 Gbps	24 Gbps
	Max Packet Forwarding Rate	17.85 Mpps	17.85 Mpps	17.85 Mpps	17.85 Mpps
	Packet Buffer Memory	4 Mbits			
	MAC Address Table	8,000			
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention			
L2 Features	Jumbo Frame	9600 Bytes			
	Loop Protection	802.1D, 802.1w, 802.1s, ERPS*			
	802.3ad Link Aggregation	6 Groups; 8 Ports per Group			
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx			
	Loopback Detection	•			
Virtual LAN (VLAN)	Cable Diagnostics	•			
	VLANs	128 Static			
	GVRP	•*			
	Protocol VLAN (802.1v)				
	Double VLAN (Q-in-Q)				
	Auto Voice VLAN	•			
Layer 2 Multicasting	Auto Surveillance VLAN	•*			
	Groups	64			
Quality of Service (QoS)	Protocols	IGMP Snooping v1 / v2 / v3*, MLD Snooping v1 / v2*			
	Standard	802.1p			
	Number of Queues	4			
	Mode	Strict / WRR			
	CoS Handling	Switch Port, 802.1p Priority			
Security	Bandwidth Control	Port-Based (Ingress min. granularity 8 kbps, Egress min. granularity 64 kbps)			
	STP Security				
	Port Security	•			
	DoS Attack Prevention	•			
	Storm Control	Broadcast / Multicast / Unicast			
	IP-MAC-Port Binding	Smart IP-MAC-Port Binding			
	DHCP Server Screening				
	ARP Spoofing Prevention				
Authentication, Authorisation and Accounting (AAA)	Traffic Segmentation	•			
	D-Link SafeGuard Engine	•			
Access Control Lists (ACL)	802.1x Authentication	•*			
	ACL Handling				
Power over Ethernet	Standard			802.3af (PoE)	802.3af (PoE)
	PoE Ports			802.3at (PoE+)	802.3at (PoE+)
	PoE Power Budget			8	8
	Time-Based PoE			130 W	130 W
Management	Switch Access	Web GUI, CLI, Telnet, Console			
	sFlow				
	SNMP	v1 / v2c / v3*			
	DHCP	Client			
	RMON				
	TFTP Client	•			
Physical and Environment	Syslog	•			
	Power Supply	External			
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet			
	Operating Temperature	-40°C to 65°C	-40°C to 75°C	-40°C to 65°C	-40°C to 75°C
Modules / Transceivers	Operating Humidity	0% to 95% RH Non-Condensing			
	Dimensions (W x D x H)	210 x 171.2 x 48 mm			
	SFP Transceivers	DEM-310GT, DIS-S310LX, DEM-311GT, DIS-S301SX, DEM-312GT2, DIS-S302SX, DEM-314GT, DIS-S350LHX			

\*Future Firmware Upgradable

# Layer 2 Lite 2.5 Gigabit Ethernet Smart Managed Switches

## DMS-1100 Series

The DMS-1100 Series is the latest in D-Link Layer 2 Lite Smart Managed Switches Family. This 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
- 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

### Principle Product Features

#### 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.





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	•	
Virtual LAN (VLAN)	Cable Diagnostics	•	
	VLANs	128 Static	
	GVRP		
	Protocol VLAN (802.1v)		
	Double VLAN (Q-in-Q)		
Layer 2 Multicasting	Auto Voice VLAN	•	
	Auto Surveillance VLAN	•	
Quality of Service (QoS)	Groups	TBA	
	Protocols	IGMP Snooping v1 / v2 / v3, MLD Snooping v1 / v2	
	Standard	802.1p	
	Number of Queues	8	
	Mode	Strict / WRR / DRR	
Security	CoS Handling	Switch Port	
	Bandwidth Control	Port-Based (Ingress/Egress)	
	STP Security		
	Port Security		
	DoS Attack Prevention	•	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding		
	DHCP Server Screening		
Authentication, Authorisation and Accounting (AAA)	ARP Spoofing Prevention		
	D-Link SafeGuard Engine	•	
Power Over Ethernet	802.1x Authentication		
	Standard		802.3af (PoE) 802.3at (PoE+)
	PoE Ports		8
	PoE Power Budget		240 W
Access Control Lists (ACL)	Time-based PoE		•
	ACL Handling		
Management	Switch Access	Web GUI	
	sFlow		
	SNMP	v1 / v2c	
	DHCP	Client	
	RMON		
	TFTP Client	•	
	Syslog	•	
Modules / Transceivers	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
	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 10 Gigabit Ethernet 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 Series can fulfil the needs for virtualisation, cloud services and server-to-server applications making it perfect for SMB customers. They provide a more flexible solution for upstream or downstream server connections, making network administration easy.

Equipped with a complete line-up of L2 features, the DXS-1210 Series includes port mirroring, Spanning Tree Protocol and Link Aggregation Control Protocol (LACP). Network maintenance features include loopback detection and cable diagnostics. In addition, with bandwidth control, network administrators can reserve bandwidth for important functions that require larger bandwidth or might have high priority.



### Principle Product Features

#### DXS-1210-10TS

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

#### DXS-1210-12TC

- 10GBASE-T ports x 8
- 10 Gigabit SFP+ ports x 2
- 10GBASE-T/SFP+ Combo ports x 2

#### DXS-1210-12SC

- 10 Gigabit SFP+ ports x 10
- 10GBASE-T/SFP+ Combo ports x 2

#### DXS-1210-16TC

- 10GBASE-T ports x 12
- 10 Gigabit SFP+ ports x 2
- 10GBASE-T/SFP+ Combo ports x 2

### Optional Products

#### Optional 10 Gbps SFP+ Direct Attach Cables

DEM-CB1005	10 Gigabit SFP+ 1 m Direct Attach Cable
DEM-CB3005	10 Gigabit SFP+ 3 m Direct Attach Cable
DEM-CB7005	10 Gigabit SFP+ 7 m Direct Attach Cable

### Key Series Features

- 10 Gigabit Ethernet over standard CAT6 twisted-pair cables
- D-Link Green technology conserves energy by powering down unused ports, saving you money while reducing your carbon footprint
- Access Control List
- IP-MAC-Port Binding\*
- MAC/Web access control
- D-Link Safeguard Engine
- Port Security
- ARP Spoofing Prevention\*
- D-Link Network Assistant Utility or Web-based GUI
- Compact CLI through Telnet
- Auto Surveillance VLAN
- Loopback Detection
- Cable Diagnostics
- Static Route
- LLDP/LLDP-MED
- Auto Voice VLAN



### What is 10GBASE-T?

10GBASE-T is a IEEE standard that allows 10 Gigabit connectivity using standard CAT6 (or above) network cables. It allows you to create a 10 Gigabit network without the cost of adding expensive fibre transceivers and cables, using existing cabling structure. It gives businesses a simple and easy migration to 10 Gigabit Ethernet.



MODEL		DXS-1210-10TS	DXS-1210-12TC	DXS-1210-12SC	DXS-1210-16TC
Interfaces	10GBASE-T	8	8		12
	10 Gigabit SFP+ Slots	2	2	10	2
	10GBASE-T/SFP+ Combo Slots		2	2	2
General Features	Stackability				
	Stacking Speed				
	Switching Capacity	200 Gbps	240 Gbps	240 Gbps	320 Gbps
	Max Packet Forwarding Rate	148.8 Mpps	178.56 Mpps	178.56 Mpps	238.08 Mpps
	Packet Buffer Memory	2 MB			
	MAC Address Table	16,000			
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention			
	Jumbo Frame	9000 Bytes			
	Layer 2 Features	Loop Protection	802.1D, 802.1w, 802.1s, ERPS		
802.3ad Link Aggregation		Max 8 Groups per Device, 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	768 Static ARP			
	IP Interfaces	8			
	Default Routing	•			
	Static Routing	Max. 64 IPv4 entries, 64 IPv6 entries			
Virtual LAN (VLAN)	VLANs	4096 Static			
	GVRP*	4096 Dynamic			
	Subnet-based VLAN				
	Double VLAN (Q-in-Q)				
	Port-based VLAN	•			
	MAC-based VLAN				
Layer 2 Multicasting	Groups	384			
	Protocols	IGMP Snooping v1 / v2 / v3 awareness, MLD Snooping v1 / v2 awareness			
	Standard	802.1p, DSCP			
	Number of Queues	8			
	Mode	Strict / WRR / DRR / WDRR / Strict + WDRR			
Quality of Service (QoS)	CoS Handling	802.1p Priority Queues, DSCP, ToS, IPv6 Traffic Class, TCP/UDP port, VLAN ID, MAC, Ether Type, IP Address, Protocol Type, IPv6 Flow Label			
	Bandwidth Control	Port-based (Ingress/Egress, min. granularity 64 kbps) iSCSI Awareness*			
	STP Security	BPDU Filtering, Root Restriction			
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/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			
	Guest VLAN	•			
Access Control Lists (ACL)	Switch Access*	RADIUS / TACACS+			
	Rules	Max 50 access list, Ingress ACL: 256 rules			
	ACL Handling	802.1p priority, VLAN*, MAC address, Ether type, IP address, DSCP, Protocol type, TCP/UDP port number, IPv6 Traffic Class, IPv6 flow label			
Management	Time-Based ACL				
	Switch Access	Web GUI, Telnet			
	Command Line Interface (CLI)	Compact CLI			
	sFlow				
	SNMP	v1 / v2c / v3			
	DHCP	Client, Relay*			
	RMON	v1 / v2*			
Physical and Environment	TFTP Client	•			
	Syslog	•			
	Power Supply	Internal			
	Maximum Power Consumption	68.67 W	90.81 W	43.81 W	90.81 W
	Power Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet			
	Operating Temperature	-5°C to 50°C			
Modules / Transceivers	Operating Humidity	0% to 95% RH Non-Condensing			
	Dimensions (W x D x H)	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm
	Mean Time Between Failures (MTBF)	284,314 Hours	217,863 Hours	252,724 Hours	217,863 Hours
	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				

\*Feature available in future firmware upgrade



# Layer 3 Lite Gigabit Stackable Smart Managed Switches

## DGS-1510 Series

With up to 48 1000BASE-T ports, two Gigabit SFP ports and two 10 Gigabit SFP+ ports or four 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/28XMP/52XMP are your perfect partner for powering VoIP phones, wireless access points or network cameras, thanks to the 24/48 Power over Ethernet-enabled ports that can support up to 193 W / 370 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. The wired-speed inter-VLAN routing also helps by reducing the pressure of routers and backbone networks, improving the overall network efficiency.



### Principle Product Features

#### DGS-1510-20

- 10/100/1000BASE-T ports x 16
- SFP ports x 2
- 10 Gigabit SFP+ ports x 2

#### DGS-1510-28X

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

#### 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

#### DGS-1510-28XMP

- 10/100/1000BASE-T PoE ports x 24
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget

#### DGS-1510-52X

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

#### DGS-1510-52XMP

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

### Key Series Features

- 10 Gigabit connectivity
- Physical stacking via two 10 Gigabit SFP+ ports, with stacking for up to six devices
- Single IP management (virtual stacking of up to 32 units)
- Layer 3 Static routing
- IPv6 management support
- Auto surveillance VLAN
- Auto voice VLAN
- Loopback Detection (LBD)
- 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 web-based GUI
- Built-in SNMP MIB for remote NMS (D-View 7)
- Full CLI via console port
- IPv4/IPv6 stack
- Dual images
- IEEE 802.3az Energy Efficient Ethernet
- D-Link Green™ 3.0 power-saving features

### 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

#### Optional Management Software

DV-700	D-View 7 Network Management System
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#### Optional Redundant Power Supply

DPS-700	589W Redundant Power Supply for DGS-1510-52XMP
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MODEL		DGS-1510-20	DGS-1510-28P	DGS-1510-28X	DGS-1510-28XMP	DGS-1510-52X	DGS-1510-52XMP
Interfaces	Gigabit Ethernet	16	24 (PoE)	24	24 (PoE)	48	48 (PoE)
	SFP Slots	2	2				
	10 Gigabit SFP+ Slots	2	2	4	4	4	4
General Features	Stackability	Virtual Stacking of up to 32 units; Physical Stacking of up to 6 units					
	Stacking Speed	Up to 20 Gbps Full Duplex					
	Switching Capacity	76 Gbps	92 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps
	Max Packet Forwarding Rate	56.54 Mpps	68.45 Mpps	95.24 Mpps	95.24 Mpps	130.95 Mpps	130.95 Mpps
	Packet Buffer Memory	1.5 MB	1.5 MB	1.5 MB	1.5 MB	3 MB	3 MB
	MAC Address Table	16,000					
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention					
Layer 2 Features	Jumbo Frame	9216 Bytes					
	Loop Protection	802.1D, 802.1w, 802.1s, ERPS					
	802.3ad Link Aggregation	32 Groups, 8 Ports per Group					
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, Flow-based (ACL) Mirroring					
	Loopback Detection	•					
Layer 3 Features	Cable Diagnostics	•					
	ARP	256 Static ARP					
	IP Interfaces	16					
	Default Routing	•					
Virtual LAN (VLAN)	Static Routing	Max. 64 IPv4 entries, 32 IPv6 entries					
	VLANs	4094 Static					
	GVRP	4094 Dynamic					
Layer 2 Multicasting	Protocol VLAN (802.1v)	•					
	Groups	512					
Quality of Service (QoS)	Protocols	IGMP Snooping v1 / v2 / v3 awareness, MLD Snooping v1/ v2 awareness					
	Standard	802.1p, DSCP					
	Number of Queues	8					
	Mode	Strict / WRR / DRR / Strict + WRR					
	CoS Handling	802.1p Priority Queues, VLAN ID, MAC, IP Address, Ether Type, IPv6 Traffic Class, IPv6 Flow Label, DSCP, Protocol Type, TCP/UDP Port					
Security	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 64 kbps)					
	STP Security	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					
	Guest VLAN	•					
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 3-Level User Account					
	Rules	Max 256 Access List, 768 Rules					
	ACL Handling	802.1p Priority, VLAN ID, MAC, IP Address, Ether Type, IPv6 Traffic Class, IPv6 Flow Label, DSCP, Protocol Type, TCP/UDP Port					
Power over Ethernet	Time-Based ACL	•					
	Standard		802.3af (PoE) 802.3at (PoE+)		802.3af (PoE) 802.3at (PoE+)		802.3af (PoE) 802.3at (PoE+)
	PoE Ports		24		24		48
	PoE Power Budget		193 W		370 W		370 W (740W with DPS-700 RPS)
Management	Time-Based PoE		•		•		•
	Switch Access	Web GUI, CLI, Telnet, Console					
	sFlow	•					
	SNMP	v1 / v2c / v3					
	DHCP	Client, Relay					
	RMON	v1					
	TFTP Client	•					
Syslog	•						
Physical and Environment	Power Supply	Internal					
	Maximum Power Consumption	20.3 W	238.7 W	22.3 W	436.3 W	44.2 W	486.9 W
	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					
Modules/ Transceivers	Dimensions (W x D x H)	280 x 180 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 308 x 44 mm	440 x 250 x 44 mm	440 x 308.5 x 44 mm
	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 Ethernet Managed Switches

## DGS-3000 Series

The DGS-3000 Series of Gigabit Ethernet switches provide more models with 10Gbps SFP+ port connectivity that is able to suit different business needs. It provides a reliable, scalable, and modular interconnection between core switches and edge switches with rich capabilities and simplified flexibility. Switches in this series are equipped with Ethernet ports, fully industrial-like manageability and implements the latest IEEE 802.3az EEE standard to save power. This series is also designed with 6kV surge protection on all Ethernet ports. The support of Ethernet Ring Protection Switching and Redundant Power Supply also maximize service availability and increase uptime.



### Principle Product Features

#### DGS-3000-10L

- 10/100/1000BASE-T ports x 8
- SFP ports x 2

#### DGS-3000-20L

- 10/100/1000BASE-T ports x 16
- SFP ports x 4

#### DGS-3000-28L

- 10/100/1000BASE-T ports x 24
- SFP ports x 4

#### DGS-3000-28LP

- 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-3000-28X

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

#### DGS-3000-28XS

- SFP ports x 24
- 10 Gigabit SFP+ ports x 4

#### DGS-3000-28XMP

- 10/100/1000BASE-T PoE ports x 24
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget

#### DGS-3000-52L

- 10/100/1000BASE-T ports x 48
- SFP ports x 4

#### DGS-3000-52X

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

### Optional Accessories

#### Optional Redundant Power Supply & Cable

DPS-500A	140 W Redundant Power Supply (Alternating Current)
DPS-CB150-2PS v.B1	The RPS cable for connecting the DGS-3000 with DPS-500A/500DC

#### Optional 10 Gbps SFP+ Direct Attach Cables (For DGS-3000-28X/ 28XMP/ 28XS/ 52X only)

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

### Key Series Features

- Virtual stacking; up to 32 units per virtual stack managed through a single IP address\*
- 16,000 MAC address tables
- IEEE 802.3x flow control, HOL blocking prevention flow control
- 10 Gigabit Connectivity eliminate network bottlenecks
- 6kV Surge Protection on all Ethernet Ports
- Ethernet Ring Protection Switching (ERPS)\*
- Supports Redundant Power Supply option
- ISM VLAN (Multicast VLAN)\*
- Dying Gasp
- Port-based Q-in-Q
- IP-MAC-Port Binding\*
- Guest VLAN\*
- 802.1ag CFM
- 802.3ah Ethernet Link OAM

\* Future Firmware Upgradable





MODEL		DGS-3000-10L	DGS-3000-20L	DGS-3000-28L	DGS-3000-28LP	DGS-3000-28X	DGS-3000-28XS	DGS-3000-28XMP	DGS-3000-52L	DGS-3000-52X	
Interfaces	Gigabit Ethernet	8	16	24	24 (PoE)	24		24 (PoE)	48	48	
	SFP Slots	2	4	4	4		24		4		
	10 Gigabit SFP+ Slots					4	4	4		4	
General Features	Stackability	Virtual Stacking of up to 32 Units*									
	Stacking Speed										
	Switching Capacity	20 Gbps	40 Gbps	56 Gbps	56 Gbps	128 Gbps	128 Gbps	128 Gbps	104 Gbps	176 Gbps	
	Max Packet Forwarding Rate	14.88 Mpps	29.76 Mpps	68.45 Mpps	68.45 Mpps	95.24 Mpps	95.24 Mpps	95.24 Mpps	104.16 Mpps	130.95 Mpps	
	Packet Buffer Memory	1.5 MB								3.0 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	5 Groups, 8 Gigabit Ports per Group		10 Groups, 8 Gigabit Ports per Group		14 Groups, 8 Gigabit Ports per Group			26 Groups, 8 Gigabit Ports per Group		
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, Flow-Based (ACL) Mirroring									
	Loopback Detection	•									
	Cable Diagnostics	•									
Layer 3 Features	ARP	255 Static ARP									
	IP Interfaces	16									
	Default Routing	•									
Virtual LAN (VLAN)	Static Routing*	Max. 64 IPv4 entries, 32 IPv6 entries									
	VLANs	4094 Static									
	GVRP	255 Dynamic									
	Protocol VLAN (802.1v)	•									
	Double VLAN (Q-in-Q)	Port-Based									
Layer 2 Multicasting	MAC-Based VLAN	•									
	Groups	1024									
Quality of Service (QoS)	Protocols	IGMP Snooping v1/ v2 / v3 awareness, MLD Snooping v1/ v2 awareness									
	Standard	802.1p, DSCP									
	No. of Queues	8									
	Mode	Strict / WRR / Strict + WRR									
	CoS Handling	Switch Port, 802.1p Priority Queues, VLAN ID, MAC, Ether Type, IPv4/v6 Address, DSCP, ToS, Protocol Type, TCP/UDP Port, IPv6 Traffic Class, IPv6 Flow Label, User-Defined Packet Content									
Security	Bandwidth Control	Port-Based (Ingress, min. granularity 64 kbps), Flow-Based (Ingress, min. granularity 64 kbps), Egress Queue Bandwidth Control (min. granularity 64 kbps)									
	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 Assignment									
	Web-Based Access Control (WAC)										
	Mac-Based Access Control (MAC)	Port-Based, Host Based, Dynamic VLAN Assignment									
	Network Access Protection (NAP)*	802.1x NAP, DHCP NAP									
	Guest VLAN	•*									
Access Control List (ACL)	Switch Access	RADIUS / TACACS+, 4-Level User Account									
	Rules	Up to 1024 Ingress Access Rules									
	ACL Handling	Switch Port, VLAN ID, 802.1p Priority, MAC, IPv4/v6 Address, Ether Type, DSCP, ToS, TCP/UDP Port, Protocol Type, IPv6 Traffic Class, IPv6 Flow Label, User-Defined Packet Content									
Power Over Ethernet	Time-Based ACL	•									
	Standard					802.3af (PoE) 802.3at (PoE+)					
	PoE Ports					24					
	PoE Power Budget					193 W		370 W			
Management	Time-Based PoE	•									
	Switch Access	Web GUI, CLI, Telnet, Console									
	sFlow										
	SNMP	v1 / v2c / v3									
	DHCP	Client, Relay*									
	RMON	v1 / v2									
	TFTP Client	•									
Syslog	•										
Physical and Environment	Power Supply	Internal with RPS Option									
	Maximum Power Consumption	13.6 W	15.6 W	17.6 W	246.5 W	22.1 W	53.4 W	445.2 W	39 W	40.7 W	
	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)	280 x 140 x 44 mm	280 x 140 x 44 mm	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	440 x 210 x 44 mm	440 x 210 x 44 mm	
Modules/ Transceivers	Mean Time Between Failures (MTBF)	841,608 Hours	762,952 Hours	635,099 Hours	304,565 Hours	652,062 Hours	574,974 Hours	268,693 Hours	501,290 Hours	465,240 Hours	
	10 Gigabit SFP+ Transceivers (For DGS-3000-28X/28XS/28XMP/52X only)	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-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712									

\* Future Firmware Upgradable



# xStack Layer 2/3 Gigabit Stackable Managed Switches

## DGS-3120 Series

The DGS-3120 Series is an enhanced Layer 2/3 stackable managed solution designed to connect end-users in a secure SMB or enterprise network, so is perfect for businesses that require a high level of network security and maximum uptime. Its comprehensive security features and PoE support make it suitable for any business environment where manageability, reliability and high port densities are necessary at an affordable price. Each of the five switch models in this series is embedded with three different software images – Standard Image (SI), the optional Enhanced Image (EI) and the optional Routed Image (RI). The Standard Image provides sophisticated features for campus or enterprise usage. It includes advanced Quality of Service (QoS), traffic shaping, L2 multicasting, robust security features and IPv6 features which are suitable for next-generation IPv6 networks or triple play applications over Metro Ethernet. The Enhanced Image supports ERPS, Double VLAN (Q-in-Q), Ethernet OAM, Static Route, IMPB and sFlow. The Routed Image supports DHCP Server, VRRP, IPv6 Tunneling, RIP, OSPF, MLD, PIM and DVMRPv3. With enhanced network reliability and comprehensive security, as well as proactive and effective network management and future-proof IPv6 support, the DGS-3120 Series is designed to scale as your network requirement grows.



### Principle Product Features

#### DGS-3120-24TC

- 10/100/1000BASE-T ports x 20
- 10/100/1000BASE-T/SFP Combo ports x 4
- 10 Gigabit CX4 Stacking ports x 2

#### DGS-3120-24SC

- SFP ports x 16
- 10/100/1000BASE-T/SFP Combo ports x 8
- 10 Gigabit CX4 Stacking ports x 2

#### DGS-3120-24PC

- 10/100/1000BASE-T PoE ports x 20
- 10/100/1000BASE-T PoE /SFP Combo ports x 4
- 10 Gigabit CX4 Stacking ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget (760 W with DPS-700 RPS)

#### DGS-3120-48TC

- 10/100/1000BASE-T ports x 44
- 10/100/1000BASE-T/SFP Combo ports x 4
- 10 Gigabit CX4 Stacking ports x 2

#### DGS-3120-48PC

- 10/100/1000BASE-T PoE ports x 44
- 10/100/1000BASE-T PoE /SFP Combo ports x 4
- 10 Gigabit CX4 Stacking ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget (760 W with DPS-700 RPS)

### Optional Accessories

#### Optional Software Image Upgrade Licenses

DGS-3120-24TC-SE-LIC	DGS-3120-24TC Standard to Enhanced Image Upgrade License
DGS-3120-24SC-SE-LIC	DGS-3120-24SC Standard to Enhanced Image Upgrade License
DGS-3120-24PC-SE-LIC	DGS-3120-24PC Standard to Enhanced Image Upgrade License
DGS-3120-48TC-SE-LIC	DGS-3120-48TC Standard to Enhanced Image Upgrade License
DGS-3120-48PC-SE-LIC	DGS-3120-48PC Standard to Enhanced Image Upgrade License
DGS-3120-24TC-ER-LIC	DGS-3120-24TC Enhanced to Routed Image Upgrade License
DGS-3120-24SC-ER-LIC	DGS-3120-24SC Enhanced to Routed Image Upgrade License
DGS-3120-24PC-ER-LIC	DGS-3120-24PC Enhanced to Routed Image Upgrade License
DGS-3120-48TC-ER-LIC	DGS-3120-48TC Enhanced to Routed Image Upgrade License
DGS-3120-48PC-ER-LIC	DGS-3120-48PC Enhanced to Routed Image Upgrade License
DGS-3120-24TC-SR-LIC	DGS-3120-24TC Standard to Routed Image Upgrade License
DGS-3120-24SC-SR-LIC	DGS-3120-24SC Standard to Routed Image Upgrade License
DGS-3120-24PC-SR-LIC	DGS-3120-24PC Standard to Routed Image Upgrade License
DGS-3120-48TC-SR-LIC	DGS-3120-48TC Standard to Routed Image Upgrade License
DGS-3120-48PC-SR-LIC	DGS-3120-48PC Standard to Routed Image Upgrade License

#### Optional Redundant Power Supplies

DPS-200A	60 W Redundant Power Supply for DGS-3120-24TC and DGS-3120-24SC
DPS-500A	140 W AC Redundant Power Supply for DGS-3120-48TC
DPS-700	589 W Redundant Power Supply For DGS-3120-24PC and DGS-3120-48PC

#### Optional Management Software

DV-700	D-View 7 Network Management System
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#### Optional 10Gbps Stacking and Interconnect Cables

DEM-CB50	50 cm Stacking Cable
DEM-CB100	100 cm Stacking Cable
DEM-CB300	300 cm Stacking Cable
DEM-CB50ICX	50 cm Interconnect Cable for connecting with CX4 Devices

### Key Series Features

- Built-in 2 x 10 Gigabit CX4 stacking ports#
- 40 Gigabit stacking bandwidth
- Stackable up to six physical units
- PoE/PoE+ versions available
- Optional redundant power supply
- Smart fans
- 19in, 1U rack-mountable
- Comprehensive security
- IPv6 ready
- Supports Microsoft NAP
- sFlow
- SD Card slot for configuration backup
- Easy to configure through web interface
- Power-saving technology

XSTACK

dlinkgreen



Energy Efficient Ethernet

# Physical Stacking Only Supported in Standard Image (SI) and Enhanced Image (EI).



MODEL		DGS-3120-24TC	DGS-3120-24PC	DGS-3120-24SC	DGS-3120-48TC	DGS-3120-48PC
<b>Interfaces</b>	Fast Ethernet					
	Gigabit Ethernet	20	20 (PoE)		44	44 (PoE)
	SFP Slots			16		
	10/100/1000BASE-T/SFP Combo Slots	4	4 (PoE)	8	4	4 (PoE)
	10 Gigabit SFP+ Slots					
<b>General Features</b>	Stackability	Virtual Stacking of up to 32 Units; Physical Stacking of up to 6 Units				
	Stacking Speed	Up to 40 Gbps full duplex				
	Switching Capacity	88 Gbps	88 Gbps	88 Gbps	136 Gbps	136 Gbps
	Max Packet Forwarding Rate	65.48 Mpps	65.48 Mpps	65.48 Mpps	101.19 Mpps	101.19 Mpps
	Packet Buffer Memory	2 MB				
	MAC Address Table	16,000				
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention				
<b>Layer 2 Features</b>	Jumbo Frame	13000 Bytes				
	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	•				
<b>Layer 3 Features</b>	Cable Diagnostics	•				
	IP Interfaces	16*				
	Routing Protocols	Static*, RIP v1 / v2**, RIPng**, OSPF v2 / v3***				
	Policy-Based Routing	•**				
	Route Balancing					
	IPv6 Tunneling**	Static, ISATAP, GRE, 6to4				
<b>Virtual LAN (VLAN)</b>	VRRP	•**				
	VLANs	4094 Static				
	GVRP	4k Dynamic				
	Protocol VLAN (802.1v)	•				
<b>Layer 2 Multicasting</b>	Double VLAN (Q-in-Q)	Port-based*				
	Groups	1000				
	Protocols	IGMP Snooping v1 / v2 / v3, MLD Snooping v1/ v2				
<b>Quality of Service (QoS)</b>	Standard	802.1p, DSCP				
	Number of Queues	8				
	Mode	Strict / WRR / Strict + WRR				
	CoS Handling	VLAN ID, 802.1p Priority Queue, MAC, IPv4/v6 Address, DSCP, TCP/UDP Port, Protocol Type, IPv6 Traffic Class, IPv6 Flow Label, User-Defined Packet Content				
	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 8 kbps), Flow-Based (Ingress/Egress, min. granularity 8 kbps)				
<b>Security</b>	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	•				
<b>Authentication, Authorisation and Accounting (AAA)</b>	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)	801.1X NAP, DHCP NAP				
	Guest VLAN	•				
<b>Access Control Lists (ACL)</b>	Switch Access	RADIUS / TACACS+, 4-Level User Account				
	Rules	Ingress ACL: 6 Profiles, 256 Rules per Profile; Egress ACL: 4 Profiles, 128 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	•				
<b>Power over Ethernet</b>	Standard		802.3af (PoE) 802.3at (PoE+)			802.3af (PoE) 802.3at (PoE+)
	PoE Ports		24			48
	PoE Power Budget		370 W (760 W with DPS-700 RPS)			370 W (760 W with DPS-700 RPS)
	Time-Based PoE		•			•
<b>Management</b>	Switch Access	Web GUI, CLI, Telnet, Console				
	sFlow	• *				
	SNMP	v1 / v2c / v3				
	DHCP	Server**, Client, Relay				
	RMON	v1 / v2				
	TFTP Client	•				
<b>Physical and Environment</b>	Syslog	•				
	Power Supply	Internal with RPS Option				
	Maximum Power Consumption	35.5 W	488.3 W	33.5 W	61.5 W	539 W
	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 210 x 44 mm	440 x 310 x 44 mm	440 x 210 x 44 mm	440 x 310 x 44 mm	440 x 380 x 44 mm
Mean Time Between Failures (MTBF)	344,512 Hours	272,292 Hours	433,404 Hours	275,756 Hours	213,575 Hours	
<b>Modules / Transceivers</b>	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				

\* Enhanced Image (EI) only  
\*\* Routed Image (RI) only

# xStack Layer 2+ Gigabit Stackable Managed Switches

## DGS-3130 Series

The DGS-3130 Series is an enhanced Layer 2+ 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 shapping, L2 Multicasting, Robust Security features and IPv6 features which are suitable for next-generation IPv6 networks or triple play applications over Metro Ethernet.



## Principle Product Features

### 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)

## 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

## 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





MODEL	DGS-3130-30TS	DGS-3130-30S	DGS-3130-30PS	DGS-3130-54TS	DGS-3130-54S	DGS-3130-54PS
Interfaces	Gigabit Ethernet	24		24 (PoE)	48	48 (PoE)
	SFP Slots		24		48	
	10GBASE-T	2	2	2	2	2
	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 full duplex				
	Switching Capacity	168 Gbps	168 Gbps	168 Gbps	216 Gbps	216 Gbps
	Max Packet Forwarding Rate	125 Mpps	125 Mpps	125 Mpps	161 Mpps	161 Mpps
	Packet Buffer Memory	2 MB	2 MB	2 MB	4 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		•				
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 4-Level User Account				
	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				
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				
Modules / Transceivers	Dimensions (W x D x H)	440 x 250 x 44 mm	441 x 250 x 44 mm	441 x 350 x 44 mm	441 x 290 x 44 mm	441 x 350 x 44 mm
	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				



# xStack Layer 2+ Gigabit Stackable Managed Switches

## DGS-3420 Series

The xStack DGS-3420 Series of next-generation Layer 2+ Gigabit switches delivers performance, flexibility, security, multi-layer QoS, and accessibility, along with redundant power solutions for SMBs and enterprises. With high Gigabit port density, Gigabit SFP, 10 Gigabit SFP+ support, and advanced software solutions, these switches can act as either departmental access layer devices or aggregation switches to form a multi-level network structure with backbone and centralised high-speed servers. Service providers can take advantage of the high-SFP-density DGS-3420-28SC to structure the aggregation of Fibre to the Building (FTTB) networks that are extended to the subscribers' sites.



### Principle Product Features

#### DGS-3420-28TC

- 10/100/1000BASE-T ports x 20
- 10/100/1000BASE-T/SFP Combo ports x 4
- 10 Gigabit SFP+ ports x 4

#### DGS-3420-28SC

- SFP ports x 20
- 10/100/1000BASE-T/SFP Combo ports x 4
- 10 Gigabit SFP+ ports x 4

#### DGS-3420-26SC

- SFP ports x 20
- 10/100/1000BASE-T/SFP Combo ports x 4
- 10 Gigabit SFP+ ports x 2

#### DGS-3420-28PC

- 10/100/1000BASE-T PoE ports x 20
- 10/100/1000BASE-T PoE/SFP Combo ports x 4
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget (760 W with DPS-700 RPS)

#### DGS-3420-52T

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

#### DGS-3420-52P

- 10/100/1000BASE-T PoE ports x 48
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget (760 W with DPS-700 RPS)

### 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

#### Optional Redundant Power Supplies

DPS-500A	140 W AC Redundant Power Supply for DGS-3420-28TC, DGS-3420-28SC, DGS-3420-26SC and DGS-3420-52T
DPS-700	589 W Redundant Power Supply For DGS-3420-28PC and DGS-3420-52P

#### Optional Management Software

DV-700	D-View 7 Network Management System
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### Key Series Features

- Physical stack of up to 12 Units, up to 40 Gbps full-duplex stacking bandwidth
- Optional external redundant power supply
- Comprehensive security features, including Microsoft NAP
- Comprehensive IPv6 support
- Multiple functions in a single device: switching, static routing and PoE, thus eliminating the need to purchase multiple routers and switches
- Web-based GUI for easy management
- SD Card slot to store and restore configuration files
- Green Technology – power-saving mode, time-based PoE, smart fans

X S T A C K

dlinkgreen



Energy Efficient Ethernet

MODEL		DGS-3420-28TC	DGS-3420-26SC	DGS-3420-28SC	DGS-3420-28PC	DGS-3420-52T	DGS-3420-52P
Interfaces	Fast Ethernet						
	Gigabit Ethernet	20			20 (PoE)	48	48 (PoE)
	SFP Slots		20	20			
	10/100/1000BASE-T/SFP Combo Slots	4	4	4	4 (PoE)		
	10 Gigabit SFP+ Slots	4	2	4	4	4	4
General Features	Stackability	Virtual Stacking of up to 32 Units; Physical Stacking of up to 12 Units					
	Stacking Speed	Up to 40 Gbps full duplex					
	Switching Capacity	128 Gbps	88 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps
	Max Packet Forwarding Rate	95.24 Mpps	65.47 Mpps	95.24 Mpps	95.24 Mpps	130.95 Mpps	130.95 Mpps
	Packet Buffer Memory	2 MB					
	MAC Address Table	16,000					
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention					
	Jumbo Frame	13000 Bytes					
	Layer 2 Features	Loop Protection	802.1D, 802.1w, 802.1s, ERPS				
802.3ad Link Aggregation		32 Groups, 8 Gigabit Ports per Group / 2 x 10 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	256					
	Routing Protocols	Static, RIP v1/v2, RIPng					
	Policy-Based Routing	•					
	Route Balancing	•					
	IPv6 Tunneling	Static, ISATAP, 6to4, GRE					
Virtual LAN (VLAN)	VRRP	•					
	VLANs	4096 Static					
	GVRP	255 Dynamic					
	Protocol VLAN (802.1v)	•					
Layer 2 Multicasting	Double VLAN (Q-in-Q)	Port-Based / Selective					
	Groups	960 (IGMP), 480 (MLD)					
Quality of Service (QoS)	Protocols	IGMP Snooping v1/v2/v3, MLD Snooping v1/ v2					
	Standard	802.1p, DSCP					
	Number of Queues	8					
	Mode	Strict / WRR / Strict+WRR					
	CoS Handling	Switch Port, 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					
Security	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 8 kbps), Flow-Based (Ingress, min. granularity 8 kbps)					
	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	•					
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 4-Level User Account					
	Rules	Ingress ACL: 6 Profiles, 256 Rules per Profile; Egress ACL: 4 Profiles, 128 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					
Power over Ethernet	Time-Based ACL	•					
	Standard				802.3af (PoE) 802.3at (PoE+)		802.3af (PoE) 802.3at (PoE+)
	PoE Ports				24		48
	PoE Power Budget				370 W (760 W with DPS-700 RPS)		370 W (760 W with DPS-700 RPS)
Management	Time-Based PoE				•		•
	Switch Access	Web GUI, CLI, Telnet, Console					
	sFlow	•					
	SNMP	v1 / v2c / v3					
	DHCP	Server, Client, Relay					
	RMON	v1 / v2					
	TFTP Client	•					
Syslog	•						
Physical and Environment	Power Supply	Internal with RPS Option					
	Maximum Power Consumption	44.9 W	40.2 W	42.6 W	502.2 W	76 W	517.1 W
	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					
Modules / Transceivers	Dimensions (W x D x H)	441 x 310 x 44 mm	441 x 310 x 44 mm	441 x 310 x 44 mm	441 x 380 x 44 mm	441 x 380 x 44 mm	441 x 380 x 44 mm
	Mean Time Between Failures (MTBF)	293,446 Hours	300,618 Hours	298,747 Hours	237,115 Hours	248,607 Hours	226,203 Hours
	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					

# Layer 3 Gigabit Stackable Managed Switches

## DGS-3630 Series

The D-Link DGS-3630 Series is a cost effective Layer 3 Gigabit Managed Switch that comes with 10G uplinks. It 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. It comes with Switch Resource Management (SRM) function that optimizes the switch database to cater for different application needs by allowing the hardware table size to be changed. There are 3 modes: IP Mode, LAN Mode and L2 VPN Mode, which modify the size of the Layer 2 and Layer 3 tables for optimum efficiency. The DGS-3630 Series is designed with 3 different software images: the Standard Image (SI), Enhanced Image (EI) and MPLS Image (MI). 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 supports full L3 routing for enterprise integration, including OSPF, BGP, VRF-Lite and L3 multicast. The MPLS Image offers VPN services for ISPs, including IS-IS and MPLS L2/L3 VPN. The hardware platform is the same, whereby user would just need to upgrade to the feature set they preferred via license upgrade.



### Principle Product Features

#### DGS-3630-28TC

- 10/100/1000BASE-T ports x 20
- 10/100/1000BASE-T/SFP Combo ports x 4
- 10 Gigabit SFP+ ports x 4

#### DGS-3630-28PC

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

#### DGS-3630-28SC

- SFP ports x 20
- 10/100/1000BASE-T/SFP Combo ports x 4
- 10 Gigabit SFP+ ports x 4

#### DGS-3630-52TC

- 10/100/1000BASE-T ports x 44
- 10/100/1000BASE-T/SFP Combo ports x 4
- 10 Gigabit SFP+ ports x 4

#### DGS-3630-52PC

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

### Optional Modules & Accessories

#### Optional Software Image Upgrade Licenses

DGS-3630-28TC-SE-LIC	DGS-3630-28TC Standard to Enhanced Image Upgrade License
DGS-3630-28TC-EM-LIC	DGS-3630-28TC Enhanced to MPLS Image Upgrade License
DGS-3630-28TC-SM-LIC	DGS-3630-28TC Standard to MPLS Image Upgrade License
DGS-3630-28PC-SE-LIC	DGS-3630-28PC Standard to Enhanced Image Upgrade License
DGS-3630-28PC-EM-LIC	DGS-3630-28PC Enhanced to MPLS Image Upgrade License
DGS-3630-28PC-SM-LIC	DGS-3630-28PC Standard to MPLS Image Upgrade License
DGS-3630-28SC-SE-LIC	DGS-3630-28SC Standard to Enhanced Image Upgrade License
DGS-3630-28SC-EM-LIC	DGS-3630-28SC Enhanced to MPLS Image Upgrade License
DGS-3630-28SC-SM-LIC	DGS-3630-28SC Standard to MPLS Image Upgrade License
DGS-3630-52TC-SE-LIC	DGS-3630-52TC Standard to Enhanced Image Upgrade License
DGS-3630-52TC-EM-LIC	DGS-3630-52TC Enhanced to MPLS Image Upgrade License
DGS-3630-52TC-SM-LIC	DGS-3630-52TC Standard to MPLS Image Upgrade License
DGS-3630-52PC-SE-LIC	DGS-3630-52PC Standard to Enhanced Image Upgrade License
DGS-3630-52PC-EM-LIC	DGS-3630-52PC Enhanced to MPLS Image Upgrade License
DGS-3630-52PC-SM-LIC	DGS-3630-52PC Standard to MPLS Image Upgrade License

#### 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

#### Optional Redundant Power Supplies

DPS-500A	AC Redundant Power Supply
DPS-700	589W Redundant Power Supply for DGS-3630-28PC/52PC

### Key Series Features

- 6KV Surge Protection on all ethernet ports
- Switch Resource Management (SRM) for flexible management of system resources
- Virtual Routing and Forwarding (VRF)\*
- RJ-45/mini-USB console port
- Management and alarm port
- USB port for firmware and configuration files
- IEEE 802.1Qbb Priority-based Flow Control (PFC) for 10G ports
- NLB
- MPLS\*\*
- OSPF/BGP\*
- ERPS
- Three Color Marker (trTCM/srTCM)
- Congestion Control (WRED)
- Access Control List (ACL)
- Port security
- Traffic segmentation
- Broadcast/multicast/unicast storm control
- DoS attack prevention
- Web-based GUI
- SSH
- SNMP & RMON
- LLDP/LLDP-MED
- L2/L3/L4 multi-layer access control lists
- 802.1x user authentication via TACACS+ and RADIUS servers
- Redundant Power Supply (RPS) support





MODEL		DGS-3630-28TC	DGS-3630-28PC	DGS-3630-28SC	DGS-3630-52TC	DGS-3630-52PC
Interfaces	Gigabit Ethernet	20	20 (PoE)		44	44 (PoE)
	Gigabit SFP Slots			20		
	10/100/1000Base-T/SFP Combo Slots	4	4 (PoE)	4	4	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 Bandwidth	Up to 80G Stacking Bandwidth				
	Switching Capacity	128 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps
	Max Packet Forwarding Rate	95.24 Mpps	95.24 Mpps	95.24 Mpps	130.95 Mpps	130.95 Mpps
	Packet Buffer Memory	4 MB				
	MAC Address Table	68,000				
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention				
Layer 2 Features	Jumbo Frame	12000 Bytes				
	Loop Protection	802.1D, 802.1w, 802.1s, ERPS				
	802.3ad Link Aggregation	Max 32 Groups per Device, 8 Ports per Group				
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, Flow-Based (ACL) Mirroring, RSPAN, VLAN Mirroring				
	Loopback Detection	•				
Layer 3 Features	Cable Diagnostics	•				
	ARP	512 Static ARP				
	IP Interface	256				
	Routing Protocols	RIP v1/v2, RIPng, OSPF v2/v3*, BGPv4/v4+*, VRF-Lite**, Policy-based Routing, Route Redistribution, Bidirectional Forwarding Detection (BFD), IS-IS v4/v6**				
	Layer 3 Routing	Supports 16K hardware routing entries shared by IPv4/IPv6, Supports 32K hardware L3 forwarding entries shared by IPv4/IPv6				
	Static Routing	Max. 512 IPv4 entries, Max 256 IPv6 entries, Equal Cost Multi-Path Route (ECMP)*				
	IPv6 Tunneling	Static, ISATAP, GRE, 6to4				
Virtual LAN (VLAN)	VRRP	v2 / v3				
	VLANs	4096 Static				
	GVRP	4096 Dynamic				
	Subnet-based VLAN	•				
	Double VLAN (Q-in-Q)	Port-Based, Selective				
	Port-based VLAN	•				
	Protocol VLAN (802.1v)	•				
Layer 2 Multicasting	MAC-based VLAN	•				
	Private VLAN	•				
Quality of Service (QoS)	Groups	8K (IGMP), 4K (MLD)				
	Protocols	IGMP Snooping v1 / v2 / v3, MLD Snooping v1 / v2				
	Standard	802.1p				
	Number of Queues	8				
	Mode	Strict / WRR / Strict + WRR / WDRR				
Security	CoS Handling	802.1p Priority Queues, DSCP, VLAN ID, MAC, IPv4/v6 address, Ether Type, Protocol Type, IPv6 Traffic class, IPv6 flow label, TCP/UDP port, ToS/IP Preference				
	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 kbps)				
	Port Security, DoS Attack Prevention, IP-MAC-Port Binding, DHCP Server Screening, ARP Spoofing Prevention, Traffic Segmentation, D-Link SafeGuard Engine	•				
Power Over Ethernet	Storm Control	Broadcast / Multicast / Unicast				
	Standard	802.3af (PoE) 802.3at (PoE+)				802.3af (PoE) 802.3at (PoE+)
	PoE Ports	24				48
	PoE Power Budget	370W (740W with DPS-700 RPS)				370W (740W with DPS-700 RPS)
	Time-Based PoE	•				
Data Centre Features	DCB Standards Supported	IEEE 802.1Qbb Priority-based Flow Control (PFC) for 10G port, NLB				
Layer 3 Additional Features	L3 Multicasting*	Multicast Table Size: 8K, IGMP v1/v2/v3, MLD v1/v2, IGMP/MLD Proxy, PIM-SM, PIM-DM, PIM-Sparse-Dense Mode, PIM-SSM, DVMRP v3, MSDP				
	MPLS**	LDP, Penultimate hop popping (PHP), Virtual Private Wire Service (VPWS), Virtual Private LAN Service (VPLS), LSP/VCCV/MPLS Ping/Traceroute				
	L3 VPN**	MPLS/BGP VPN, Multiprotocol extensions for BGP4, Virtual Routing Forwarding (VRF)				
Authentication, Authorisation and Accounting (AAA)	L3 VPN**	MPLS/BGP VPN, Multiprotocol extensions for BGP4, Virtual Routing Forwarding (VRF)				
	802.1x Authentication	Port-based, Host-based, Dynamic VLAN/ACL/QoS Assignment				
Access Control Lists (ACL)	Access Control	Web-based Access Control (WAC), MAC-based Access Control (MAC), 802.1x NAP, DHCP NAP, Guest VLAN				
	Max ACL entries	4K Ingress ACL Rules, 1k Egress ACL Rules, 3K VLAN Access Map, Time-based ACL				
Management	ACL Handling	802.1p Priority, VLAN ID, MAC, Ether Type, IPv4/v6 Address, ToS/IP Preference, DSCP, Protocol Type, TCP/UDP Port Number, IPv6 Traffic Class, IPv6 Flow Label				
	Switch Access	Web GUI, CLI, Telnet, Console				
	SNMP	v1 / v2c / v3				
	DHCP	Server, Client, Relay				
	RMON	v1 / v2				
Physical and Environment	TFTP Client, Syslog, sFlow	•				
	Power Supply	Internal				
	Maximum Power Consumption	42.4 W	469.3 W	63.58 W	62 W	485 W
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient 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 380 x 44 mm	441 x 259.8 x 44 mm	441 x 259.8 x 44 mm	441 x 380 x 44 mm
Mean Time Between Failures (MTBF)	300,190.46 Hours	259,222.76 Hours	280,612.09 Hours	263,936.78 Hours	199,929.76 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-436XT-B0D, DEM-436XT-B0U				
	SFP Transceivers	DEM-210, DEM-220T, DEM-220R, DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712				

\* Enhanced Image (EI) only  
\*\* MPLS Image (MI) only



# Layer 3 Lite 10 Gigabit Stackable Managed Switches

## DXS-3400 Series

The D-Link DXS-3400 Series is Layer 3 Lite Stackable 10 GbE Managed Switch that consists of new compact, high-performance switches that feature wire speed 10 Gigabit Ethernet switching, routing and ultra-low latency. It offers 20 10GBASE-T or 10G SFP+ ports and 4 10GBASE-T/SFP+ combo ports, making them suitable for data center, core and distribution applications. The redundancy features such as hot-swappable power supplies, redundant fan trays and switch stacking maximizes the availability of customers' network. The Data Center functionality available through Data Center Bridging (DCB) enhances network performance and reliability. The DXS-3400 Series provides industry-standard management tools that allow the switch to be easily administered and integrating seamlessly with existing devices. The Switch Resource Management (SRM) feature allows the hardware table size to be changed, so that switch functions can be optimized based on the usage of the switch. This switch series come with 3 modes: IP Mode, LAN Mode and L2 VPN Mode, which modify the size of Layer 2 and Layer 3 tables for optimum efficiency.



## Principle Product Features

### DXS-3400-24TC

- 10GBASE-T ports x 20
- 10GBASE-T/SFP+ Combo ports x 4
- 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+ ports x 20
- 10GBASE-T/SFP+ Combo ports x 4
- Hot-swappable power modules for power redundancy and load sharing
- Hot-swappable fan trays with airflow control provide cooling redundancy

## Optional Modules & Accessories

### Optional Software Image Upgrade Licenses

DXS-3400-24TC-SE-LIC DXS-3400-24TC Standard to Enhanced Image Upgrade License  
DXS-3400-24SC-SE-LIC DXS-3400-24SC Standard to Enhanced Image Upgrade License

### Optional Redundant/Replacement Power Supplies

DXS-PWR300AC 300W AC 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 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

### Optional Management Software

DV-700 D-View 7 Network Management System

## Key Series Features

- IEEE 802.1Qbb Priority-based Flow Control (PFC)
- IEEE 802.1Qaz Enhanced Transmission Selection (ETS)
- IEEE 802.1Qau Congestion Notification (QCN)
- Two AC/DC hot-swappable power modules for 1+1 redundancy and load sharing (default come with 1 AC power module)
- Three hot-swappable fan trays provide N+1 cooling redundancy
- Physical Stacking via 4 10G ports, stackable up to 4 devices
- Switch Resource Management (SRM) for flexible management of system resources
- ERPS
- Three Color Marker (trTCM/srTCM)
- USB Port for Firmware and Configuration Files
- SSH
- SNMP & RMON
- LLDP/LLDP-MED
- L2/L3/L4 multi-layer access control lists
- 802.1x user authentication via TACACS+ and RADIUS servers





MODEL		DXS-3400-24TC	DXS-3400-24SC
Interfaces	10GBASE-T	20	
	10 Gigabit SFP+ Slots		20
	10GBASE-T/SFP+ Combo Slots	4	4
General Features	Stackability	Virtual Stacking of up to 32 Units; Physical Stacking of up to 4 Units	
	Stacking Bandwidth	Up to 80G Stacking Bandwidth	
	Switching Capacity	480 Gbps	480 Gbps
	Max Packet Forwarding Rate	357.12 Mpps	357.12 Mpps
	Packet Buffer Memory	4 MB	
	MAC Address Table	48,000	
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention	
	Jumbo Frame	12000 Bytes	
Layer 2 Features	Loop Protection	802.1D, 802.1w, 802.1s, ERPS	
	802.3ad Link Aggregation	Max 32 Groups per Device , 8 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, Flow-Based (ACL) Mirroring, RSPAN, VLAN Mirroring	
	Loopback Detection	•	
Layer 3 Features	Cable Diagnostics	•	
	ARP	512 Static ARP	
	IP Interface	256	
	Routing Protocols	RIP v1/v2, RIPng, OSPF v2*/v3*, Policy-based Routing, Route Redistribution*, Bidirectional Forwarding Detection (BFD)*	
	Layer 3 Routing	Supports 4096 hardware routing entries shared by IPv4/IPv6 (max. 4094 IPv4 entries, max. 1024 IPv6 entries), Supports 32K hardware L3 forwarding entries shared by IPv4/IPv6 (max. 32K IPv4 entries, max. 16K IPv6 entries)	
	Static Routing	Max. 256 IPv4 entries, Max 128 IPv6 entries, Secondary Route	
	IPv6 Tunneling*	Static, ISATAP, GRE, 6to4	
	VRRP	v2 / v3	
Virtual LAN (VLAN)	Layer 3 Multicasting*	IGMP/MLD Proxy, PIM-SM, PIM-SM v6, PIM-DM, PIM-SSM, PIM-SDM, DVMRP v3, MSDP	
	VLANs	4096 Static	
	GVRP	4096 Dynamic	
	Subnet-based VLAN	•	
	Double VLAN (Q-in-Q)	Port-Based / Selective	
	Port-based VLAN	•	
	MAC-based VLAN	•	
Layer 2 Multicasting	Protocol VLAN (802.1v)	•	
	Private VLAN	•	
Quality of Service (QoS)	Groups	512 (IGMP), 256 (MLD)	
	Protocols	IGMP Snooping v1 / v2 / v3*, MLD Snooping v1 / v2*	
	Standard	802.1p	
	Number of Queues	8	
	Mode	Strict / WRR / Strict + WRR / DRR / WDRR	
Security	CoS Handling	802.1p Priority Queues ,DSCP, VLAN ID, MAC, IPv4/v6 address, IPv6 Traffic class, IPv6 flow label, TCP/UDP port, Switch Port, Ether Type, ToS/IP Preference, Protocol Type	
	Bandwidth Control	Port-Based (Ingress/Egress, min. granularity 64 kbps), Flow-Based (Ingress/Egress, min. granularity 64 kbps) Per Queue Bandwidth Control (min. granularity 64 kbps)	
	STP Security	BPDU Restriction, Root Restriction	
Data Centre Features	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)	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	
	802.1x Authentication	Port-based, Host-based, Dynamic VLAN/ACL/QoS Assignment	
	Access Control	Web-based Access Control (WAC), MAC-based Access Control (MAC), 802.1x NAP, DHCP NAP	
Access Control Lists (ACL)	Guest VLAN	•	
	Max ACL entries	Ingress ACL Rules: 1792 (IPv4), 448 (IPv6), Egress ACL Rules: 512 (IPv4), 256 (IPv6), 3K VLAN Access Map, Time-based ACL	
Management	ACL Handling	802.1p Priority, VLAN ID, MAC, Ether Type, IPv4/v6 Address, DSCP, Protocol Type, TCP/UDP Port Number, IPv6 Traffic Class, IPv6 Flow Label	
	Switch Access	Web GUI, CLI, Telnet, Console	
	sFlow	•	
	SNMP	v1 / v2c / v3	
	DHCP	Server, Client, Relay	
	RMON	v1 / v2	
	TFTP Client	•	
Physical and Environment	Syslog	•	
	Power Supply	Internal	
	Maximum Power Consumption	163.62 W	113.9 W
	Power-Saving Technology	IEEE 802.3az Energy-Efficient Ethernet	
Modules / Transceivers	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	
	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-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DGS-712		

\* Enhanced Image (EI) only

# Layer 3 10 Gigabit Stackable Managed Switches

## DXS-3600 Series

The D-Link DXS-3600 Series offers two compact, high-performance switches that feature wire-speed 10 Gigabit Ethernet switching, routing, and very low latency. The 1U height and selectable front-to-back or back-to-front air flow make the DXS-3600 Series suitable for enterprise and campus aggregation network environments, while the 8 or 24 fixed 10 Gigabit SFP+ ports and can accommodate more ports with the addition of an expansion module. The expansion modules not only provide extra 10G SFP+ ports, but also increase the flexibility of physical stacking, or low-cost 10GBASE-T connections for different applications.



### Principle Product Features

#### DXS-3600-16S

- 10 Gigabit SFP+ ports x 8
- Open expansion slot x 1
- Switching capacity of up to 480 Gbps
- Up to 160G stacking bandwidth with four devices functioning together as one
- Hot-swappable power modules for power redundancy and load sharing
- Hot-swappable fan trays with airflow control provide cooling redundancy

#### DXS-3600-32S

- 10 Gigabit SFP+ ports x 24
- Open expansion slot x 1
- Switching capacity of up to 960 Gbps
- Up to 480G stacking bandwidth with four devices functioning together as one
- Hot-swappable power modules for power redundancy and load sharing
- Hot-swappable fan trays with airflow control provide cooling redundancy

### Key Series Features

- 1x 10/100/1000BASE-T Ethernet port for out-of-band remote management
- IEEE 802.1Qbb Priority-based Flow Control (PFC)
- IEEE 802.1Qaz Enhanced Transmission Selection (ETS)
- IEEE 802.1Qau Congestion Notification (QCN)
- NLB
- MPLS (Enhanced Image)
- OSPF/BGP (Enhanced Imaged)
- ERPS
- Three Color Marker (trTCM/srTCM)
- Congestion Control
- Access Control List (ACL)
- Port security
- Traffic segmentation
- Broadcast/multicast/unicast storm control
- DoS attack prevention
- Web-based GUI
- SSH
- SNMP & RMON
- LLDP/LLDP-MED
- L2/L3/L4 multi-layer access control lists
- 802.1x user authentication via TACACS+ and RADIUS servers

**STACK**

**dlinkgreen**



Energy Efficient Ethernet

### Optional Modules & Accessories

#### Optional Software Image Upgrade Licenses

DXS-3600-32S-SE-LIC DXS-3600-32S standard to enhanced image upgrade license  
DXS-3600-16S-SE-LIC DXS-3600-16S standard to enhanced image upgrade license

#### Optional Expansion Modules

DXS-3600-EM-4XT 4-Port 10GBASE-T Module  
DXS-3600-EM-8T 8-Port 10/100/1000BASE-T Module  
DXS-3600-EM-Stack 2-Port 120G CXP Stacking Module (for use on DXS-3600-32S only)  
DXS-3600-EM-4QXS 4-Port 40G QSFP+ Module  
DXS-3600-EM-8XS 8-Port 10G SFP+ Module

#### Optional 40G QSFP+ Transceiver (for use with DXS-3600-EM-4QXS Module)

DEM-QX01Q-SR4 40GBASE-SR4 Multi-mode QSFP+ Transceiver, OM3: 100m, OM4: 150m  
DEM-QX10Q-LR4 40GBASE-LR4 Single-mode QSFP+ Transceiver, 10km

#### Optional Redundant/Replacement Power Supplies

DXS-PWR300AC 300W AC Modular Power Supply with front-to-back airflow

#### Optional Redundant/Replacement Fan Tray

DXS-3600-FAN-FB Fan Module with front-to-back airflow  
DXS-3600-FAN-BF Fan Module with back-to-front airflow

#### Optional 120G Stacking Cable

DEM-CB50CX 120G Stacking Cable for use with DXS-3600-EM-Stack (CXP to CXP 50cm)

#### 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  
DEM-CB100QXS 40 Gigabit QSFP+ 1 m Direct Attach Cable (for use with DXS-3600-EM-4QXS Module)  
DEM-CB300QXS 40 Gigabit QSFP+ 3 m Direct Attach Cable (for use with DXS-3600-EM-4QXS Module)  
DEM-CB100QXS-4XS 40G QSFP+ to 4 x 10G SFP+ 1 m Direct Attach Cable (for use with DXS-3600-EM-4QXS Module)

#### Optional Management Software

DV-700 D-View 7 Network Management System



MODEL		DXS-3600-16S	DXS-3600-32S
Interfaces	10 Gigabit SFP+ Slots	8	24
	Expansion Slot	1	
General Features	Stackability	Virtual Stacking of up to 32 Units; Physical Stacking of up to 4 Units	
	Stacking Bandwidth	DXS-3600-EM-4QXS: 160G	DXS-3600-EM-Stack: 480G DXS-3600-EM-4QXS: 160G
	Switching Capacity	480 Gbps	960 Gbps
	Max Packet Forwarding Rate	357.14 Mpps	714.28 Mpps
	Packet Buffer Memory	9 MB	
	MAC Address Table	128,000	
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Prevention	
Layer 2 Features	802.3ad Link Aggregation	Max 32 Groups per Device , 12 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One, Mirroring for Tx/Rx/Both, RSPAN	
	Jumbo Frame	12000 Bytes	
Layer 3 Features	ARP	512 Static ARP	
	IP Interface	256	
	Routing Protocols*	RIP v1/v2, RIPng, OSPF v2/v3, BGPv4, Policy-based Routing, Route Redistribution, Bidirectional Forwarding Detection (BFD)	
	Static Routing	Max. 1K IPv4 entries, Max 512 IPv6 entries, Secondary Route, Equal Cost/Weighted Cost Multi-Path Route	
Virtual LAN (VLAN)	VLANs	4096 Static	
	GVRP	4096 Dynamic	
	Subnet-based VLAN	•	
	Double VLAN (Q-in-Q)	Port-Based / Selective	
	Port-based VLAN	•	
	MAC-based VLAN	•	
Layer 2 Multicasting	Groups	4K	
	Protocols	IGMP Snooping v1 / v2 / v3, MLD Snooping v1 / v2	
Quality of Service (QoS)	Standard	802.1p	
	Number of Queues	8	
	Mode	Strict / WRR / Strict + WRR / RR / WDRR	
	CoS Handling	802.1p Priority Queues ,DSCP, VLAN ID, MAC, IPv4/v6 address, IPv6 Traffic class, IPv6 flow label, TCP/UDP port	
	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 kbps)	
Security	STP Security	BPDU Restriction, Root Restriction	
	Port Security	•	
	DoS Attack Prevention	•	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding	•	
	DHCP Server Screening	•	
	ARP Spoofing Prevention	•	
	Traffic Segmentation	•	
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	
	MPLS	LDP, MPLS LSP trigger filtering, MPLS label-forwarding, MPLS QoS, MPLS ping and traceroute, L2 protocol tunneling through PW, VPWS, VPLS, PW Redundancy	
	L3 Features	IPv6 Tunneling (Static, ISATAP, GRE, 6to4), VRRP	
	L3 VPN	MPLS/BGP L3 VPN, VRF-Lite, MP-BGP, VRF aware application	
Authentication, Authorisation and Accounting (AAA)	L3 Routing	Supports 16K hardware routing entries shared by IPv4/IPv6 (max. 16K IPv4 entries, max. 8K IPv6 entries), Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6 (max. 8K IPv4 entries, max. 4K 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, BGPv4, Route Redistribution, IP Directed Broadcast, Policy Based Route	
	802.1x Authentication	Port-based, Host-based, Dynamic VLAN/ACL/QoS Assignment	
Access Control Lists (ACL)	Access Control	Web-based Access Control (WAC), MAC-based Access Control (MAC)	
	Guest VLAN	•	
Management	Max ACL entries	1792 Ingress ACL Rules, 1k Egress ACL Rules, 1K VLAN ACL Rules	
	ACL Handling	802.1p Priority, VLAN ID, MAC, Ether Type, IPv4/v6 Address, DSCP, Protocol Type, TCP/UDP Port Number, IPv6 Traffic Class, IPv6 Flow Label	
	Switch Access	Web GUI, CLI, Telnet, Console	
	sFlow	•	
	SNMP	v1 / v2c / v3	
	DHCP	Server, Client, Relay	
	RMON	v1 / v2	
Physical and Environment	TFTP Client	•	
	Syslog	•	
	Power Supply	Internal	
	Maximum Power Consumption	74.3 W	116.8 W
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet	
	Operating Temperature	0°C to 45°C	
Modules / Transceivers	Operating Humidity	0% to 95% RH Non-Condensing	
	Dimensions (W x D x H)	440 x 506 x 44 mm	
	Mean Time Between Failures (MTBF)	138,345 Hours	134,330 Hours
	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-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-330T, DEM-330R, DEM-331T, DEM-331R, DG5-712	

\* Enhanced Image (EI) only



# 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 comprehensive 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 802.1x Access 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-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



### Principle Product Features

#### DGS-1100-06/ME

- 10/100/1000BASE-T ports x 5
- SFP port x 1

#### DGS-1100-16/ME

- 10/100/1000BASE-T ports x 16

#### DGS-1100-24/ME

- 10/100/1000BASE-T ports x 24

#### DGS-1100-10/ME

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

#### DGS-1100-18/ME

- 10/100/1000BASE-T ports x 16
- SFP ports x 2

#### 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



MODEL		DGS-1100-06/ME	DGS-1100-10/ME	DGS-1100-16/ME	DGS-1100-18/ME	DGS-1100-24/ME	DGS-1100-24P/ME
Interfaces	Gigabit Ethernet	5	8	16	16	24	12 (PoE) + 12
	10/100/1000BASE-T/SFP Combo Slots		2				
	SFP Slots	1			2		
General Features	Switching Capacity	12 Gbps	20 Gbps	32 Gbps	36 Gbps	48 Gbps	48 Gbps
	Max Packet Forwarding Rate	8.9 Mpps	14.88 Mpps	23.81 Mpps	26.79 Mpps	35.71 Mpps	35.71 Mpps
	Packet Buffer Memory	128KB	4.1 Mbits	512 KB	1.5 MB	512 KB	512 KB
	MAC Address Table	4,000	8,000	8,000	16,000	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	9216 Bytes
Layer 2 Features	Loop Protection	802.1D, 802.1w		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	9 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	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	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	802.1p
	Number of Queues	4	8	4	4	4	4
	Mode	Strict / WRR					
	CoS Handling	802.1p, DSCP, IPv6 Traffic Class	802.1p, DSCP	Switch Port	Switch Port	Switch Port	Switch Port
	Bandwidth Control	Port-Based (Ingress/ Egress, min. granularity 64 kbps)	Port-Based (Ingress/ Egress, 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	v1 / v2c
	DHCP	Client, Relay					
	RMON	v1	v1				
	TFTP Client	•					
	Syslog	•					
Physical and Environment	Power Supply	External	External	Internal	Internal	Internal	Internal
	Maximum Power Consumption	7.08W	7.9 W	9.31 W	14.88 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	2,671,256 Hours	2,406,109 Hours	563,292 Hours
	Operating Temperature	0°C to 40°C	-5°C to 50°C	-5°C to 50°C	-5°C to 50°C	-5°C to 50°C	-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	190 x 120 x 38 mm	280 x 180 x 44 mm	280 x 180 x 44 mm	280 x 180 x 44 mm	280 x 230 x 44 mm	
Modules / Transceivers		DEM-210, DEM-211, DEM-220T, DEM-220R (Supported by DGS-1100-06, 10/ME)					
	SFP Transceivers	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 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



### Principle Product Features

#### 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 (B1)

- 10/100/1000BASE-T ports x 24
- SFP ports x 4

#### DGS-1210-28P/ME (B1)

- 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 (B1)

- 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-1210-28X/ME (B1)

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

#### DGS-1210-28XS/ME (B1)

- SFP ports x 24
- 10 Gigabit SFP+ ports x 4

#### DGS-1210-52/ME (B1)

- 10/100/1000BASE-T ports x 48
- SFP ports x 4

#### DGS-1210-52P/ME (B1)

- 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 (B1)

- 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 Primary Power 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
SUS4-21124-000S	Optional 54W AC to DC Power Supply Unit (PSU) with external lead-acid battery



MODEL		DGS-1210-10/ME	DGS-1210-10P/ME	DGS-1210-20/ME	DGS-1210-28/ME	DGS-1210-28P/ME	DGS-1210-28MP/ME	
Interfaces	Gigabit Ethernet	8	8 (PoE)	16	24	24 (PoE)	24 (PoE)	
	SFP Slots	2	2	4	4	4	4	
	10 Gigabit SFP+ Slots							
General Features	Switching Capacity	20 Gbps	20 Gbps	40 Gbps	56 Gbps	56 Gbps	56 Gbps	
	Max Packet Forwarding Rate	14.88 Mpps	14.88 Mpps	29.8 Mpps	41.7 Mpps	41.7 Mpps	41.7 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	•						
Layer 3 Features	Cable Diagnostics	•						
	ARP	256 Static ARP						
	IP Interfaces	4						
	Static Routing	•						
Virtual LAN (VLAN)	Default Routing	•						
	Static Routing	Max 64 IPv4 Entries, Max 32 IPv6 Entries						
	VLANs	4094 Static						
	GVRP	256 Dynamic						
	Protocol VLAN (802.1v)	•						
	Double VLAN (Q-in-Q)	Port-Based						
	MAC-Based VLAN	•						
Layer 2 Multicasting	ISM VLAN (Multicast VLAN)	•						
	Private VLAN	•						
	VLAN Trunking	•						
	Groups	256						
	Protocols	IGMP Snooping v1 / v2 / v3 awareness, MLD Snooping v1 / v2 awareness						
	Standard	802.1p						
Quality of Service (QoS)	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)						
	STP Security	BPDU Filtering, Root Restriction						
	Port Security	•						
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		•						
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 4-Level User Account						
	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						
Power over Ethernet	Time-Based ACL	•						
	Standard		802.3af (PoE) 802.3at (PoE+)			802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	
	PoE Ports		8			24	24	
	PoE Power Budget		78 W			193 W	370 W	
Management	Time-Based PoE		•			•	•	
	Switch Access	Web GUI, CLI, Telnet, Console						
	SNMP	v1 / v2c / v3						
	DHCP	Client, Relay						
	RMON	v1 / v2						
	TFTP Client	•						
Physical and Environment	Syslog	•						
	Power Supply	Internal with RPS Option on Non-PoE Models						
	Maximum Power Consumption	13.59 W	101.7 W	13.97 W	19.14 W	251.5 W	445 W	
	Power-Saving Technology	Green Ethernet, IEEE 802.3az Energy-Efficient Ethernet						
	Mean Time Between Failures (MTBF)	412,956 Hours	310,336 Hours	349,836 Hours	497,918 Hours	331,699 Hours	267,960 Hours	
	Operating Temperature	-5°C to 50°C						
Modules/ Transceivers	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 x 140 x 44 mm	440 x 210 x 44 mm	440 x 250 x 44 mm	
	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						





MODEL		DGS-1210-12TS/ME	DGS-1210-28X/ME	DGS-1210-28XS/ME	DGS-1210-52/ME	DGS-1210-52P/ME	DGS-1210-52MP/ME	DGS-1210-52MPP/ME
Interfaces	Gigabit Ethernet	2	24		48	24 (PoE) + 24	48 (PoE)	48 (PoE)
	SFP Slots	10		24	4	4	4	4
	10 Gigabit SFP+ Slots		4	4				
General Features	Switching Capacity	24 Gbps	128 Gbps	128 Gbps	104 Gbps	104 Gbps	104 Gbps	104 Gbps
	Max Packet Forwarding Rate	17.86 Mpps	95.24 Mpps	95.24 Mpps	77.4 Mpps	77.4 Mpps	77.4 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	•						
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 4-Level User Account						
	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						
Power over Ethernet	Standard					802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
	PoE Ports					802.3af (PoE): 16 802.3at (PoE+): 8	802.3af (PoE): 40 802.3at (PoE+): 8	48
	PoE Power Budget					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	13.85 W	24.4 W	33.4 W	38.35 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)	405,083 Hours	450,021 Hours	243,327 Hours	381,999 Hours	289,151 Hours	272,910 Hours	265,457 Hours
	Operating Temperature	-5°C to 50°C						
	Operating Humidity	10% to 90% RH Non-Condensing						
Modules/ Transceivers	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 210 x 44 mm	440 x 430 x 44 mm	440 x 430 x 44 mm	440 x 431 x 44 mm
	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						

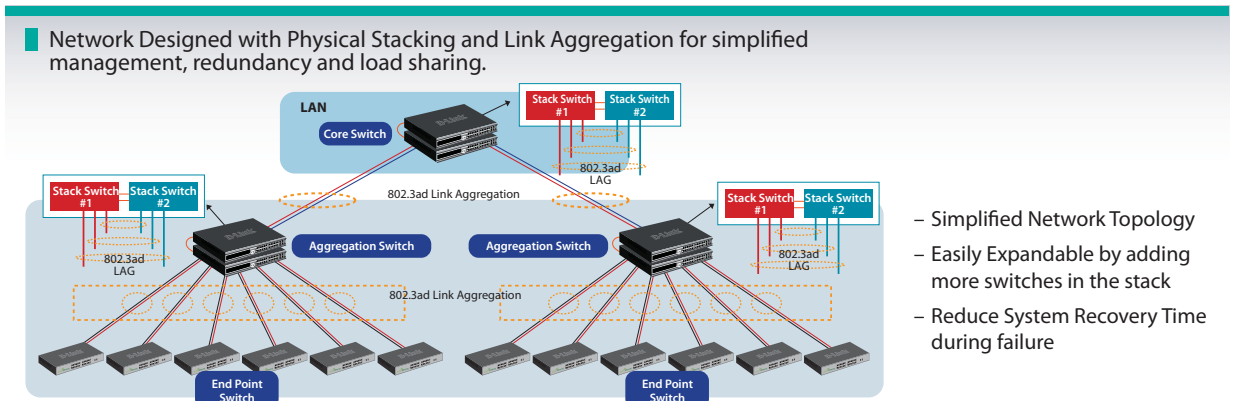
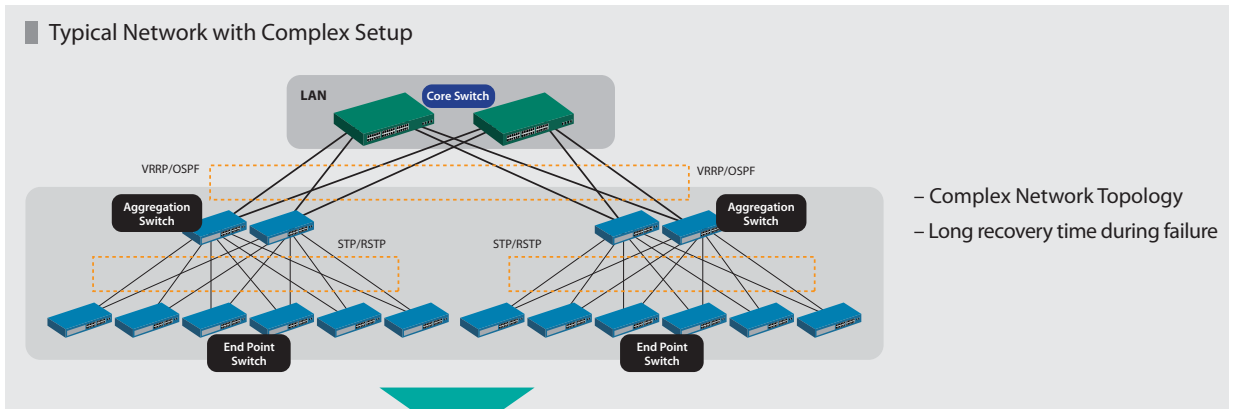
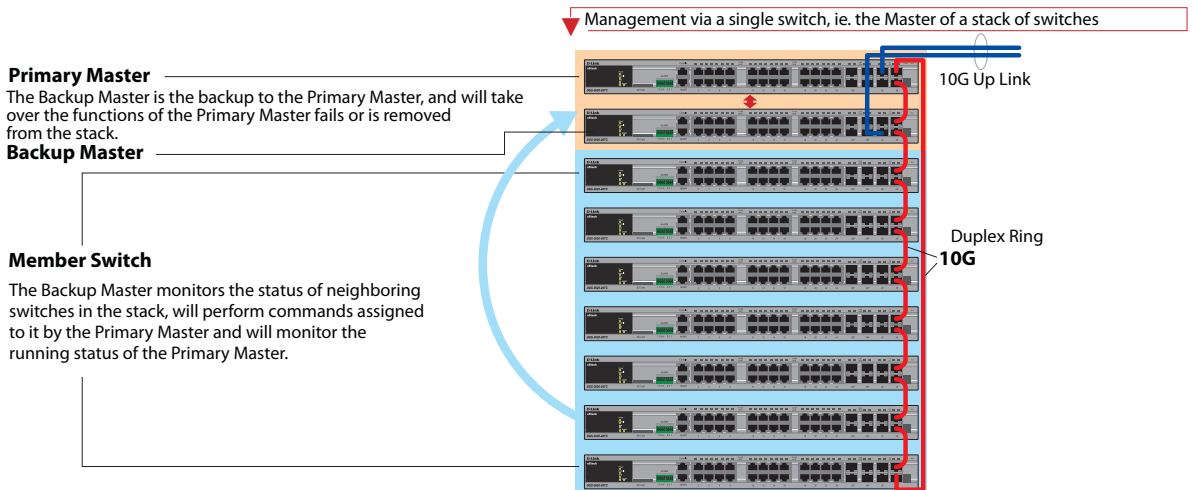
# Physical Stacking Among Switches

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-3600 Series      DGS-3420 Series
- DXS-3400 Series      DGS-3120 Series
- DGS-3630 Series      DGS-1510 Series

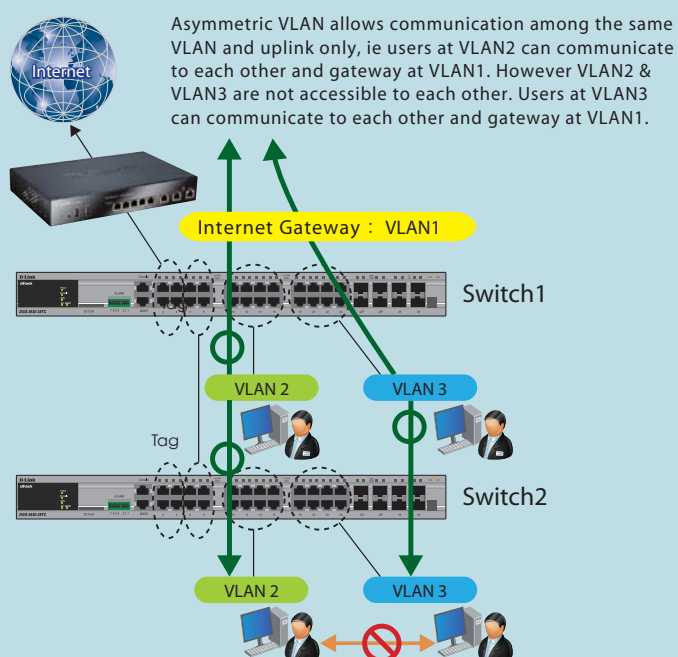
\* All models above support physical stacking on the 10G SFP+ Slots via 10G Direct Attach Cable (DEM-CB100S/DEM-CB300S/DEM-CB700S), except DGS-3120 Series where special stacking cables are needed. Please refer to page 59 for details.



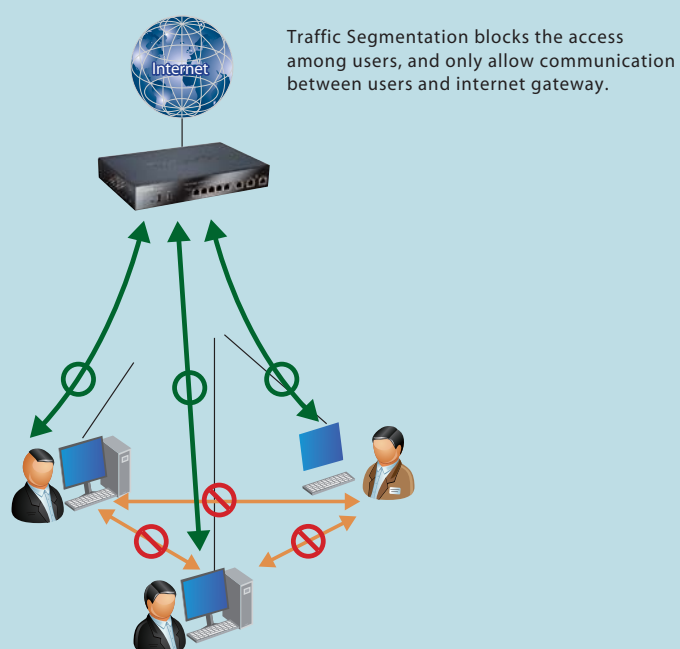
# D-Link Ethernet Switching Solution for Hotels and Service Apartments

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



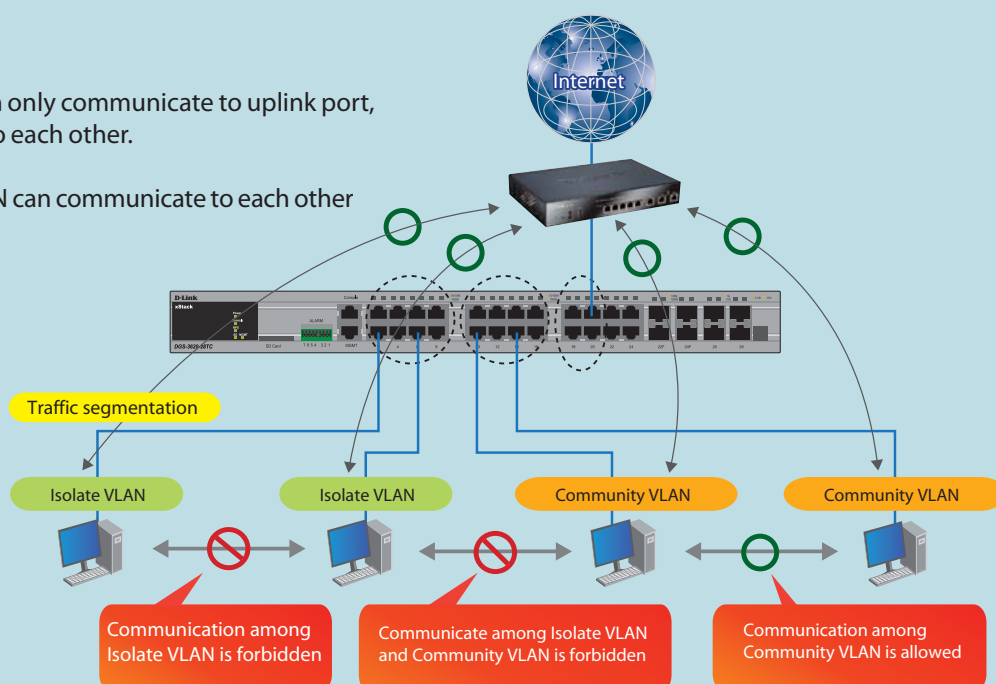
## Traffic Segmentation



## Private VLAN

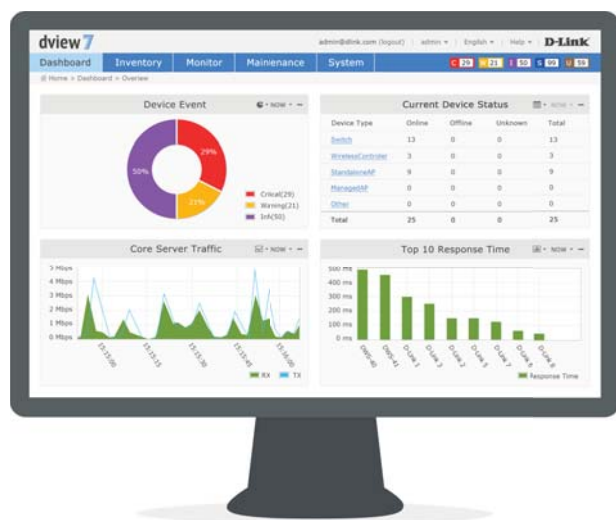
Users at Isolate VLAN can only communicate to uplink port, they are not accessible to each other.

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



# D-View 7

## Network Management System (NMS)



The D-View 7 Network Management System (DV-700) is a comprehensive standards-based management tool designed to centrally manage, in a consistent manner, critical network characteristics such as availability, reliability, resilience and security. Flexible and versatile, D-View 7 uses cutting-edge web technology to provide a comprehensive software toolbox that can be accessed without the need to install separate software.

### Flexible Architecture

D-View 7 is organised into a server-probe architecture, which simplifies data collection across complex networks. Monitoring and configuring multiple devices at remote locations, across the Internet, or using Network Address Translation (NAT) methodology is no longer an issue. With D-View 7, remotely deployed probes will automatically tunnel home, allowing for the management of devices that cannot be directly accessed using standard Simple Network Management Protocol (SNMP). When a device is selected for management, D-View 7 probes will relay the command to the devices and then report back its data to the D-View 7 server.

### Simplify Network Management

D-View 7 supports various predefined configuration templates which help users easily manage multiple devices. For complex configurations, D-View 7 also has the ability to deploy Command Line Interface (CLI) scripts across multiple devices simultaneously. This allows D-View 7 to support a wide range of configuration features and virtually any device as long as it supports CLI settings. With a highly customisable scheduling system, D-View 7 allows users to assign tasks to be issued in off-peak hours or any other planned-maintenance time frame. Users thus have peace of mind, knowing that routine maintenance tasks and configurations will be automatically managed and monitored by D-View 7's event notification system. D-View 7 also supports periodic tasks which can be run daily, weekly, monthly or to some other set schedule.

### Key Series Features

- Simplify management tasks
- Supports SNMP v1, v2c, v3
- Supports device auto-discovery
- Supports scheduled and periodic task management
- Supports event notification and event escalation
- Supports SNMP trap and syslog collection
- Supports batch configuration and is capable of configuring multiple devices at a time
- Flexible architecture
- Designed with a server-and-probe architecture
- Supports management of devices behind a firewall, NAT, or in remote sites without a VPN
- Visualisation
- Easy-to-understand and easy-to-configure dashboard
- Customisable chart system for displaying data
- Supports auto-generate network topology
- Supports real-time device status on topology
- Supports real-time device rack and panel simulation
- Supports smart and managed switches, unified switches, unified access points, wireless controllers, wireless access points, etc
- Supports third-party devices
- Supports third-party device based on SUID and manages them using CLI scripts
- Default comes with 25 Node License and 2 Probe License Free

### Product Highlights

#### Comprehensive Network Management

Manage your network effectively with useful tools and features such as Batch Configuration, SNMP, and Flexible Command Line Dispatch.

#### Hassle-Free Network Management

Graphical and detailed dashboard provides a centralised and convenient way to manage and monitor your network.

#### Extensive Device Support

Supports a large number of devices including smart and managed switches, unified access points, and wireless controllers, as well as non-D-Link devices.

## Manage Third-Party Devices

Network administrators can customise the SOID and related information of virtually any third-party device to let D-View 7 identify and manage them. D-View 7 can then check the health status of those devices, issue CLI commands, and undertake the standard management and monitoring. Combined with the new D-View 7 graphical dashboard, network administrators can get near-real-time feedback on the status of their network.

## Enhanced Trap and Syslog Analysis

D-View 7 also functions as a trap and syslog server which can collect all of the trap or syslog data from multiple devices across a network. This gives network administrators a centralised place to collect important data, which can then be searched easily from within D-View 7. The advanced search system lets network administrators set keyword combinations, and generate alarms based on events that are reported in the trap or syslog feature.

## TECHNICAL SPECIFICATIONS

### GENERAL

Architecture	Supports standard server client web architecture Supports multi-tenant architecture	Supports probe design to collect data from remote site without VPN or behind NAT
User Management	Supports read-write and read-only privileges by modules	
Internationalization	Supported languages: <ul style="list-style-type: none"> <li>English, Simplified Chinese, Traditional Chinese</li> </ul>	

### DISCOVERY

Device Discovery	Supports SNMP v1, v2c, v3 scan Supports IPv4 address range scan	Supports smart scan by neighborhood Supports discover across LAN by probe
Link Discovery	Supports LLDP, FDB based link discovery	
Auto Discovery	Supports periodically discovery with specific time period	

### INVENTORY

Inventory Management	Supports inventory and devices export	Supports device grouping by labels; a device can belong to multiple labels
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### MONITORING

Dashboard	Supports overall system and product summary for wired or wireless devices	Supports customized dashboard
Sensor	Supports following methods to data collection <ul style="list-style-type: none"> <li>SNMP, PING</li> </ul>	
Topology View	Supports auto-topology generation Supports customised topology generation Supports devices status display Supports link status display Supports different structure of topology (tree type, start type)	Supports multi-layer topology for following views Supports customized background image overlay for following views
Panel View	Supports panel and LED status of switches	Supports panel view with stacking switches
Status Polling	Supports multiple polling methods <ul style="list-style-type: none"> <li>Ping, SNMP</li> </ul>	Supports customized polling time for each devices or by group
Event & Notification	Supports customized criteria or threshold to trigger the event based on following rules: <ul style="list-style-type: none"> <li>Value Match</li> <li>Keyword Match</li> <li>Keyword Combination Match</li> </ul>	Supports customized escalation rules Supports email notification to defined users

## Licenses Ordering Information

### Optional Node License

DV-700-N25-LIC	D-View 7 - 25 Node License
DV-700-N50-LIC	D-View 7 - 50 Node License
DV-700-N100-LIC	D-View 7 - 100 Node License
DV-700-N250-LIC	D-View 7 - 250 Node License
DV-700-N500-LIC	D-View 7 - 500 Node License
DV-700-N1000-LIC	D-View 7 - 1000 Node License


### Optional Probe License

DV-700-P5-LIC	D-View 7 - 5 Probe License
DV-700-P10-LIC	D-View 7 - 10 Probe License
DV-700-P25-LIC	D-View 7 - 25 Probe License
DV-700-P50-LIC	D-View 7 - 50 Probe License
DV-700-P100-LIC	D-View 7 - 100 Probe License



# SFP/SFP+ Transceivers


## 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
	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	•	•	•	•


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.

## 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: 550m	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	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	
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°C	-40 to 85°C	-40 to 85°C	-40 to 85°C

\* For Use With DIS-200G Series

# Redundant Power Supplies

Redundancy, in networking terms, is essentially the provision of a back-up system at component level such that an individual failure will not prove critical. Redundant power supplies provide battery back-up power so that, should the mains supply fail, they kick in automatically to keep your switch(es) running and the network fully functional. The RPS you choose will need to be based upon the power draw you might need to call on, dependent on the switch, and any PoE (Power over Ethernet) devices, to which you are looking to provide back-up power. One of the advantages of the DPS-700 is that it is designed to improve flexibility in supporting PoE equipment, and it also supports one-plus-one power capabilities, so when cascading the DPS-700 with a device's internal power supply, the power system can provide an additional power budget to the device.



MODEL	DPS-200A	DPS-500A	DPS-700
Output Power	60 W	140 W	589 W
Input Power	90 to 264 V AC	90 to 264 V AC	90 to 264 V AC
Dimensions	172 x 257 x 43 mm	172 x 257 x 43 mm	441 x 199.4 x 44 mm
Mounting Options (see table below)	DPS-800	DPS-800	19in Rack, 1U

COMPATIBLE SWITCHES	DPS-200A	DPS-500A	DPS-700
DGS-1210-10/20/28/52/12TS/28XS/ME*	•	•	
DGS-1510-52XMP			•
DGS-3000-10L/28L/28LP/28X/28XS/28XMP/52L/52X*		•	
DGS-3120-24TC/24SC	•		
DGS-3120-48TC		•	
DGS-3120-24PC/48PC			•
DGS-3130-30S/30TS/54S/54TS		•	
DGS-3130-30PS/54PS			•
DGS-3420-26SC/28TC/28SC/52T		•	
DGS-3420-28PC/52P			•
DGS-3630-28SC/28TC/52TC		•	
DGS-3630-28PC/52PC			•

\*Require DPS-CB150-2PS v.B1 for connecting DPS-200A/500A and DGS-3000/1210ME Series.



MOUNTING OPTIONS	DPS-800
Number of Redundant Power Supply Slots	2
Form Factor	19in Rack, 1.5U
Compatible with Redundant Power Supplies	DPS-200A, DPS-500A

# Switch Cables & 10GbE Network Interface Cards (NIC)

## InfiniBand Cable Series

These 10G InfiniBand Twinaxial Cables are designed to support high-speed connections on 10 Gbps Ethernet devices when used with compatible D-Link products. They are an ideal solution for cost-effective, high-speed networking connectivity between D-Link switches, and other devices within a rack or in adjacent racks.



### Key Series Features

- Full range of features, including high throughput, low latency, quality of service, failover and fully scalable design
- 10 Gigabit Ethernet connectivity
- Connects with InfiniBand (CX4) latch or screw ports for use as a stacking cable or uplink cable at speeds up to 10 Gbps

## SFP+ Direct Attach Cable Series

The 10G Passive SFP+ Twinaxial Direct Attach Cable is designed to support 10 Gigabit Ethernet or Gigabit Ethernet connections between switches with 10 Gbps Gigabit Ethernet uplink; this is much faster than SFP, which only supports 2.5 Gbps Gigabit Ethernet. This series is suitable for very short distances up to seven metres (23 feet), and is ideal for highly cost-effective networking connectivity between switches and servers within a rack or in adjacent racks.



### Key Series Features

- High speeds and low latency result in faster transmissions than other types of cables
- SFP+ connectors on cable mean no need for expensive SFP+ transceivers and fiber cables
- Lower power consumption than other cables like 10BASE-T or 10GBASE-CX4 means savings on energy usage and costs

## QSFP+ Direct Attach Cable Series

The 40G Passive QSFP+ Twinaxial Direct Attach Cable is a high performance, high bandwidth and cost effective connection solution that supports 40 Gigabit Ethernet, while having lower crosstalk and power consumption than other cables. This makes it an optimal solution for handling high bandwidth transmission within short distances such as within a rack or between racks inside energy-efficient data centers.



### Key Series Features

- QSFP+ (Quad Enhanced Small Form-Factor Pluggable)
- Replace four standard SFP+ cable assemblies, resulting in higher port density, cost efficiency and reduction in power savings compared to standard SFP+

## 120G Passive CXP Direct Attach Cable

The DEM-CB50CXP 120G Passive CXP Twinaxial Direct Attach Cable carries 12 duplex channels of 10 Gbps data, for up to 120 Gbps in total, making it one of the fastest and highest-density interconnection solutions on the market. This cable is designed to support connections for the latest 100 Gbps Gigabit Ethernet and is intended to be used for physical stacking with the D-Link DXS-3600-32S switch's DXS-3600-EMStack module to provide the best possible performance and network reliability.



### Key Series Features

- Supports up to 120 Gbps of bandwidth over 12 channels of 10G Ethernet
- Perfect for handling heavy network traffic and demand
- Meets the 100 Gigabit Ethernet and InfiniBand 12X QDR specifications for superior high-efficiency networking
- Hot-pluggable
- Special latch design enables easy disengagement



MODEL	DEM-CB50CXP	DEM-CB50	DEM-CB100	DEM-CB300
<b>Cable Series Type</b>	CXP Direct Attach	InfiniBand	InfiniBand	InfiniBand
<b>Standard</b>	SFP MSA	IEEE802.3ak 10GBASE-CX4	IEEE802.3ak 10GBASE-CX4	IEEE802.3ak 10GBASE-CX4
<b>Device Rate</b>	120 Gbps	10 Gbps	10 Gbps	10 Gbps
<b>Connector Type</b>	CXP Cable Assembly	Screw-Type at Both Ends	Screw-Type at Both Ends	Screw-Type at Both Ends
<b>Wire AWG</b>	30	28	28	28
<b>Minimum Cable Bend Radius</b>	49 mm			
<b>Cable Length</b>	50 cm	50 cm	100 cm	300 cm
<b>Voltage</b>	30 V AC	30 V AC	30 V AC	30 V AC
<b>Current</b>	0.5 A	0.5 A	0.5 A	0.5 A
<b>Operating Temperature</b>	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
<b>Connectivity</b>	Physical Stacking Cable for DXS-3600-32S Switch's DXS-3600-EM-Stack Module	Physical Stacking Cable or Uplink Cable for DGS-3120 Series	Physical Stacking Cable or Uplink Cable for DGS-3120 Series	Physical Stacking Cable or Uplink Cable for DGS-3120 Series



MODEL	DEM-CB100S	DEM-CB300S	DEM-CB700S	DEM-CB100QXS	DEM-CB300QXS	DEM-CB100QXS-4XS
<b>Cable Series Type</b>	SFP+ Direct Attach	SFP+ Direct Attach	SFP+ Direct Attach	QSFP+ Direct Attach	QSFP+ Direct Attach	QSFP+ Direct Attach to 4 x 10G SFP+ Direct Attach
<b>Standard</b>	SFP MSA	SFP MSA	SFP MSA	SFP MSA	SFP MSA	SFP MSA
<b>Device Rate</b>	10 Gbps	10 Gbps	10 Gbps	40 Gbps	40 Gbps	40 Gbps
<b>Connector Type</b>	SFP+ Cable Assembly	SFP+ Cable Assembly	SFP+ Cable Assembly	QSFP+ Cable Assembly	QSFP+ Cable Assembly	QSFP+ Cable Assembly
<b>Wire AWG</b>	30	30	24	30	30	30
<b>Minimum Cable Bend Radius</b>	23.5 mm	23.5 mm	23.5 mm	32 mm	32 mm	23.5 mm
<b>Cable Length</b>	100 cm	300 cm	700 cm	100 cm	300 cm	100 cm
<b>Voltage</b>	30 V AC	30 V AC	30 V AC	30 V AC	30 V AC	30 V AC
<b>Current</b>	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A
<b>Operating Temperature</b>	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C

## 10GbE Network Interface Cards (NIC)



MODEL	DXE-810T	DXE-820T	DXE-810S
<b>Descriptions</b>	1-Port 10GBASE-T RJ-45 PCIe Adapter	2-Ports 10GBASE-T RJ-45 PCIe Adapter	1-Port 10G SFP+ PCIe Adapter
<b>PCIe Interface</b>	PCI Express x4 2.0, 5 GT/s compliant	PCI Express x8 2.0, 5 GT/s compliant	PCI Express x4 2.0, 5 GT/s compliant
<b>Features</b>	802.3x Flow Control 802.1Q VLAN Tagging TCP/UDP/IP Checksum Offloading	802.3x Flow Control 802.1Q VLAN Tagging TCP/UDP/IP Checksum Offloading 802.3ad Teaming	802.3x Flow Control 802.1Q VLAN Tagging TCP/UDP/IP Checksum Offloading
<b>Jumbo Frame</b>	Up to 16KB	Up to 9KB	Up to 16KB

# 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.

## Chassis-based/Standalone Media Converter Series

MEDIA CONVERTERS	DMC-300SC	DMC-515SC	DMC-530SC	DMC-700SC	DMC-805G	DMC-810SC	DMC-920	DMC-1910
<b>Standards</b>	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
<b>Connectors</b>	SC / RJ45	SC / RJ45	SC / RJ45	SC / RJ45	RJ45 / SFP	SC / RJ45	SC / RJ45	SC / RJ45
<b>Data Rate</b>	100 Mbps	100 Mbps	100 Mbps	1 Gbps	1 Gbps	1 Gbps	100 Mbps	1 Gbps
<b>Fiber Type</b>	Multi-Mode	Single-Mode	Single-Mode	Multi-Mode	Single-Mode / Multi-Mode	Single-Mode	Single-Mode	Single-Mode
<b>Fiber Wavelength</b>	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
<b>Maximum Distance</b>	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
<b>Description</b>	16-Slot Media Converter Chassis with Internal Power Supply	Redundant Power Supply for DMC-1000

## Standalone Media Converter Series

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



# Power over Ethernet (PoE) Adapters

D-Link's Power over Ethernet (PoE) adapters are designed to help simplify network maintenance and deployment at offices, factories and Wi-Fi hot spots. These adapters allow surveillance cameras and wireless access points to be installed on building rooftops, ceilings or high walls where normal AC outlets may be inaccessible, but where the device itself does not have PoE capability.

On the DPE-301GS, the power comes from a PoE port on the switch, down the Ethernet cable, and then this adapter takes that power and provides it to a standard 5 V DC / 12 V DC outlet, into which the device which needs power is plugged. The DPE-301GI acts in a similar way, but is designed to be used for PoE-equipped end-point devices where the switch does not have PoE capability. The DPE-301GI + DPE-301GS is designed for use where the switch does not have any PoE ports. So you plug in an Ethernet cable, and input power at the switch-end of the cable on the DPE-301GI, then run an Ethernet cable (now carrying PoE power) from the DPE-301GI to the DPE-301GS, where the power is then 'converted' back for use by the device.

## DPE-301GS 5/9/12 V DC PoE Splitter



### Main Features

- Use with a PoE switch
- Supply power to non-PoE devices

### Physical Features

- Supports 802.3af (PoE) and 802.3at (PoE+)
- 10/100/1000BASE-T port
- 5 V DC, 9 V DC and 12 V DC output
- Output selection via DIP switch
- DC Jack Dimension: 5.5 x 5.5 mm or 3.8 x 5.5 mm

## DPE-301GI + DPE-301GS 5/9/12 V DC PoE Kit



### Main Features

- Use without a PoE switch
- Supply power to non-PoE devices

### Physical Features

- DPE-301GI x 1
- DPE-301GS x 1

## DPE-301GI 1-Port Gigabit PoE Injector



### Main Features

- Use without a PoE switch
- Supply power to PoE devices

### Physical Features

- Supports 802.3af (PoE) and 802.3at (PoE+)
- Output: 0.6A at 54 V
- 10/100/1000BASE-T port

## DPE-302GE 2-Port Gigabit PoE Extender



### Main Features

- Deliver PoE power over 10/100/1000Mbps connections up to 500 meters
- One PoE input port to dual PoE output ports

### Physical Features

- 802.3af (PoE) and 802.3at (PoE+) Compliant
- PoE+ Data Port (IN): 1 x 10/100/1000BASE-T
- PoE+ Data Port (OUT): 2 x 10/100/1000BASE-T

The DPE-302GE allows a Gigabit Power over Ethernet (PoE) connection to be extended up to 500 meters, by daisy-chaining up to 4 units. It is designed to transmit data and supply up to 30W of power to PoE-capable devices such as PTZ IP cameras, using PoE power source equipment (PSE). It allows PoE devices to be deployed virtually anywhere over longer distances, eliminating the need for a nearby power outlet and attached power supply.

The DPE-302GE can also be used in combination with the DPE-301GS PoE Splitter to power up non-PoE devices over long distances. It is capable of operating in temperatures of up to 60 °C, offering up additional installation options.

The DPE-302GE intelligently communicates the maximum available current with a Powered Device (PD). This protection feature keeps the device safe from damage by preventing it from powering on in case there is not enough current. This safety feature can also automatically disable the port in the event of an electrical short circuit.

\*By just plug and play without additional power supply, a single DPE-302GE can increase the PoE range to 200 meters.

# Business Wireless

Wireless technology provides businesses with a flexible and cost-effective way to send and receive data. D-Link's range of Wireless AC and N products provide stable connectivity which is robust enough to be deployed at the very core of your network. Products under this category include Standalone/Unified/Cloud Access Points, which include Single Band and Dual-Band models.

## Why Choose D-Link?

D-Link Wireless Solutions are engineered to open standards, making them easy to integrate into an existing multi-vendor wired or wireless infrastructure, giving you the flexibility to build your network the way you want.



## Ways to Manage Wireless

### Standalone WiFi

D-Link Standalone Access Points are ideal for SOHO environments, and when combined with D-Link Central WiFiManager (CWM-100), SMB customers can also benefit from D-Link market leading technology:

- Low total cost of ownership
- Multi-layer Management Authority (Multi-Tenancy)
- Multi-site Remote Control behind NAT Router

### Unified WiFi

For larger networks with multiple WiFi Access Points, Unified Management offers many benefits including:

- Layer 2 / 3 Fast Roaming
- Wireless Load Balancing
- Wireless Client Threat Mitigation (WIDS)
- Guest and Captive Portals

### Cloud Managed WiFi

For Small, Medium and Large networks in single or multi-site deployments, D-Link Cloud Managed WiFi offers the ultimate in scalability and flexibility including:

- Zero-touch Configuration
- Manage anywhere, anytime from a browser or iPad app
- No additional on-site hardware
- Flexible billing options

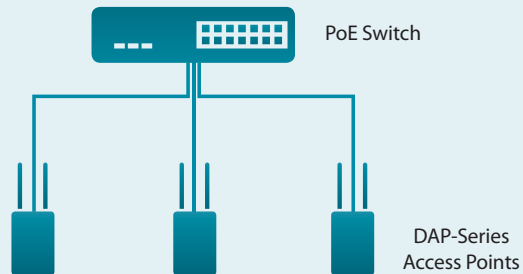


# Which Wi-Fi Solution suits your needs?

## DAP-Series Access Points

### Standalone Operation

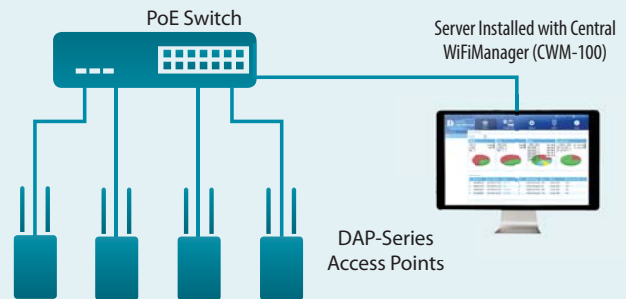
Manage each Access Point individually



### Centralized Management

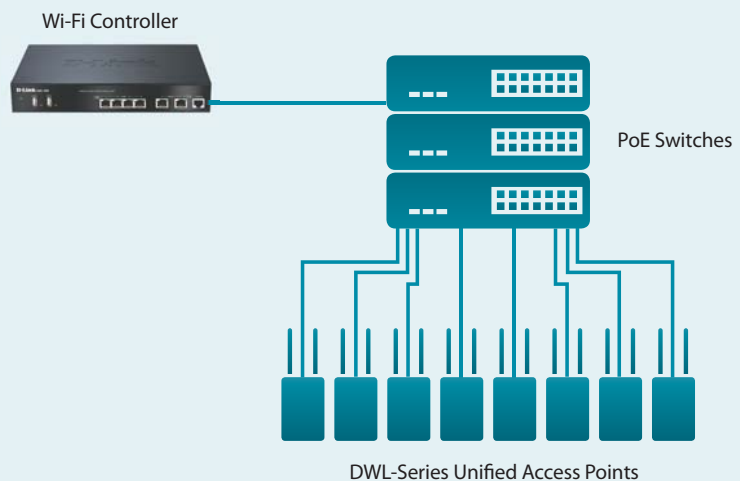
Centrally manage and synchronise configuration of up to 1000 Access Points via CentralWiFi Manager Software (CWM-100)

- Audio Frequency (RF) Management
- Bandwidth optimization
- Captive Portal and access control



## DWL-Series Unified Access Points

- **Hardware Wireless Controller**
- **Wi-Fi Hotspot Ticketing**
- Automatic Channel Adjustment
- Automatic RF Power Adjustment
- Self-Healing Wi-Fi Network
- Centralized Management
- Fast Layer 2/3 Roaming



# D-Link Business Cloud

D-Link Business Cloud Solution is a complete cloud-managed networking solution for SMEs. WiFi coverage and capacity are provided by high-performance APs deployed on-site with centralized cloud-based control and management enabled by D-Link Business Cloud Service Platform.

## Affordable, Easily Expandable Business Wireless Solution

D-Link Business Cloud allows any organization with any level of IT resources to quickly and easily setup, configure, monitor, troubleshoot, and manage a store or multi-site WLAN of any size remotely through web-based and iPad app based user interface.

## Latest 802.11ac Business Access Point

D-Link Business Cloud is paired up with the best-in-class indoor / outdoor access points designed specifically for enterprise environments. With new generation 802.11ac dual-band supporting concurrent 2.4GHz and 5GHz radios, the Business Cloud Access Points offer high combined data rates to wireless clients, allowing for lightning-fast access to bandwidth intensive applications such as data, voice and video.

## Hassle Free Management with D-Link Business Cloud

Designed to be managed through the D-Link Business Cloud, the cloud access points are easily set up with the help of D-Link Business Cloud's intuitive browser-based or mobile app interface. Centralized cloud management allows for zero-touch provisioning, effectively eliminating the need for on-site support, and allowing for plug-and-connect installation.

\* D-Link Business Cloud shall be available in Q2 2018. Please contact D-Link sales person for more information.

## Key Features

### D-Link Business Cloud Management

- Extensive range of management functions can be performed hassle-free from anywhere through the D-Link Business Cloud

### Business-Class 802.11ac Connectivity

- Increase your network capacity with lightning-fast dual-band 802.11ac wireless access points, smart load balancing, and PoE-ready Gigabit Ethernet connectivity

### Revolutionary Energy Efficiency

- The Business Cloud Access Points support Innovative D-Link Green features to help conserve energy without affecting performance, further reducing operating costs and protect the environment

### Enterprise-Ready Security

- Supports WPA/WPA2 Personal and Enterprise, multiple SSID
- Supports captive portal for user access control

## The Core Value of D-Link Business Cloud



Designing quality and reliable cloud managed networking solution by D-Link Internal teams.



Providing small and medium-sized enterprises, service providers and partners with the richest capabilities and smartest technologies at an affordable price.



Developing cloud managed enabled products for any level of IT resources to easily and quickly setup and manage through D-Link Business Cloud. Even 2-3 employees may manage multiple sites.



Providing an extensive solution for small and medium-sized enterprises, service providers and partners to easily and quickly scale the capacity to grow the business and fit into large network.

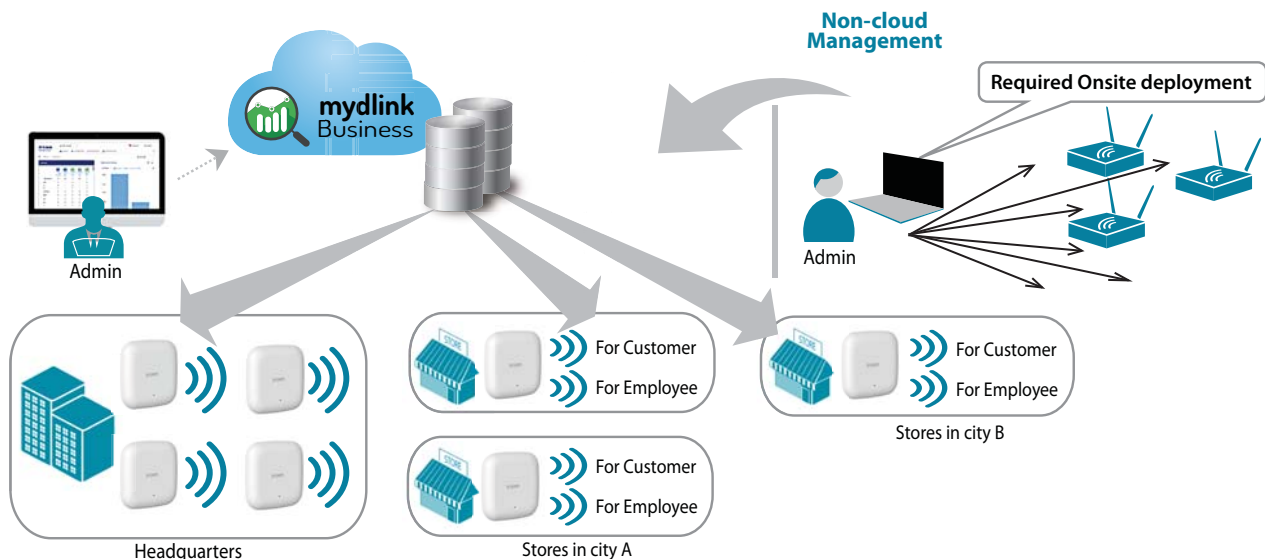
## D-Link Business Cloud Architecture

The D-Link Business Cloud tunes the cloud access point's channel selection, transmit power, and maximum client connections for optimal performance under the most challenging RF conditions. All the cloud access points are to be deployed as a managed access point controlled by the D-Link Business Cloud via internet, thus reducing the time in managing the devices and allowing network administrators to spend more time on providing reliable connectivity. Using the intuitive cloud interface, businesses can easily organize their wireless network, manage multiple APs simultaneously, and monitor live network statistics.



## Zero-Touch Provisioning

The cloud access point will connect to the D-Link Business Cloud to retrieve its configuration settings, meaning it can even be deployed at a remote location without an on-site network administrator, making it more effective compared to traditional access point deployment where onsite management is required.





# D-Link Business Cloud Wireless Access Points

## DBA Series

The Business Cloud Access Point Series is the best-in-class indoor access point designed specifically for enterprise environments. With new generation 802.11ac dual-band concurrent 2.4GHz and 5GHz radios, the access points offer high combined data rates to wireless clients, thus allowing for lightning-fast access to bandwidth intensive applications such as data, voice, and video. The Business Cloud Access Point Series are meant to be deployed as a pre-managed, zero-configuration access point controlled through the D-Link Business Cloud, allowing network administrator to spend more time on providing reliable connectivity and services with less time spent on device management.

### DBA-1210P

Wireless AC1200 Simultaneous Dual-Band PoE Business Cloud Access Point



Wireless AC

- Supports Wireless AC wave 2, up to 1200Mbps
- MU-MIMO technology provides optimum throughput performance
- Maintain a secure network with WPA/WPA2 support
- Zero-touch provisioning
- Centralized cloud-based management
- Supports band-steering and load balancing
- Supports RADIUS client and Cipher negotiation
- IEEE 802.3af Power Over Ethernet (PoE) support

### DBA-1510P

Wireless AC1750 Simultaneous Dual-Band PoE Business Cloud Access Point



Wireless AC

- Harness the power of Wireless AC, enjoying combined wireless speeds of up to 1750 Mbps, perfect for high-demand business applications
- Enhanced dual-band performance with band steering to provide a faster and more stable wireless connection
- Maintain a secure network with a range of features including WPA/WPA2, Wireless LAN partition
- Zero-touch provisioning
- Centralized cloud-based management



MODEL	DBA-1210P	DBA-1510P
<b>WIRED STANDARDS</b>		
10/100BASE-TX		
10/100/1000BASE-T	1	1
<b>WIRELESS STANDARDS</b>		
IEEE 802.11a	•	•
IEEE 802.11b/g	•	•
IEEE 802.11n	•	•
IEEE 802.11ac	•	•
Simultaneous Dual-Band	•	•
<b>OPERATION MODES</b>		
Access Point Mode	•	•
Wireless Client Mode		
Bridge (WDS) Mode		
Bridge with AP Mode		
<b>ANTENNA FEATURES</b>		
Antenna Type	Internal	Internal
Gain	3 dBi for 2.4 GHz 3 dBi for 5 GHz	3 dBi for 2.4 GHz 5 dBi for 5 GHz
<b>AUTHENTICATION FEATURES</b>		
64/128-Bit WEP	•	•
WPA/WPA2-PSK	•	•
WPA/WPA2-EAP	•	•
TKIP/AES	•	•
802.1X User Authentication	•	•
<b>SECURITY FEATURES</b>		
MAC Address Filtering	•	•
SSID Broadcast Disable	•	•
Rogue AP Detection	•	•
WLAN Segmentation	•	•
802.1Q VLAN		
Multiple SSIDs for Network Segmentation	•	•
<b>GROUPING FEATURES</b>		
Load Balancing	•	•
Link Integrity		
User Limit		
<b>QoS FEATURES</b>		
WMM (WiFi Multimedia)	•	•
<b>NETWORKING FEATURES</b>		
Auto-Channel Scan	•	•
<b>MANAGEMENT FEATURES</b>		
SNMP		
D-View 7		
Configuration through Business Cloud	•	•
Telnet	•	•
SSH	•	•
Central WiFiManager		
<b>INSTALLATION FEATURES</b>		
For Outdoor Usage		
802.3af Power over Ethernet (PoE)	•	
802.3at Power over Ethernet (PoE+)		•
PoE Injector Included		

# Why Wireless AC?

## Exclusive Use of the 5 GHz Frequency

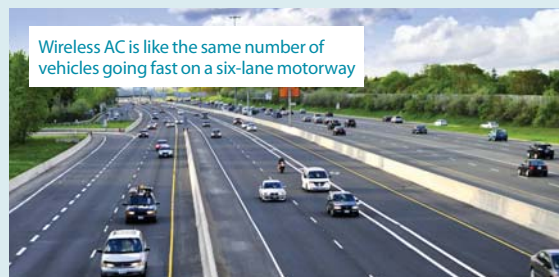
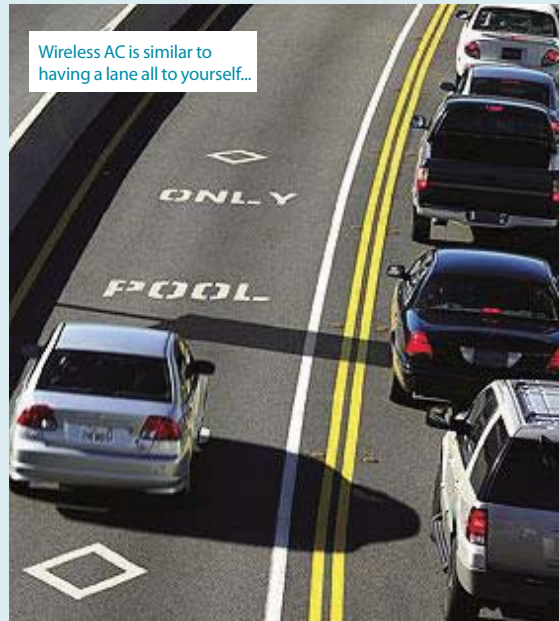
- With so many devices connected to the 2.4 GHz frequency band, interference has reached a point where it can cripple your data flow and speed.
- The 5 GHz frequency band is less common and Wireless AC uses the 5 GHz band exclusively for its transmission. With fewer devices connected, you get less interference and faster speeds.

## Extensibility

- Latest Wireless AC improvements have included standardised 'Beamforming' that synchronises antenna signals to/from the wireless access point for better Wi-Fi performance and range.

## Wider Channel Bandwidth

- Previous wireless standards had bands ranging from 20 MHz to 40 MHz. But with Wireless AC, the band has increased to 80 MHz, meaning a wider band for your data to pass through at faster speeds.
- It also offers non-overlapping and higher bandwidth for higher performance and increased signal reliability.

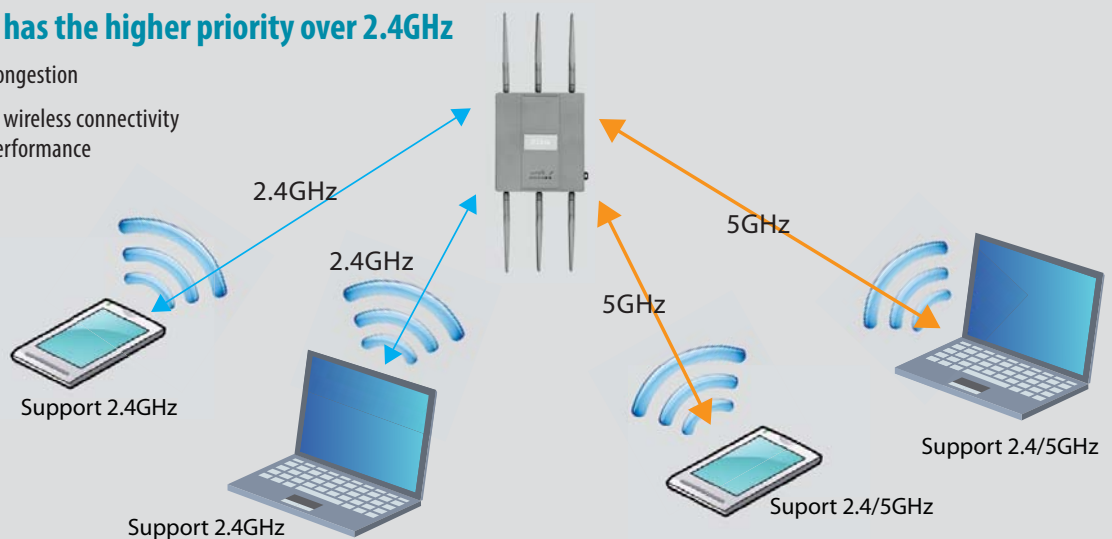


## Band Steering

- A technology that detects whether or not the wireless client is dual-band capable. If yes, it will help to push the client to connect to the less congested 5GHz network by actively blocking the client's attempt to associate with the 2.4GHz network.
- Band steering helps client to achieve their maximum performance by connecting to less congested 5GHz network.

## 5GHz has the higher priority over 2.4GHz

- Less congestion
- Better wireless connectivity and performance



# D-Link Wireless Access Point Range Overview

## Standalone Wireless Access Points (Indoor/Outdoor)



## Unified Wireless Access Points (Indoor/Outdoor)



## Unified Solutions: Wireless Controller



\*DWC-1000 supports 12 Access Points as standard and can be upgraded to 66 Access Points through a license upgrade  
 DWC-2000 supports 64 Access Points as standard and can be upgraded to 256 Access Points through a license upgrade

## Network Adapters



# Standalone Wireless Access Points

## DAP Series

Wireless technology offers businesses flexible and inexpensive ways to send and receive data, cut costs and improve productivity, and D-Link has a range of robust wireless access points that are able to work in both the 2.4 GHz and 5 GHz frequencies. Backwards compatible with all Wi-Fi technologies, our wireless range includes the latest dual-band Wireless AC devices and some models that come with plenum-rated for mounting on walls and ceilings. Robust enough to be deployed at the very core of your network, they give greatly enhanced reliability and coverage, and include advanced security features to keep you completely safe from intrusion.

### DAP-1665

Wireless AC1200 Simultaneous Dual-Band Access Point



Wireless AC

- The dual-band 802.11ac technology delivers combined speeds of up to 1200 Mbps, with increased range to reach more places in your office
- Can operate as an access point, bridge, bridge with access point, repeater or wireless client, giving the flexibility to tailor it to your network needs
- Complete set of security encryption standards including WEP, WPA/WPA2, and WPS to safeguard your network against outside intruders
- Gigabit Ethernet port for the fastest wired speeds

### DAP-1850AC

Wireless AC750 In-Wall PoE Access Point



Wireless AC

- Ideal for small to medium business
- Concurrent dual-band up to 750Mbps
- 2 x Gigabit Ethernet port
- 1 x Telephone Jack for connection to telephone directly
- AP Controller mode supports monitoring and control of up to 6 access points at the same time

### DAP-2230

Wireless N300 PoE Access Point



Central WiFiManager Compatible

- Ideal for indoor deployments
- Four products in one: access point, wireless client, WDS (Wireless Distribution System), WDS with AP
- Fast Ethernet Port and PoE supported

### DAP-2310

Wireless N300 Access Point



Central WiFiManager Compatible

- 802.11n connectivity for increased network capacity
- Up to 300 Mbps wireless speeds
- Five products in one: access point, wireless client, WDS (Wireless Distribution System), WDS with AP, AP Repeater
- Gigabit Ethernet port for the fastest wired speeds
- Multiple SSID for wireless network segmentation
- VLAN support
- Enhanced security with RADIUS support

### DAP-2330

Wireless N300 PoE Access Point



Central WiFiManager Compatible

- Wireless speeds of up to 300 Mbps in 2.4 GHz wireless band
- Four products in one: access point, wireless client, WDS (Wireless Distribution System), WDS with AP
- PoE support for one-cable installation

### DAP-2360

Wireless N300 PoE Access Point



Central WiFiManager Compatible

- High-power single radio design of the antennas reduces dead spots and increases capacity
- Detachable antennas provide optimal wireless coverage in the 2.4 GHz (802.11b/g/n) band
- Up to 300 Mbps wireless speeds
- PoE support for convenient installation
- Allows network administrators to deploy a highly manageable and extremely robust 802.11n wireless network





MODEL	DAP-1665	DAP-1850AC	DAP-2230	DAP-2310	DAP-2330	DAP-2360
<b>WIRED STANDARDS</b>						
10/100BASE-TX			1			
10/100/1000BASE-T	1	2		1	1	1
RJ-11 Telephone Jack		1				
<b>WIRELESS STANDARDS</b>						
IEEE 802.11b/g/n			•	•	•	•
IEEE 802.11a/b/g/n/ac	•	•				
Simultaneous Dual-Band	•	•				
<b>OPERATION MODES</b>						
Access Point Mode	•	•	•	•	•	•
Wireless Client Mode	•		•	•	•	•
Bridge (WDS) Mode	•		•	•	•	•
Bridge with Access Point Mode	•		•	•	•	•
Repeater Mode	•			•		
<b>ANTENNA FEATURES</b>						
Antenna Type	External Detachable	Internal	Internal	External Detachable	Internal	External Detachable
Gain	2 x 3 dBi for 2.4GHz, 5 dBi for 5 GHz	2 x 3.5 & 2.5 dBi for 2.4GHz, 1 x 4.6 dBi for 5 GHz	3 dBi for 2.4GHz	2 x 5 dBi for 2.4GHz	3 dBi for 2.4GHz	2 x 5 dBi for 2.4GHz
<b>AUTHENTICATION FEATURES</b>						
64/128-Bit WEP	•	•	•	•	•	•
WPA/WPA2-PSK	•	•	•	•	•	•
WPA/WPA2-EAP	•	•	•	•	•	•
TKIP/AES	•	•	•	•	•	•
802.1X User Authentication			•	•	•	•
<b>SECURITY FEATURES</b>						
MAC Address Filtering	•	•	•	•	•	•
SSID Broadcast Disable	•	•	•	•	•	•
Rogue AP Detection			•	•	•	•
WLAN Partition	•		•	•	•	•
802.1Q VLAN		•	•	•	•	•
Multiple SSIDs for Network Segmentation		•	•	•	•	•
<b>GROUPING FEATURES</b>						
Load Balancing			•	•	•	•
Link Integrity			•	•	•	•
User Limit	•		•	•	•	•
<b>QoS FEATURES</b>						
WMM (Wi-Fi Multimedia)	•	•	•	•	•	•
<b>NETWORKING FEATURES</b>						
Auto-Channel Scan	•	•	•	•	•	•
<b>MANAGEMENT FEATURES</b>						
SNMP			•	•	•	•
D-View 7				•	•	•
Configuration through AP Array			•	•	•	•
Telnet			•	•	•	•
SSH			•	•	•	•
Central WiFiManager			•	•	•	•
<b>INSTALLATION FEATURES</b>						
For Outdoor Usage						
802.3af Power over Ethernet (PoE)		•	•	•(Optional Part Number)	•	•
PoE Injector Included						

# Standalone Wireless Access Points

## DAP Series

Wireless technology offers businesses flexible and inexpensive ways to send and receive data, cut costs and improve productivity, and D-Link has a range of robust wireless access points that are able to work in both the 2.4 GHz and 5 GHz frequencies. Backwards compatible with all Wi-Fi technologies, our wireless range includes the latest dual-band Wireless AC devices and some models that come with plenum-rated for mounting on walls and ceilings. Robust enough to be deployed at the very core of your network, they give greatly enhanced reliability and coverage, and include advanced security features to keep you completely safe from intrusion.

### DAP-2610

Wireless AC1300 Wave 2 Simultaneous Dual-Band PoE Access Point



Central WiFiManager  
Compatible



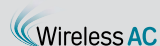
- Supports Wireless AC wave 2, up to 1300Mbps
- MU-MIMO and beamforming technology provides optimum throughput performance
- Maintain a secure network with a range of features including WPA/WPA2, Wireless LAN segmentation and VLAN support
- Configure to use as an access point, a wireless distribution system (WDS) with access point, a WDS/bridge, or a wireless client

### DAP-2660

Wireless AC1200 Simultaneous Dual-Band PoE Access Point



Central WiFiManager  
Compatible



- Harness the power of Wireless AC, enjoying combined wireless speeds of up to 1200 Mbps, perfect for high-demand business applications
- Enhanced dual-band performance with band steering to provide a faster and more stable wireless connection
- Maintain a secure network with a range of features including WPA/WPA2, Wireless LAN segmentation and VLAN support
- Configure to use as an access point, a wireless distribution system (WDS) with access point, a WDS/bridge, or a wireless client

### DAP-2695

Wireless AC1750 Simultaneous Dual-Band PoE Access Point



Central WiFiManager  
Compatible



- Super-fast Wireless AC Performance
- Wireless AC technology backwards compatible with existing Wi-Fi standards
- Flexible simultaneous dual-band technology with band steering that automatically makes use of the less-crowded 5 GHz frequency
- Enhanced network security and access control features, as well as wireless segmentation

### DAP-3320

Wireless N300 PoE Outdoor Access Point



Central WiFiManager  
Compatible

- Single-band 802.11n connectivity
- IP55-rated housing for outdoor deployment
- Supports up to 8 SSIDs
- Enterprise security and management
- Internal and external RADIUS support
- 802.3af Power over Ethernet (PoE) support
- Multiple operation modes, including access point, WDS, WDS with AP, wireless client

### DAP-3662

Wireless AC1200 Simultaneous Dual-Band Outdoor PoE Access Point



Central WiFiManager  
Compatible



- Wireless AC for super-fast performance
- Flexible simultaneous dual-band technology with band steering that automatically makes use of the less-crowded 5 GHz frequency
- IP68-rated housing provides weatherproofing for the most demanding environments
- Multiple operation modes, including access point, wireless distribution system (WDS), WDS with AP, wireless client and WDS/Bridge
- Wall- and pole-mounting hardware included
- 802.3af Power over Ethernet (PoE) support

### DAP-2680

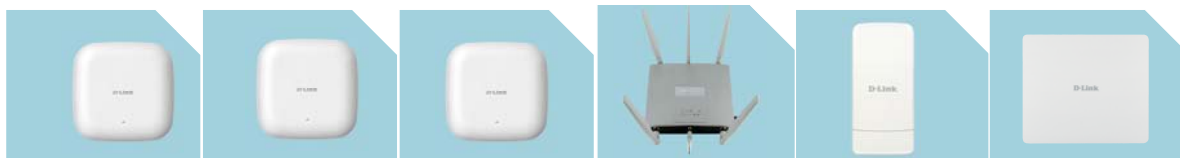
Wireless AC1750 Wave 2 Simultaneous Dual-Band PoE Access Point



Central WiFiManager  
Compatible



- Supports Wireless AC wave 2, up to 1750Mbps
- MU-MIMO and beamforming technology provides optimum throughput performance
- Flexible simultaneous dual-band technology with band steering that automatically makes use of the less-crowded 5 GHz frequency
- Supports Kensington Lock for security purpose
- Enhanced network security and access control features, as well as wireless segmentation



MODEL	DAP-2610	DAP-2660	DAP-2680	DAP-2695	DAP-3320	DAP-3662
<b>WIRED STANDARDS</b>						
10/100BASE-TX					1	
10/100/1000BASE-T	1	1	1	2		2
<b>WIRELESS STANDARDS</b>						
IEEE 802.11a	•	•	•	•		•
IEEE 802.11b/g	•	•	•	•	•	•
IEEE 802.11n	•	•	•	•	•	•
IEEE 802.11ac	•	•	•	•		•
Simultaneous Dual-Band	•	•	•	•		•
<b>OPERATION MODES</b>						
Access Point Mode	•	•	•	•	•	•
Wireless Client Mode	•	•	•	•	•	•
Bridge (WDS) Mode	•	•	•	•	•	•
Bridge with AP Mode	•	•	•	•	•	•
<b>ANTENNA FEATURES</b>						
Antenna Type	Internal	Internal	Internal	External Detachable	Internal	Internal
Gain	3 dBi for 2.4 GHz 3 dBi for 5 GHz	3 dBi for 2.4 GHz 4 dBi for 5 GHz	3.6 dBi for 2.4 GHz 4.2 dBi for 5 GHz	3 x 4 dBi for 2.4 GHz 3 x 6 dBi for 5 GHz	2 dBi for 2.4 GHz	6 dBi for 2.4 GHz 6 dBi for 5 GHz
<b>AUTHENTICATION FEATURES</b>						
64/128-Bit WEP	•	•	•	•	•	•
WPA/WPA2-PSK	•	•	•	•	•	•
WPA/WPA2-EAP	•	•	•	•	•	•
TKIP/AES	•	•	•	•	•	•
802.1X User Authentication	•	•	•	•	•	•
<b>SECURITY FEATURES</b>						
MAC Address Filtering	•	•	•	•	•	•
SSID Broadcast Disable	•	•	•	•	•	•
Rogue AP Detection	•	•	•	•	•	•
WLAN Partition	•	•	•	•	•	•
802.1Q VLAN	•	•	•	•	•	•
Multiple SSIDs for Network Segmentation	•	•	•	•	•	•
<b>GROUPING FEATURES</b>						
Load Balancing	•	•	•	•	•	•
Link Integrity	•	•	•	•	•	•
User Limit	•	•	•	•	•	•
<b>QoS FEATURES</b>						
WMM (WiFi Multimedia)	•	•	•	•	•	•
<b>NETWORKING FEATURES</b>						
Auto-Channel Scan	•	•	•	•	•	•
<b>MANAGEMENT FEATURES</b>						
SNMP	•	•	•	•	•	•
D-View 7	•	•	•	•	•	•
Configuration through AP Array	•	•	•	•	•	•
Telnet	•	•	•	•	•	•
SSH	•	•	•	•	•	•
Central WiFIManager	•	•	•	•	•	•
<b>INSTALLATION FEATURES</b>						
For Outdoor Usage					• (IP55)	• (IP68)
802.3af Power over Ethernet (PoE)	•	•			•	•
802.3at Power over Ethernet (PoE+)			•	•		
PoE Injector Included				•	•	•

# Central WiFiManager

## CWM-100

Central WiFiManager is D-Link's latest free tool to help network administrators streamline their wireless access point management workflow. Central WiFiManager is an innovative approach to the more traditional hardware-based multiple access point management system and uses a centralised server to both remotely manage and monitor wireless access points on a network. Whether deployed on a local computer or hosted on a public cloud service, Central WiFiManager can be easily integrated into existing networks in conjunction with supporting D-Link wireless access points, to help eliminate existing bottlenecks for wireless traffic.

### Extendable, Affordable Business Wireless Solution

Designed from the ground up as a standalone software controller, D-Link's free Central WiFiManager is flexible, robust, and feature-rich. It comes ready to run with many enhanced enterprise wireless access point features to provide a solid wireless network system for customers who need a centralised management controller. Central WiFiManager can be deployed onto a server running Microsoft Windows<sup>1</sup> and can manage up to 1000 APs<sup>2</sup> without any license charges. Central WiFiManager supports a range of D-Link Access Points, as shown on the right.

### Robust Security and Management Tools

Central WiFiManager supports multi-site deployment management as well as multi-tenancy management. This allows network administrators to provide different authorities between head and regional offices, and allows service providers to offer a managed wireless network for their customers. Sites can be logically separated with their own configuration, access security, network map, and statistics. For example, a network operations manager could pre-configure APs before dispatching them to regional offices. He can then manage all of the APs on an enterprise intranet, while allowing local administrators to manage only theirs.

## Key Features

### Web-Based Management

- Software controller that can be installed on a Microsoft Windows computer<sup>1</sup> and accessed through any device with a web browser

### Multi-Site Management

- Multiple distributed sites can be managed from a central location
- The multi-tenant architecture provides multi-layer management authority

### NAT Pass-Through

- Controllers can manage wireless access points in remote locations even if they are behind a NAT device (router or firewall)

### Captive Portal and Access Control

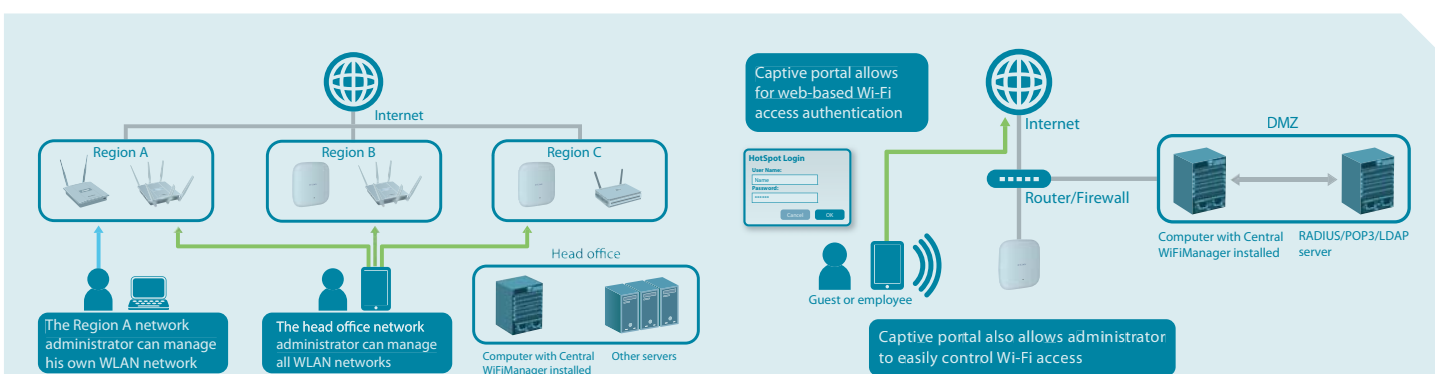
- Supports local DB, external RADIUS, LDAP, POP3 and Wi-Fi passcode authentication
- Supports user access control

### Auto Radio Frequency (RF) Management

- Supports automatic channel and output power optimisation

### Bandwidth Optimisation

- Optimises wireless bandwidth



For wireless access, D-Link SMB APs can support 8 SSIDs per radio, which means administrators can use one SSID to create a guest network for visitors. Central WiFiManager expands on that built-in feature and allows for multiple user authentications. Access controls can be configured per SSID as well, allowing network administrators to configure separate internal networks for different subnets. This means that more advanced value-added services such as a captive portal or Wi-Fi hotspot can be used to

help manage traffic. Unlike traditional hardware controller solutions for managing wireless APs, Central WiFiManager has a much lower initial investment cost as there are no per-AP license charges. With the simple-to-use installation tool, it is easy to expand the wireless network in the future. Adding devices to Central WiFiManager is done automatically when new access points are discovered on the network, allowing new devices to be quickly managed and deployed. Central WiFiManager also automatically

manages RF output for multiple access points, optimising the number of available wireless channels and coverage. This results in reduced channel interference and provides faster total bandwidth throughput and connection reliability. By optimising the coverage area and connection quality, Central WiFiManager enables network administrators to provide a better wireless service at a lower deployment cost, resulting in a higher return on investment.

WIRELESS ACCESS POINTS COMPATIBLE WITH CENTRAL WiFiMANAGER

	11AC DUAL BAND					11N SINGLE BAND				
<b>MODEL</b>	<b>DAP-2610</b>	<b>DAP-2660</b>	<b>DAP-2680</b>	<b>DAP-2695</b>	<b>DAP-3662</b>	<b>DAP-2230</b>	<b>DAP-2310</b>	<b>DAP-2330</b>	<b>DAP-2360</b>	<b>DAP-3320</b>
<b>Indoor/Outdoor</b>	Indoor	Indoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Outdoor
<b>H/W Version</b>	A1	A1	A1	A1	A1	A1	B1	A1	B1	A1
<b>IEEE Standard</b>	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11b/g/n	802.11b/g/n	802.11b/g/n	802.11b/g/n	802.11b/g/n
<b>2.4 GHz Speed</b>	400 Mbps	300 Mbps	450 Mbps	450 Mbps	300 Mbps	300 Mbps	300 Mbps	300 Mbps	300 Mbps	300 Mbps
<b>5 GHz Speed</b>	867 Mbps	867 Mbps	1300 Mbps	1300 Mbps	867 Mbps					
<b>Number of SSIDs</b>	16 (8 per radio)	16 (8 per radio)	16 (8 per radio)	16 (8 per radio)	16 (8 per radio)	8	8	8	8	8
<b>Ethernet Interface</b>	1 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet	2 x Gigabit Ethernet	2 x Gigabit Ethernet	1 x Fast Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Fast Ethernet
<b>PoE Standard</b>	802.3af (PoE)	802.3af (PoE)	802.3at (PoE +)	802.3at (PoE +)	802.3af (PoE)	802.3af (PoE)	802.3af (PoE) (Optional Part Number)	802.3af (PoE)	802.3af (PoE)	802.3af (PoE)
<b>Antenna Type</b>	Internal	Internal	Internal	External	Internal	Internal	External	Internal	External	Internal
<b>Antenna Gain</b>	2.4 GHz: 3 dBi 5 GHz: 3 dBi	2.4 GHz: 3 dBi 5 GHz: 4 dBi	2.4 GHz: 3.6 dBi 5 GHz: 4.2 dBi	2.4 GHz: 4 dBi 5 GHz: 6 dBi	2.4 GHz: 6 dBi 5 GHz: 6 dBi	2.4 GHz: 3 dBi	2.4 GHz: 5 dBi	2.4 GHz: 3 dBi	2.4 GHz: 5 dBi	2.4 GHz: 2 dBi
<b>Mounting Type</b>	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Wall/Desktop	Wall/Pole	Ceiling/Wall/Desktop	Wall/Desktop	Ceiling/Wall/Desktop	Wall/Desktop	Wall/Pole
<b>PoE Kit in Package</b>				•	•					•

TECHNICAL SPECIFICATIONS

### WLAN Management

Maximum APs per Device (Controller)	1000 <sup>2</sup>
WLAN Management Features	AP Grouping, Multi-Tenancy, Visualised Topology, NAT Pass-Through
AP-Controller Connection Mode	Bridge Mode

### USER AUTHENTICATION

Guest Portal	Captive Portal
Authentication Method	Local, POP3, RADIUS, LDAP, Voucher
Hotspot Features	Built-in Support for Voucher-Based Authentication Built-in Hotspot Manager for Voucher Creation and Guest Management Rate limiting and bandwidth control for guest and hotspot portal

### WIRELESS FEATURES

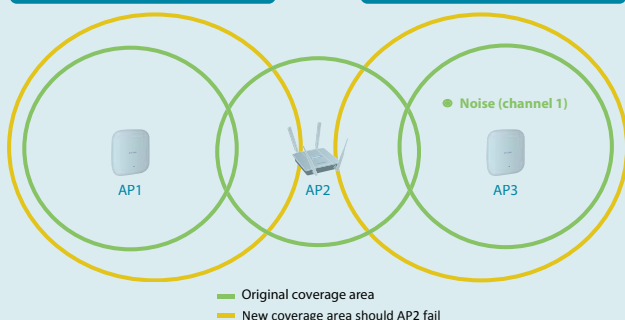
RF Management and Control	Auto Output Power Control, Auto Channel, Self-Healing Around Failed APs
Multiple SSIDs per Radio(AP)	8
Advanced Wireless Features	Band steering, L2 roaming, Bandwidth Optimisation
WIDS System	Rogue AP Detection

### SYSTEM MANAGEMENT

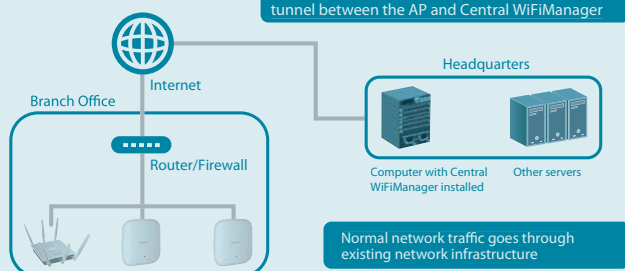
Management Interface	Web-Based User Interface
Minimum System Requirements	Computer running Microsoft Windows 7 or Windows Server 2008/2012
Online Check	Firmware, Module
Scheduling	Firmware Update, Configuration Update

AP1 and AP3 increase output power to cover for AP2 if it should fail

AP3 changes to channel 11 after detecting interference on channel 1



Management traffic goes through a proprietary tunnel between the AP and Central WiFiManager



Deploying Central WiFiManager is also much simpler compared to traditional hardware controller solutions as it can be installed on any server running a recent version of Microsoft Windows<sup>1</sup>. Central WiFiManager software operates transparently on the network, meaning the access point can be deployed anywhere in a customer's Layer-2/3 environment. Management traffic to and from the target access points will go through an authorised tunnel to Central WiFiManager while normal network traffic will go through the existing networking infrastructure unimpeded. The Central WiFiManager management interface is also remotely accessible via its built-in web server, so administrators can use a web browser to connect to computers with Central WiFiManager installed to manage their WLAN network and wireless access points from anywhere.

**FREE**  
with selected  
D-Link Access  
Points

<sup>1</sup> Supported Operating Systems: Microsoft Windows 7 or Windows Server 2008/2012.  
<sup>2</sup> Number of wireless access points supported depends on the specification of the computer on which Central WiFiManager is installed. To support 500 APs, a computer with at least an Intel Core i5 3.2 GHz with 4 GB RAM and 2 TB hard drive is recommended.



# Unified Wireless Access Points

## DWL Series

D-Link's Unified Wireless Access Points are highly manageable and scalable with high data transmission speeds, optional support for Power Over Ethernet and advanced security features.

### Managed Mode

- Centralised management/firmware dispatch
- Auto-power adjustment
- Layer 2/3 Fast roaming
- Captive portal

### Standalone Mode

- Rogue AP detection, Station isolation
- MAC address filtering, Auto-channel selection
- AP load balancing set-up, AP Clustering
- Wi-Fi Multimedia (WMM)

#### DWL-2600AP

Unified Wireless N300 PoE Access Point



- Self-configuring cluster allows easier provisioning (up to 8 units)
- Load balancing to optimise high network traffic volume and redundancy

#### DWL-3610AP

Unified Wireless AC Selectable Dual-Band PoE Access Point



Wireless AC

- Load balancing to optimise high network traffic volume and redundancy
- Selectable dual-band (2.4 GHz @ 300Mbps or 5 GHz @ 867Mbps)

#### DWL-6610AP (B1) / DWL-6610APE

Unified Wireless AC1200 Simultaneous Dual-Band PoE Access Point



Wireless AC

- Flexible Quality of Service(QoS) with WMM
- 802.3af PoE enables installation in hard-to-reach locations

#### DWL-6620APS

Unified Wireless AC1300 Wave 2 Dual-Band PoE Access Point



Wireless AC

- 802.11ac Wave 2 AC1300
- Supports MU-MIMO
- Smart Antennas technology allows dynamically changing the direction of the antennas in which the energy is radiated, that delivers great WiFi performance in high density environment, mitigate RF interference.

#### DWL-6700AP

Unified Simultaneous Dual-Band PoE Outdoor 5GHz Bridging Access Point



- 5 GHz directional high-gain antennas deliver extended coverage via WDS connections
- 2.4 GHz omnidirectional antennas provide local Wi-Fi access
- All-in-one plastic enclosure with pole-mount simplifies outdoor deployment, remote reset button via PoE injector for hassle-free reboots

#### DWL-7620AP

Unified Wireless AC2200 Wave 2 Tri-Band PoE Access Point



Wireless AC

- 802.11ac Wave 2 AC2200
- Tri-band (2.4GHz + 5GHz + 5GHz)
- MU-MIMO can serve multiple wireless clients simultaneously and utilizes the spectrum more efficiently

#### DWL-8610AP

Unified Wireless AC1750 Simultaneous Dual-Band PoE Access Point



Wireless AC

- Wireless speeds of up to 1750 Mbps
- Enhanced dual-band performance with band steering
- AC SmartBeam™ technology greatly improves wireless performance by focusing wireless signals, providing wider wireless coverage without the need for additional access points.

#### DWL-8710AP

Unified Wireless AC1200 Simultaneous Dual-Band Outdoor PoE Access Point



Wireless AC

- Concurrent dual-band (2.4 GHz and 5 GHz)
- Flexible deployment – stand-alone or centrally managed by a wireless controller
- IP67-compliant housing for harsh weather
- Flexible Wi-Fi QoS schemes
- Automatic Radio Frequency (RF) Management



MODEL	DWL-2600AP	DWL-3610AP	DWL-6610AP (B1)/ DWL-6610APE	DWL-6620APS	DWL-6700AP	DWL-7620AP	DWL-8610AP	DWL-8710AP
<b>WIRELESS STANDARDS</b>								
IEEE 802.11a		•	•	•	•	•	•	•
IEEE 802.11b/g/n	•	•	•	•	•	•	•	•
IEEE 802.11ac		•	•	•	•	•	•	•
Simultaneous Dual-Band			•	•	•	•	•	•
<b>WIRED STANDARDS</b>								
10/100BASE-TX	1				2			
10/100/1000BASE-T		1	1	2		2	2	2
<b>OPERATION MODES</b>								
AP Mode	•	•	•	•	•	•	•	•
Bridge (WDS) Mode	•	•	•	•	•	•	•	•
<b>ANTENNA FEATURES</b>								
Antenna Type	Internal	Internal	Internal (DWL-6610AP) External (DWL-6610APE)	Internal	Internal	Internal	Internal	External
Gain	3 dBi for 2.4 GHz	3 dBi for 2.4 GHz 3 dBi for 5 GHz	3.5 dBi for 2.4 GHz 5 dBi for 5 GHz (DWL-6610AP) 3 dBi for 2.4 GHz 4 dBi for 5 GHz (DWL-6610APE)	4 dBi for 2.4 GHz 6 dBi for 5 GHz	3 dBi for 2.4 GHz 5 dBi for 5 GHz	4 dBi for 2.4 GHz 5 dBi for 5 GHz	5 dBi for 2.4 GHz 6.5 dBi for 5 GHz	5 dBi for 2.4 GHz 7 dBi for 5 GHz
<b>AUTHENTICATION FEATURES</b>								
64/128-Bit WEP	•	•	•	•		•	•	•
WPA/WPA2-PSK	•	•	•	•	•	•	•	•
WPA/WPA2-EAP	•	•	•	•	•	•	•	•
TKIP/AES	•	•	•	•	•	•	•	•
802.1X User Authentication	•	•	•	•		•	•	•
<b>SECURITY FEATURES</b>								
MAC Address Filtering	•	•	•	•	•	•	•	•
SSID Broadcast Disable	•	•	•	•	•	•	•	•
Rogue AP Detection	•	•	•	•		•	•	•
802.1Q VLAN	•	•	•	•	•	•	•	•
Multiple SSIDs for Network Segmentation	•	•	•	•	•	•	•	•
<b>GROUPING FEATURES</b>								
Load Balancing	•	•	•	•	•	•	•	•
Link Integrity Monitoring	•	•	•	•		•	•	
<b>QoS FEATURES</b>								
WMM (WiFi Multimedia)	•	•	•	•	•	•	•	•
<b>NETWORK FEATURES</b>								
Auto-Channel Scan	•	•	•	•	•	•	•	•
Auto-Power Adjustment	•	•	•	•	•	•	•	•
<b>MANAGEMENT FEATURES</b>								
SNMP	•	•	•	•		•	•	
D-View 7	•						•	
AP Clustering	•	•	•				•	•
Telnet	•	•	•	•		•	•	•
SSH	•	•	•	•	•	•	•	•
Management via Wireless Controller	•	•	•	•	•	•	•	•
<b>INSTALLATION FEATURES</b>								
Indoor/Outdoor	Indoor	Indoor	Indoor	Indoor	Outdoor (IP-55 rated)	Indoor	Indoor	Outdoor (IP-67 rated)
Plenum rated (UL-2043)			• (Optional Part Number)	•		•	•	•
Power over Ethernet (PoE)	802.3af	802.3af	802.3af	802.3at	Non-Standard PoE	802.3at	802.3at	802.3at
PoE Injector Included					•			

# Unified Wireless Controllers

## DWC Series

The DWC Series of wireless controllers is designed for centralised wireless LAN management, developed specifically for businesses, education and medium-to-large enterprises that are looking for an easy-to-use, scalable solution to manage and configure their wireless network(s).

With the ability to manage up to 12 wireless access points (upgradable to 66), the DWC-1000 is a cost-effective mobility solution for businesses. Its auto-managed AP discovery and single-point management allows you to establish an enterprise-class system without the burden of executing massive and complex configurations. With a robust and comprehensive security detection system, the DWC-1000 also enables managed APs to block potential attacks from unauthorised users and devices, especially for wireless environments.

Its bigger brother, the DWC-2000, has the ability to manage up to 64 (upgradable to 256) wireless access points, is suitable for medium- to large-scale deployments. It also features auto-managed AP discovery and single-point management, and the guest account generation function manages guest users' bandwidth and accessibility to network resources. Again, the robust and comprehensive security detection system manages associated APs by blocking potential attacks from unauthorised users and appliances, which is particularly crucial in wireless environments.



## Principle Product Features

### DWC-1000

- 10/100/1000BASE-T LAN ports x 4
- 10/100/1000BASE-T (WAN/DMZ) option ports x 2
- USB 2.0 ports x 2
- RJ-45 Console port
- Manage up to 12 access points (by default)
- Upgradable to 66 access points

### DWC-2000

- 10/100/1000BASE-T/SFP Combo ports x 4
- USB 2.0 ports x 2
- RJ-45 Console port
- Manage up to 64 access points (by default)
- Upgradable to 256 access points

## Optional Accessories

### Upgrade licenses:

DWC-1000-AP6-LIC	DWC-1000 Additional 6 Access Points Support License
DWC-1000-AP18-LIC	DWC-1000 Additional 18 Access Points Support License
DWC-1000-VPN-LIC	DWC-1000 VPN/Router/Firewall License
DWC-1000-WCF-12-LIC	DWC-1000 1 Year Web Content Filtering License
DWC-2000-AP32-LIC	DWC-2000 Additional 32 Access Points Support License
DWC-2000-AP64-LIC	DWC-2000 Additional 64 Access Points Support License
DWC-2000-AP128-LIC	DWC-2000 Additional 128 Access Points Support License

### Optional Management Software

DV-700	D-View 7 Network Management System for DWC-2000
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## Key Series Features

- Integrated appliance for centralised wireless network management
- Integrates seamlessly in any network infrastructure – no modifications required
- An ideal solution to move to Wireless N or Wireless AC from legacy technologies
- Upgrade licenses – pay only for the functionality that you need
- Dynamic wireless network adjustment to ensure top performance at all times
- Can be connected directly to the Internet – ideal for branch offices
- Upgrade licenses available on DWC-1000 for extra VPN and firewall functionality
- Easy-to-use web interface and straightforward configuration
- USB ports for configuration backup and restore
- Enhanced security with captive portal and RADIUS support



MODEL		DWC-1000	DWC-2000
Interfaces	Ethernet	10/100/1000BASE-T Option (WAN/DMZ) Ports 10/100/1000BASE-T LAN Ports Combo 10/100/1000BASE-T/SFP Ports	2 <sup>1</sup> 4 4
	USB 2.0 Ports	2	2
	RJ45 Console Port	•	•
	Maximum Access Points per Unit (Default/Upgrade)	12 / 66 <sup>2</sup>	64 / 256 <sup>2</sup>
Capacity and Performance	Concurrent Captive Portal Authentication Users	124 / 400 (Wired/ Wireless)	3072
	Dedicated SSL VPN Tunnels <sup>3</sup>	20	
	Dedicated IPsec VPN Tunnels <sup>3</sup>	70	
	Dedicated PPTP/ L2TP VPN Tunnels <sup>3</sup>	16	
Access Point Management	AP Discovery & Control	Layer-2 and Layer-3	Layer-2 and Layer-3
	AP Monitoring	Managed AP Rogue AP Authentication Fail AP Standalone AP	Managed AP Rogue AP Authentication Fail AP Standalone AP
	Client Monitoring	Authenticated Client Rogue Client Authentication Fail Client Ad-Hoc Client	Authenticated Client Rogue Client Authentication Fail Client Ad-Hoc Client
	Centralised RF/Security Policy Management	•	•
Roaming	Fast Roaming	•	•
	Intra-Controller / Inter-Controller Roaming	•	•
	Intra-Subnet / Inter-Subnet Roaming	•	•
Security	Wireless Security	WEP Dynamic WEP WPA Personal/ Enterprise WPA2 Personal/ Enterprise	WEP Dynamic WEP WPA Personal/ Enterprise WPA2 Personal/ Enterprise
	Wireless Intrusion Detection & Prevention System (WIDS)	Rogue and Valid AP Classification Rogue AP Mitigation	Rogue and Valid AP Classification Rogue AP Mitigation
	LAN Security	802.1x Port-Based Access Control and Guest VLAN	802.1x Port-Based Access Control and Guest VLAN
	Authentication	Captive Portal MAC Authentication	Captive Portal MAC Authentication
VLAN	VLAN Group	255 Static	255 Static
	802.1q VLAN Tagging	•	•
	Subnet-Based VLAN	•	•
	Port-Based VLAN	•	•
Firewall System <sup>3</sup>	Policy	Each Feature Supports 100 Rules Supports up to 600 Firewall Rules	
	Dynamic Route	RIPv1, RIPv2	
	Dynamic DNS	•	
	NAT, PAT	•	
	Web Content Filtering	Static URL Keywords	
Networking <sup>3</sup>	Route Failover	•	
	Outbound Load Balancing	•	
Virtual Private Network (VPN) <sup>3</sup>	Encryption Methods	DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL	
	IPsec NAT Traversal	•	
	Dead Peer Detection	•	
	IP Encapsulating Security Payload (ESP)	•	
	IP Authentication Header (AH)	•	
	VPN Tunnel Keep Alive	•	
SSL Virtual Private Network (SSL VPN) <sup>3</sup>	Hub and Spoke	•	
	SSL Encryption Methods	DES, 3DES, AES	
System Management	SSL Message Integrity	MD5, SHA1	
	Web-Based User Interface	HTTP	HTTP
	Command Line Interface	•	•
	SNMP	v1, v2c, v3	v1, v2c, v3
Physical & Environment	Power Supply	Internal	Internal
	Maximum Power Consumption	19.3 W	26.95 W
	Dimension	180 x 280 x 44 mm	440 x 310 x 44 mm
	Operating Temperature	0°C to 40°C	0°C to 40°C
Operating Humidity	5% to 95% RH Non-Condensing	5% to 95% RH Non-Condensing	

<sup>1</sup>The Option1 port is for connection to a backbone. After activating the DWC-1000-VPN-LIC license, the Option1 port will act as a WAN port for connecting to a cable or DSL modem; and the Option2 port can serve as a WAN or DMZ port for dual WAN connections or internal Server Farm purposes.

<sup>2</sup>The number of managed APs can be increased through purchase of license upgrades.

<sup>3</sup>Features enabled through purchase of the VPN/Router/Firewall license upgrade on DWC-1000.

# DUA-2000

## Access Control Server

The D-Link DUA-2000 Access Control Server is an authentication server that is capable of managing user credentials, access control and security requirements for a variety of devices and applications in enterprise networks. It is a standards-based access control server that complies with RFC-2865 and RFC-2866 to significantly enhance the security and manageability of enterprise-grade networks.

From small and medium-sized deployments to educational institutions and government agencies, the robust and reliable DUA-2000 is the ideal Authentication, Authorization, and Accounting (AAA) RADIUS server solution. It delivers scalable authentication control, robust access policy management, and centralized captive portal management with the performance required in wireless access point applications such as public Wi-Fi hotspots to serve thousands of concurrent users.

The DUA-2000 allows a network administrator to seamlessly integrate it into an existing authentication server in a live environment, for compatibility and interoperability among different vendors. It is designed to work with legacy systems that utilize RADIUS, POP3, or LDAP servers, and is recommended for both new and existing installations. The DUA-2000 is a value-added enterprise access and policy control server that can provide secure access for wired, wireless, and VPN networks. Apart from user name and password authentication, it is capable of leveraging user and device ID information in usage scenarios to create flexible policies that provide customized privileges for guest clients while extending network access and security management capabilities.

### Key Series Features

#### CENTRALIZED ACCOUNT MANAGEMENT

- Dynamically assign privileges based on who, where, when and what your client is doing on the network for improved BYOD security

#### CAPTIVE PORTAL SERVER

- Redirect clients to a central landing page for user name and password authentication prior to providing network and internet access

#### RADIUS SERVER FEATURE

- MAC address authentication
- 802.1x port-based authentication
- SSL VPN authentication
- IPSec/PPTP/L2TP VPN authentication

#### HIGH AVAILABILITY

- Active-standby redundancy
- Failover/Fallback



MODEL		DUA-2000
Interfaces	Ports	4 x 10/100/1000BASE-T or SFP Combo Ports
	USB Port	2 x USB 2.0 Ports
	Console Port	1 x RJ-45 Console Port
System Performance	HDD	256GB SSD
	Local User Database	10,000 entries
	Sessions Per Second	100
RADIUS Server Features	MAC Address Authentication	•
	802.1x Port-Based Authentication	•
	WPA/WPA2 Enterprise	•
	Captive Portal Authentication	•
	IPSec / PPTP / L2TP VPN Authentication	•
SSL VPN Authentication	•	
Physical & Environmental	Dimension (W x D x H)	440 x 310 x 44 mm
	Operating Temperature	0 to 40 °C
	MTBF	291,741 Hours
	Max Power Consumption	26.95 W
	Power Supply	Internal



# D-Link Wireless Solutions for Education

Today, education is about mobile learning and Bring Your Own Device (BYOD). Students and faculty expect immediate access with a seamless connection to the campus network anytime and everywhere, often with 2 or 3 wireless devices at once. In virtually every academic classroom, nearly all educators have online components to their curriculum.

In a high-density learning environment, hundreds of people are trying to connect to the network at the same time. And everyone is eating up more bandwidth than ever before, exceeding the capacity of your existing network.

You know that it's critical for everyone to have a fast, reliable, and secure connection to the campus network. One failure to connect wirelessly is one too many. With your IT budget stretched thin, the expectation to provide unified coverage for everyone, everywhere may seem insurmountable.



## Unified Wireless Solution

DWC-2000 & DWL-8610AP

Working together as a unified solution the DWC-2000 Unified Wireless Controller and DWL-8610AP Access Point consolidate the security, manage the bandwidth and maintain the intelligence of your entire wireless network.

Complete with an array of advanced features and 802.11ac support, each DWC-2000 Unified Wireless Controller can manage up to 64 DWL-8610AP access points by itself and up to 256 in a switch cluster. And the DWC-2000 greatly reduces network administration by enabling centralised configuration of all DWL-8610AP access points.

**D-Link Unified Wireless provides a range of solutions that enable your network to become a highly mobile, productive learning environment at a low total cost of ownership.**

**D-Link Unified Wireless networks are scalable;** you start in one building and you can add as you go. They're easy to deploy, featuring one-time configuration and dispatch to multiple access points (APs) at one time.

**Each Switch/Controller can automatically detect and configure new channels** as new APs are added to the network, eliminating the need to manually assign a new radio frequency (RF) channel for each AP.

**Each D-Link Access Point offers high quality, reliable, and secure connectivity,** with high data transmission speeds and AP load balancing, allowing students to stay connected as they move from one end of the campus to another.

**D-Link is helping schools build a mobile and connected campus** that advances education by providing Wireless Everywhere.



# D-Link Smart Antenna Technology<sup>#</sup>

## Overview

D-Link Smart Antenna provides an optimal wireless communication transmission experience with a revolutionary adaptive antenna technology. Embedded with intelligent software algorithms, D-Link Smart Antenna can vastly improve performance and reduce the effects of interference. The reception stability of wireless clients is ensured and optimized with Smart Antenna technology, unlike with traditional omnidirectional antenna technology. The smart antenna driver is integrated into D-Link Unified Access Points<sup>#</sup>. It provides unprecedented throughput and a reliable wireless connection.

## Features Highlight

D-Link Smart Antenna provides the solution for high density usage. Compared to traditional PIFA antennas, D-Link Smart Antenna – equipped with revolutionary “Beam-Steering” technology – delivers unprecedented Wi-Fi performance, longer range, and a more reliable experience, especially in highdensity environments.

- Significantly enhances antenna gain to maintain connectivity and improve performance
- Actively shapes the antenna beam toward the direction of target clients
- Automatically selects the optimal radiation pattern and maximizes the channel diversity
- Dynamically reconfigures beam shaping to ensure throughput performance and eliminate interference
- Effectively reduces the network occupation time to minimize collisions



Figure 1 - D-Link Smart Antenna embedded in Unified Wireless Access Points

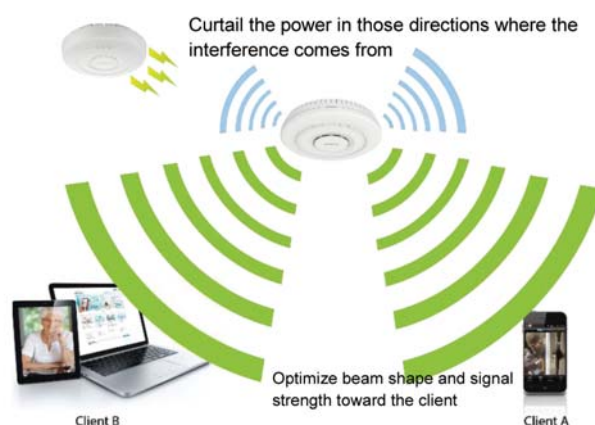


Figure 2 - D-Link Smart Antenna dynamically reconfigures the radiation pattern to optimize signal strength and mitigate interference.

## Benefits

With its ability to dynamically reconfigure the radiation pattern and maximize channel diversity, D-Link Smart Antenna provides wireless clients the following benefits.

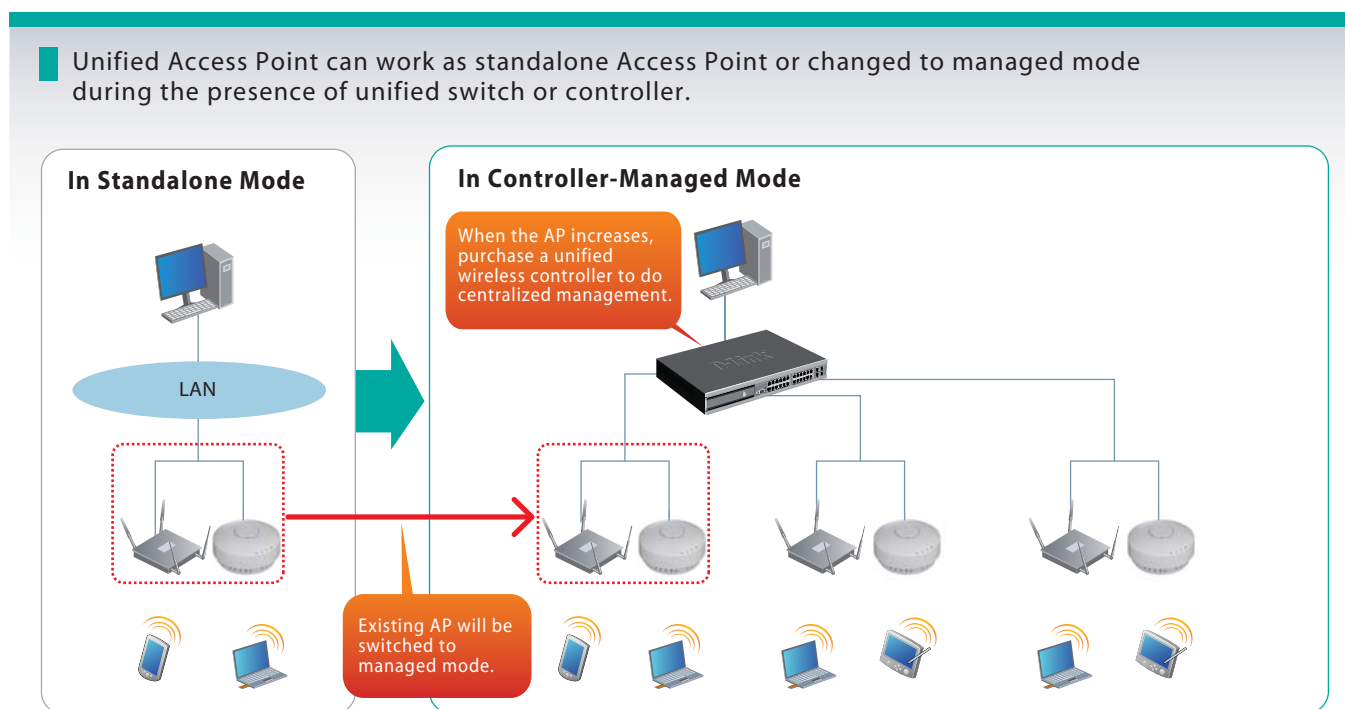
- Extending Power Delivery - The RF power can be transmitted with longer range and enhanced gain by focusing towards clients.
- Maximizing Link Speed - Via optimal radiation pattern and focuses the signal strength towards each client.
- Mitigating Interference - Does not waste RF power in the direction of noise, avoiding co-channel interference.
- Enhancing Reliability - The adaptive antenna system selects the best configuration of radiation pattern and signal path to each client in real-time.
- Minimizing Collisions in the network - Detects client usage in real-time and can significantly reduce the network occupation time from each client.

# D-Link Unified Wireless Solutions

At D-Link, we recognise that wireless has to be reliable and secure for business. Our latest generation of Unified Wireless Solutions offer seamless connectivity, self-healing mechanisms, traffic segmentation and centralized management to achieve a wireless environment as productive and secure as a wired network. Robust enough to be deployed at the very core of your network, they give greatly enhanced reliability and coverage, and include advanced security features to keep you completely safe from intrusion.

## Flexible Deployment

The Unified Wireless Access Point Series can act as a managed access point controlled by the Unified Switch or Wireless Controller. It may also be used as standalone access point when there is no controller in the network.

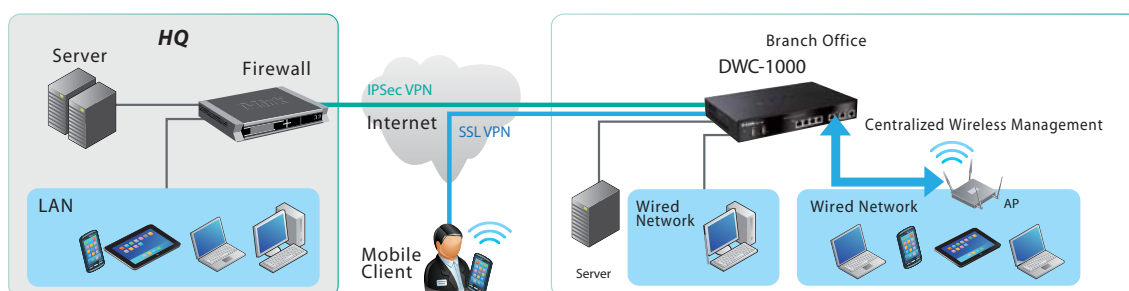


## DWC-1000 as an all-in-one Gateway\*

To address the constantly growing scale and needs of business networks, the DWC-1000 offers a flexible selection of expansion features: administrators can purchase an add-on license to upgrade the capabilities of the DWC-1000. The VPN license upgrade enables the DWC-1000 to provide VPN, Router and Firewall functionality. The firewall function allows administrator to control network access by setting classification policies. The dual option ports provide link failover and internet connection redundancy to ensure uninterrupted internet connectivity. The Virtual Private Network (VPN) features provide secure remote control to manage access points in branch offices as well as site-to-site VPN tunnel to facilitate HQ to branch office connectivity through encrypted virtual links. In addition, mobile users can also connect back to their office via SSL VPN tunnel on-the-go.

### All-in-One Gateway - DWC 1000

DWC-1000 can act as an all-in-one gateway to provide firewall, VPN as well as centralized wireless management capability for SMB network.








\* Require to purchase DWC-1000-VPN-LIC to activate the functions.








# Wireless Network Adapters

## DWA Series

D-Link's DWA range of wireless adapters provides the perfect solution to add super-fast Wireless AC to any computer, whether desk-bound or on the go. With USB plug-and-play 'dongles', and PCI/PCIe hard-wired adapter for PCs, you can enjoy a transformed wireless Internet connection using the fastest wireless technology available today.

D-LINK NETWORK ADAPTERS (WIRELESS)					
CHOOSE THE D-LINK NETWORK ADAPTER THAT'S RIGHT FOR YOUR HOME OR BUSINESS	WIRELESS AC				
					
MODEL	DWA-192	DWA-182	DWA-582	DWA-172	DWA-171
Description	Wireless AC1900 Dual Band USB Adapter	Wireless AC1200 Dual Band USB Adapter	Wireless AC1200 Dual Band PCIe Desktop Adapter	Wireless AC600 High Gain Dual Band USB Adapter	Wireless AC600 Dual Band Nano USB Adapter
Wireless Technology	Dual Band* Wireless AC (1900Mbps)	Dual Band* Wireless AC (1200Mbps)	Dual Band* Wireless AC (1200Mbps)	Dual Band* Wireless AC (600Mbps)	Dual Band* Wireless AC (600Mbps)
Interface	USB 3.0	USB 3.0	PCI Express	USB 2.0	USB 2.0
Low Profile Bracket			.		
Cradle Extension Included		.			

\*Dual-band selectable between 2.4GHz & 5GHz

D-LINK NETWORK ADAPTERS (WIRELESS)							
CHOOSE THE D-LINK NETWORK ADAPTER THAT'S RIGHT FOR YOUR HOME OR BUSINESS	WIRELESS N300				WIRELESS N150		
							
MODEL	DWA-137	DWA-132	DWA-131	DWA-548	DWA-127	DWA-123	DWA-121
Description	Wireless N300 High Gain USB Adapter	Wireless N300 USB Adapter	Wireless N300 Nano USB Adapter	Wireless N300 PCIe Desktop Adapter	Wireless N150 High Gain USB Adapter	Wireless N150 USB Adapter	Wireless N150 Pico USB Adapter
Wireless Technology	Single Band Wireless N (300Mbps)	Single Band Wireless N (300Mbps)	Single Band Wireless N (300Mbps)	Single Band Wireless N (300Mbps)	Single Band Wireless N (150Mbps)	Single Band Wireless N (150Mbps)	Single Band Wireless N (150Mbps)
Interface	USB 2.0	USB 2.0	USB 2.0	PCI Express	USB 2.0	USB 2.0	USB 2.0
Low Profile Bracket				.			

# D-Link Wireless Solutions for SMB

## A Connected Workforce is a More Productive Workforce

Everyone expects wireless these days. Once a 'nice to have' feature, wireless capability is now widespread among businesses of all types and sizes. Mobility has become essential to support flexible working and helping businesses to stay nimble and competitive. But in many cases wireless networks are failing to deliver as well as they should. Businesses often struggle with patchy reception and sluggish data transfer. Increased use of voice, video and surveillance technologies across networks often stretch wireless bandwidth to the limit and beyond. Many wireless networks remain unprotected against security threats such as rogue access points.

At D-Link we recognise that wireless has to be reliable and secure for business. Our latest generation of wireless products offer seamless connectivity, self-healing mechanisms, traffic segmentation and centralised management to achieve a wireless environment as productive and secure as a wired network. Robust enough to be deployed at the very core of your network, they give greatly enhanced reliability and coverage, and include advanced security features to keep you completely safe from intrusion.

## Why Choose D-Link?

D-Link offers unified wireless networking solutions that enable small and mid-sized businesses to create highly mobile, highly productive work environments at a low total cost of ownership (TCO). With products that provide excellent value across a wide range of scenarios, D-Link wireless networks are scalable, easy to deploy and manage, and deliver reliable, secure connectivity, in a self-healing solution. D-Link wireless solutions are engineered to open standards, making them easy to integrate into an existing multi-vendor wired or wireless infrastructure, giving you the flexibility to build your network the way you want.

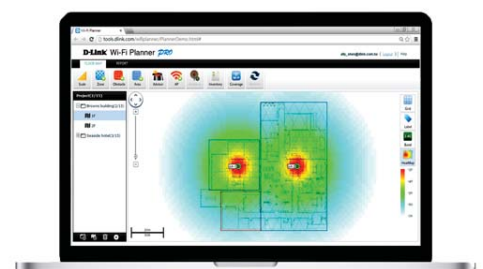
## Advantages of D-Link Wireless Solutions

- Breadth of options from stand-alone to cloud managed APs to unified wireless end to end solutions give you the flexibility to choose what's right for you.
- Innovation in architecture and design provides seamless roaming via automatic management of RF frequencies, interference and wireless 'hole' repair.
- Ease of installation and management with PoE support, unified management, monitoring and update of all APs and cloud management options.
- Networking expertise that comes from over 30 years of design and manufacturing experience in networking, switching, wireless, IP Surveillance and security.
- D-Link's Wireless Site Survey is the starting point for a successful wireless LAN upgrade or initial implementation. D-Link's wireless network expertise results in an accurate survey and documentation of the RF (Radio Frequency) characteristics of your facilities. An interview process is the next step to an equipment specification, placement and configuration plan that optimizes coverage and can handle the wireless, application and security demands of your business, now and in the future.

## Looking to install or refresh your wireless network infrastructure?

D-Link's Wireless Site Survey is the starting point for a successful wireless LAN upgrade or initial implementation. During a site survey, we can determine the most effective solution to not only meeting the requirements of your business, but also your budget. D-Link Site Survey are designed to assist you in making your Wireless decision wisely.

Book your Wireless Site Survey now! Contact our sales representative for more info.





# 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

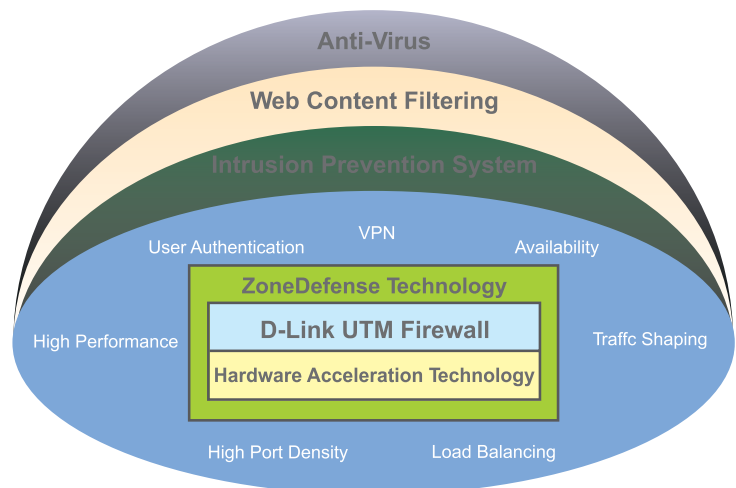


# Range Overview

## Unified Services Routers



## Unified Threat Management (UTM)



# Unified Services Routers

## DSR Series

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 IEEE 802.11a/b/g/n/ac, secure wireless access, 3G/4G LTE 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.



### Principle Product Features

#### DSR-250N

- 10/100/1000BASE-T (WAN) port x 1
- 10/100/1000BASE-T (LAN) ports x 8
- IEEE 802.11b/g/n wireless LAN (2.4 GHz)
- USB 2.0 port x 1
- 2dBi dipole antennas x 2 (detachable)
- 3G/4G LTE WAN Backup via USB

#### DSR-500

- 10/100/1000BASE-T (WAN) ports x 2
- 10/100/1000BASE-T (LAN) ports x 4
- USB 2.0 port x 1
- 3G/4G LTE WAN Backup via USB

#### DSR-500AC

- 10/100/1000BASE-T (WAN) ports x 2
- 10/100/1000BASE-T (LAN) ports x 4
- IEEE 802.11a/b/g/n/ac wireless LAN (2.4 GHz or 5GHz Selectable)
- USB 2.0 port x 1
- 2dBi dipole antennas x 2 (detachable)
- 3G/4G LTE WAN Backup via USB

#### DSR-1000

- 10/100/1000BASE-T (WAN) ports x 2
- 10/100/1000BASE-T (LAN) ports x 4
- USB 2.0 ports x 2
- 3G/4G LTE WAN Backup via USB

#### DSR-1000AC

- 10/100/1000BASE-T (WAN) ports x 2
- 10/100/1000BASE-T (LAN) ports x 4
- IEEE 802.11a/b/g/n/ac wireless LAN (2.4 GHz & 5 GHz Concurrent)
- USB 2.0 ports x 2
- 2dBi dipole antennas x 3 (detachable)
- 3G/4G LTE WAN Backup via USB

### Optional Licenses

#### Upgrade licenses:

DSR-250N-WCF-12-LIC	DSR-250N 1 Year Web Content Filtering License
DSR-500-WCF-12-LIC	DSR-500 1 Year Web Content Filtering License
DSR-500AC-WCF-12-LIC	DSR-500AC 1 Year Web Content Filtering License
DSR-1000-WCF-12-LIC	DSR-1000 1 Year Web Content Filtering License
DSR-1000AC-WCF-12-LIC	DSR-1000AC 1 Year Web Content Filtering License

#### Optional Management Software

DV-700	D-View 7 Network Management System for DSR-500AC/1000AC
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### Key Series Features

- Static/dynamic IP WAN type
- Point-to-Point Protocol over Ethernet (PPPoE)
- SSL/IPSec/PPTP/L2TP VPN
- VPN hub and spoke
- IPSec/PPTP/L2TP VPN pass-through
- 3G /4G LTE WAN redundancy via optional 3G/4G LTE USB modem
- Network Address Translation (NAT), PAT
- WAN traffic failover
- Outbound load balancing (DSR-500/500AC/ 1000/1000AC only)
- Remote management (Web, SNMP, SSH, Telnet)
- Internet Group Management Protocol (IGMP) proxy/snooping
- Stateful Packet Inspection (SPI)
- IP/MAC binding
- Virtual LAN (VLAN)
- Intrusion Prevention System (IPS)
- Wireless Security\* (WEP, WPA, WPA2, WPS)
- Multiple SSIDs, SSID-to-VLAN mapping\*





MODEL		DSR-250N	DSR-500	DSR-500AC	DSR-1000	DSR-1000AC
Interfaces	Gigabit Ports (WAN)	1	2	2	2	2
	Gigabit Ports (LAN)	8	4	4	4	4
	USB	1 x USB 2.0	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	750 Mbps	950 Mbps	950 Mbps	950 Mbps	950 Mbps
	VPN Throughput	50 Mbps	70 Mbps	200 Mbps	100 Mbps	250 Mbps
	Concurrent Sessions	20,000	30,000	50,000	60,000	100,000
	New Sessions (Per Second)	200	300	500	600	1000
	Firewall Policies	200	300	600	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		802.11b/g/n		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		WEP/WPS/WPA-PSK/WPA-EAP/WPA2-PSK/WPA2-EAP
VPN	VPN Tunnels	65	85	85	135	135
	IPSec Tunnels	25	35	35	70	70
	SSL VPN Tunnels	5	10	10	20	20
	PPTP/L2TP Tunnels	25	25	25	25	25
	GRE	10	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	v1 / v2c / v3				
Physical and Environmental	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)	140 x 203 x 35 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.

# DFL-870

## NetDefend UTM Firewall

The D-Link DFL-870 NetDefend 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-870 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-870 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-870 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-870 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 NetDefend Firewall UTM Service subscriptions that ensure that each of the firewall's service databases remain up-to-date.



MODEL		DFL-870
Interfaces	Ports	6 Configurable Ports
	USB Port	2 x USB 2.0 Ports
	Serial Port	Mini USB Console Port
System Performance	Firewall Throughput	4 Gbps
	VPN Throughput	1 Gbps
	IPS Throughput	450 Mbps
	AV Throughput	600 Mbps
	AC Throughput	700 Mbps
	Concurrent Sessions	500,000
	New Sessions per second	45,000
	Policies	2,000
Firewall System	Transparent Mode	•
	NAT, PAT	•
	OSPF Dynamic Routing Protocol	•
	H.323 NAT Traversal	•
	Time Scheduled Policies	•
	Application Layer Gateway	•
	Zone Defense	•
Networking	DHCP Server/Client	•
	DHCP Relay	•
	Policy-Based Routing	•
	802.1q VLAN	•
	IGMP v3	•

### 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
- D-Link pro-active ZoneDefense™ End-to-End Security (E2ES) solution

#### 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, PPTP, L2TP, SSL, GRE protocols
- Redundant VPN gateway
- Hub-and-spoke VPN support

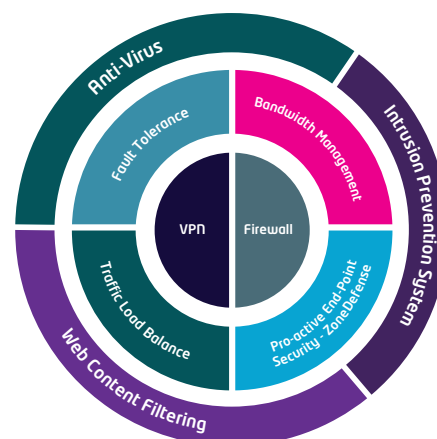
#### ADVANCED FUNCTIONS

- User authentication through:
- Captive portal
- User Identity Awareness
- Active/passive High Availability (HA)





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



## Optional Licenses

### Upgrade licenses:

DFL-870-AC-12-LIC	DFL-870 1 Year Application Control License
DFL-870-AC-24-LIC	DFL-870 2 Years Application Control License
DFL-870-AC-36-LIC	DFL-870 3 Years Application Control License
DFL-870-IPS-12-LIC	DFL-870 1 Year Intrusion Prevention System License
DFL-870-IPS-24-LIC	DFL-870 2 Years Intrusion Prevention System License
DFL-870-IPS-36-LIC	DFL-870 3 Years Intrusion Prevention System License
DFL-870-WCF-12-LIC	DFL-870 1 Year Web Content Filtering License
DFL-870-WCF-24-LIC	DFL-870 2 Years Web Content Filtering License
DFL-870-WCF-36-LIC	DFL-870 3 Years Web Content Filtering License
DFL-870-AV-12-LIC	DFL-870 1 Year Anti-Virus License
DFL-870-AV-24-LIC	DFL-870 2 Years Anti-Virus License
DFL-870-AV-36-LIC	DFL-870 3 Years Anti-Virus License

# M2M Business Solutions

## DW'X' Series

Machine to Machine technology is an integral part of the Internet of Things. Collect data from remote sensors, keep assets connected without deploying new infrastructure, take payments from anywhere, or deploy networks in remote areas. Organisations can work smarter with D-Link's M2M products. Blazing fast 4G LTE speeds, such as those delivered by D-Link's 4G LTE M2M Router (DWM-312), give you the reliable, always-on connectivity you need for business in the digital age.

LTE router is great for exhibitions, trade shows, or for demonstrations requiring an internet connection outside of the office. In office it helps to lower down your cost on installing hardwire Ethernet cables. 4G is ideal for users unable to get conventional ADSL or cable broadband, for example in rural and/or remote areas. The connection could be shared to different clients such as Wi-Fi devices or printer.

LTE VPN router is easiest way to deploy a LTE gateway for machine connecting with Internet. The connection could be plug and play without geographic limit. LTE VPN router is the most cost-effective product with robust design, secure internet access, variable voltage range and wide temperature range.

### Key Series Features

- Blazing fast LTE Speeds
- Easy to use web interface
- Powerful VPN tools
- Advanced remote management
- SNMP management
- Supports IPSec, PPTP, L2TP
- Built-in SIM Card slot

### DWM-312

#### CAT4 LTE VPN M2M Router



- Dual SIM design
- Robust industrial grade enclosure
- 2 x Detachable LTE antennas
- 4G LTE\*: 700 / 800 / 850 / 900 / 1800 / 1900 / 2100 / 2300 / 2600 MHz
- 4G LTE\* Bands: 1 / 2 / 3 / 5 / 7 / 8 / 20 / 28 / 38 / 40
- 3G / UMTS: 850 / 900 / 1900 / 2100 MHz
- User friendly Web interface
- Advanced VPN support: Client and Server
- IPSec, PPTP, L2TPv2, GRE support
- SNMP management support

### DWP-901

#### CAT4 LTE ODU Router



- Built-in SIM Card Slot
- 1 X 10/100 Fast ethernet LAN
- 4G LTE\*: 700 / 800 / 850 / 900 / 1800 / 1900 / 2100 / 2300 / 2600 MHz
- 4G LTE\* Bands: 1 / 2 / 3 / 5 / 7 / 8 / 20 / 28 / 38 / 40
- 3G / UMTS: 850 / 900 / 1900 / 2100 MHz
- User friendly Web interface
- IPv4/IPv6
- VPN – L2TP
- SNMP management support

### DWR-925

#### 4G LTE VPN Router with SIM Card Slot



- Built-in SIM Card Slot
- LTE Bands\*: 800 / 900 / 1800 / 2100 / 2600 / TDD2300 MHz
- LTE Bands\*: 1 / 3 / 7 / 8 / 20 / 40 MHz
- 3G / UMTS Bands\*: 850 / 900 / 1900 / 2100 MHz
- 1 x Ethernet WAN port
- 4 x 10/100 Ethernet LAN ports
- Wireless 802.11 b/g/n
- 2 x External Removable LTE Antennas
- 2 x External Removable Wi-Fi Antennas
- Dual-active firewalls (NAT/SPI) to control traffic & prevent exploits / intrusions
- Supports IPSec/L2TP/PPTP VPN tunnels
- RS-232 Serial Port (DB9)
- Metal Housing

\* The frequency band is country dependent. Please check with D-Link sales person for details.

# Smart City Begins with M2M Business Solutions

## D-Link M2M Solution Application Scenarios

### SMART SURVEILLANCE



### ATM CONNECT



### IN-VEHICLE INFOTAINMENT



### CHAIN STORE CONNECTION



# Video Surveillance



The security of your business is at risk if there is no surveillance or monitoring system in place to protect your assets. Choosing to implement video surveillance brings many advantages, not least of which is that in most cases you can utilise your existing data network infrastructure to maximise investment. Digital video surveillance not only provides all of the superior functionality of an effective analogue CCTV offering, but adds several key benefits, such as increased accessibility, real-time alerts, unlimited video storage, secure image distribution and superior cost benefits, not to mention, of course, the peace of mind that comes with knowing your business premises are being monitored 24/7. Products under this category include IP cameras, network video recorders and video encoders. Many of D-Link's IP cameras are PoE-equipped, making installation simpler and more cost-effective when used in conjunction with PoE-capable switches, and there are plenty in the range that are wireless, again simplifying location positioning.



## H.265 Video Compression

Provides high quality video with less bandwidth needed, less disk space required for recording. Helps to save storage cost and reduce bandwidth usage. The new H.265\* brings huge bandwidth savings of approximate 30-50% over H.264 encoded content with similar quality.

\* Supported by DCS-6517/7517.



H.264



H.265

## PoE (Power Over Ethernet)

Power & data transmission via single UTP cable. PoE allows easy installation in a variety of locations without the need for supplemental power cabling

## WDR (Wide Dynamic Range)

Neutralizes imperfect lighting, provide clear images with the right amount of contrast even for backlit subjects.



Without WDR



With WDR

## Outdoor IP Rating

D-Link Outdoor IP Cameras come with water & dust-proof housing for outdoor deployments.

## Infrared-cut Removable (ICR) Filter & Infrared LED illuminator

Provides 24/7 Day & Night monitoring, even in low light condition



0 lux with IR on



0 lux without IR



# Choosing your Network Cameras

D-Link deliver a complete line of full-featured Network Cameras offering the surveillance capabilities your business need. They're designed with the latest technology, from Power over Ethernet (PoE or PoE+), on-board video processing, motion and tamper detection\*, high definition and multi-megapixel resolution, ICR for recording in any light conditions, H.265/H.264/MPEG-4/MJPEG compression, pan/tilt/zoom (PTZ) and more. All for less than competitive solutions — so you can do more with your security budget.



## CUBE CAMERAS

Designed for use in small businesses and residential applications, D-Link cube cameras are an attractive entry-level surveillance camera solution. Offering HD / Full HD resolution, the ability to see in complete darkness and two-way audio with a built-in microphone and speaker, D-Link professional cube cameras are high-end cameras in small, easy-to-install packages.



## FISHEYE CAMERAS

Available in multi-megapixel resolutions, D-Link fisheye cameras can be mounted on ceiling for full 360 degree of coverage. It can also be placed on a wall for 180 degree coverage. The distortion correction gives panoramic view or a normal corrected image that can pan across easily.



## BULLET CAMERAS

Bullet cameras are a variation of the box camera built into a sealed, weatherproof enclosure. They can be used indoors or outdoors without the need for additional hardware (a wall mount is included). Bullet cameras are often used because of their all-in-one design and attractive pricing. D-Link bullet cameras are available in HD / Full HD resolution, offer day & night functionality and integrated infrared illumination.



## INDOOR DOME CAMERAS

D-Link indoor dome cameras offer an aesthetic design wherein the camera, lens and cabling are hidden and protected inside of a domed enclosure.

D-Link indoor dome cameras are available in HD / Full HD resolution, offer day / night functionality, integrated IR illumination, two-way audio\* and integrated memory card storage\*.



## OUTDOOR DOME CAMERAS

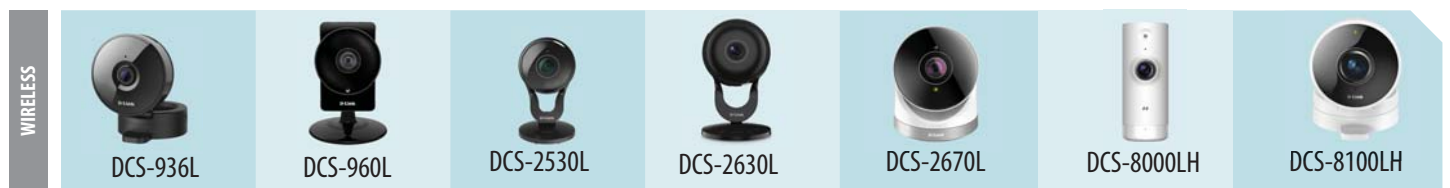
D-Link outdoor dome cameras offer an aesthetic design wherein the camera, lens and cabling are hidden and protected inside of a domed enclosure. Built with a rugged vandal-proof and weatherproof design and extended temperature range operation, D-Link outdoor dome cameras are available in HD / Full HD and multi-megapixel resolution, offer day / night functionality, integrated IR illumination, two-way audio\* and integrated memory card storage\*.

\*Model Dependent



# Range Overview

## Fixed Cloud Cameras (Indoor / Outdoor)



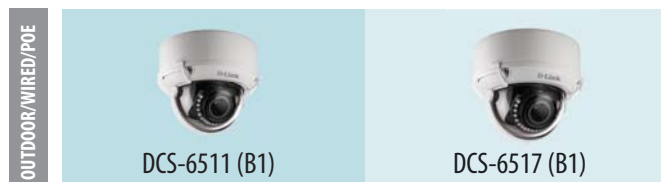
## Fixed Cameras (Outdoor)



## Mini Dome Cloud Cameras (Indoor)



## Dome Cameras (Outdoor)



## PTZ Cameras (Indoor/Outdoor)




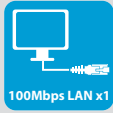







## Vigilance Range (Indoor/Outdoor)



## Key to icons used

In the following pages you're going to come across these icons. Here's what they mean...

 <p>mydlink™ Uses D-Link's cloud to link you and your camera up and monitor remotely in real time</p>  <p>Onvif Conforms to standards established by the Open Network Video Interface Forum</p>  <p>Wireless Wireless-equipped to work with Wi-Fi networks</p>	 <p>Ethernet Equipped with hard-wired connection. Look for speed/number at bottom</p>  <p>Power over Ethernet Device draws its power from the PoE switch, eliminating separate power supply</p>  <p>Optical Zoom Camera is equipped with physical zoom. Figure gives the zoom level</p>	 <p>JustConnect™ Monitor camera live view via iOS/Android devices. Require port forwarding &amp; DDNS</p>  <p>USB Ports Device equipped with USB. Text gives speed and number of ports</p>  <p>2-Bay Indicates that a Network Video Recorder has two bays for SATA drives</p>
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# Fixed Network Cameras (Wired / Wireless - Indoor / Outdoor)

D-Link's range of fixed network cameras are designed to meet the needs of businesses looking to implement a cost-effective monitoring system, and who might also be looking for night-vision capabilities. All cameras offer motion detection with notification, so peace of mind comes already built in...

D-Link's outdoor fixed, wired cameras are all built to IP65/66/67/68 standard, so they're weather-proof and designed specifically for use outside. Additional features such as long-distance night vision, digital zoom and motion detection/alert make them perfect for the perimeter areas of buildings, alleyways or other dimly lit areas.

The wired indoor camera is perfect for office or campus locations where 24/7 security is paramount.

## DCS-930L Wireless Cloud Camera



- 1/5" VGA progressive scan CMOS sensor
- 640 x 480 resolution
- Built-in microphone
- Motion detection, Sound detection and e-mail notification with snapshots



mydlink

## DCS-2136L HD Wireless AC Day/Night Cloud Camera with Colour Night Vision

Wireless AC



- 1/3" 1 megapixel progressive scan CMOS sensor supporting Wide Dynamic Range (WDR) and White light LED
- HD 720p resolution
- Up to 5 m colour night vision with integrated white light illuminator
- Two-way audio with built-in microphone and speaker
- Recording to local microSD card slot (up to 32 GB) or to a NAS device
- Integrated PIR motion sensor



mydlink  
ONVIF

## DCS-7513 (B1) Outdoor Full HD PoE Varifocal WDR Day/Night Fixed Bullet Network Camera



ONVIF

- 1/2.8" 2 megapixel progressive scan CMOS sensor
- Motorised P-iris varifocal lens (2.8~12 mm)
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- Full HD 1080p resolution @ 60fps
- Up to 30 m night vision with smart IR that resolved over-exposure issue
- Face Detection for human face identification
- Digital Image Stabilization (DIS) eliminate blur image caused by shaking objects
- Recording to local microSD card slot (up to 128 GB\*) or to a NAS device
- 1 x 10/100/1000 LAN port
- IP68 weatherproof housing with sunshield

## DCS-7517 (B1) Outdoor 5MP H.265 PoE Varifocal WDR Day/Night Fixed Bullet Network Camera



ONVIF

- 1/2.9" 5 megapixel WDR progressive scan CMOS sensor
- Motorised DC Varifocal lens (2.8~12 mm, F1.4)
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 5 Megapixel Resolution (max. 2592 x 1944)
- Up to 30 m night vision with smart IR that resolved over-exposure issue
- 10 x digital zoom
- Supports H.265 High Efficiency Video Coding standard, maximizes network bandwidth for enhanced quality & smoother video streams
- Motion detection, event recording and e-mail notification with snapshots
- IP68 weatherproof housing with sunshield

## What is mydlink™?

mydlink™ is a cloud-based platform that allows you to quickly and easily view your live mydlink-enabled camera feeds and manage your mydlink-enabled routers from anywhere with an Internet connection. Whether you are at the office, having an evening out, or away on holiday, the mydlink™ Lite app gives you access to your mydlink-enabled camera, router and network video recorder, even when you are on-the-go.



MODEL	DCS-930L	DCS-2136L	DCS-7513 (B1)	DCS-7517 (B1)
<b>IMAGE SENSOR</b>				
Type	1/5" VGA Progressive Scan CMOS	1/3" 1 Megapixel Progressive Scan CMOS	1/2.8" 2 Megapixel Progressive Scan CMOS	1/2.9" 5 Megapixel Progressive Scan CMOS
Megapixel		•	•	•
Wide Dynamic Range (WDR)		•	•	•
Digital Image Stabilization (DIS)			•	•
Face Detection			•	
White Light LED		•		
Maximum Video Resolution (16:9)	640 x 480	1280 x 720	1920 x 1080	1920 x 1080
<b>LENS</b>				
Type	Fixed	Fixed	Motorised P-Iris Varifocal Lens	Motorised DC Iris Varifocal Lens
Focal Length	3.15 mm	3.6 mm	2.8 ~ 12 mm	2.8 ~ 12 mm
F-Number	F2.8	F1.4	F1.4	F1.4
Minimum Illumination (Lux)	1 Lux	1 Lux (Colour) 0 Lux (Colour, White Light LED on)	0.01 Lux (Colour) 0.008 Lux (B&W) 0 Lux (B&W, IR-LED on)	0.01 Lux (Colour) 0.008 Lux (B&W) 0 Lux (B&W, IR-LED on)
Angle of View (Horizontal/Vertical/Diagonal)	45.3° / 34.5° / 54.9°	64° / 46.5° / 92.4°	108°~33° / 57°~39° / 134°~39°	75°~24° / 55°~18° / 96°~30°
Motorised Pan/Tilt				
Optical Zoom				
Privacy Masks		•	•	•
<b>DAY AND NIGHT</b>				
ICR Filter			•	•
Built-in PIR		•		
Built-in IR		5 m (White Light)	30 m Smart IR	30 m Smart IR
<b>AUDIO</b>				
Two-Way Audio		•	• #	• #
Built-in Microphone	•	•		
External Microphone Input			• #	• #
Built-in Speaker		•		
External Speaker Output			• #	• #
<b>CONNECTIVITY</b>				
Wired LAN	•	•	•	•
Wireless LAN	802.11 b/g/n	802.11 a/b/g/n/ac		
Built-in Wi-Fi Extender				
802.3af PoE			•	•
Digital Input/Output		DI x 1, DO x 1	DI x 1, DO x 1 #	DI x 1, DO x 1 #
Video Out				
Memory Card Slot		• (Micro-SD, up to 32 GB)	• (Micro-SD, up to 128 GB)*	• (Micro-SD, up to 128 GB)*
<b>SOFTWARE FEATURES</b>				
Video Format	MJPEG	H.264, MPEG-4, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG
Digital Zoom	4 x	10 x	10 x	10 x
Electronic Pan/Tilt (ePTZ)		•	•	•
HTTP Secure (HTTPS)		•	•	•
Sound Detection	•	•	•	•
Motion Detection	•	•	•	•
E-Mail Notification	•	•	•	•
Samba Recording to NAS		•	•	•
UPnP Installation	•	•	•	•
DDNS Support	•	•	•	•
mydlink™ -enabled	•	•	•	•
D-ViewCam™ Compatible	•	•	•	•
<b>PHYSICAL AND ENVIRONMENT</b>				
Dimensions	80 x 80 x 126.6 mm	58 x 43.1 x 128.8 mm	222.10 x 98.33 x 86.7 mm	249.10 x 97.5 x 90.7 mm
Weight	80.1 g	129 g	1540 g (with Bracket and Sunshield)	1540 g (with Bracket and Sunshield)
Maximum Power Consumption	1.84 W	4 W	10 W	10 W
Operating Temperature	0°C to 40°C	0°C to 40°C	-40°C to 50°C	-40°C to 50°C
Operating Humidity	20% to 80% RH Non-Condensing	20% to 80% RH Non-Condensing	20% to 90% RH Non-Condensing	20% to 80% RH Non-Condensing
IP Rating			IP68	IP68
<b>OPTIONAL ACCESSORIES</b>				
Cable Harness			DCS-11	DCS-11

\* Compatible with micro-SD/SDHC/SDXC cards up to v3.01. Not compatible with v4.x cards.

# Optional purchase of DCS-11 Cable Harness

# Fixed Network Cameras (Wireless - Indoor / Outdoor)

D-Link has developed new range of fixed network cameras that are in-built with latest Wireless AC technology to give user high bandwidth connection for improved range and more flexible placement via micro-USB powered connector. Unlike traditional cameras, the DCS-960L, DCS-2530L and DCS-2630L use an ultra-wide view lens to give you full 180° field of view, letting you cover the entire room with a single camera. The built-in de-warping technology gives you distortion-free image, and the HD/Full HD sensor captures fine details with ease.

## DCS-8000LH

### HD Mini Wireless Day/Night Cloud Camera



- 1/4" 1 megapixel progressive scan CMOS sensor
- HD 720p resolution
- Up to 5 m night vision with integrated IR illuminator
- Built-in microphone
- Motion/Sound detection and e-mail notification with snapshots
- Powered via micro-USB port



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## DCS-936L

### HD Wireless Day/Night Cloud Camera



- 1/4" 1 megapixel progressive scan CMOS sensor
- HD 720p resolution
- Up to 5 m night vision with integrated IR illuminator
- Built-in microphone
- Recording to local microSD card slot (up to 128GB\*)
- Motion detection, Sound detection and E-Mail Notification with Snapshots
- Powered via micro-USB port



mydlink

## DCS-960L

### HD Ultra-Wide View Wireless AC Day/Night Cloud Camera

Wireless AC



- 1/2.7" 1 megapixel progressive scan CMOS sensor
- HD 720p resolution
- Up to 5 m night vision with integrated IR illuminator
- Wide angle lens with hardware de-warping for clear whole-room coverage
- Built-in microphone
- Recording to local microSD card slot (up to 128GB\*)
- Powered via micro-USB port



mydlink

## DCS-8100LH

### HD Ultra-Wide View Mini Wireless Day/Night Cloud Camera



- 1/2.7" 1 megapixel progressive scan CMOS sensor
- HD 720p resolution
- Up to 5 m night vision with integrated IR illuminator
- 180 degree Panoramic View
- Built-in microphone & speaker
- Powered via micro-USB port



mydlink

## DCS-2630L

### Full HD Ultra-Wide View Wireless AC Day/Night Cloud Camera

Wireless AC



- 1/3" 3 megapixel progressive scan CMOS sensor
- Full HD 1080p resolution
- Up to 5 m night vision with integrated IR illuminator
- Wide angle lens with hardware de-warping for clear whole-room coverage
- Two-way audio with built-in microphone and speaker
- Recording to local microSD card slot (up to 128GB\*)
- Integrated PIR motion sensor
- Powered via micro-USB port



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## DCS-2530L

### HD Ultra-Wide View Wireless Day/Night Cloud Camera



- 1/3" 2 megapixel progressive scan CMOS sensor
- Full HD 1080p resolution
- Up to 5 m night vision with integrated IR illuminator
- Wide angle lens with hardware de-warping for clear whole-room coverage
- Built-in microphone
- Recording to local microSD card slot (up to 128GB\*)
- Powered via micro-USB port



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## DCS-2670L

### Outdoor Full HD Ultra-Wide View Wireless Day/Night Cloud Camera

ONVIF



- 1/2.7" 2 megapixel progressive scan CMOS sensor
- Full HD 1080p resolution
- 180 degree Panoramic View
- Built-in microphone
- Up to 10m night vision
- Recording to local microSD card slot (up to 128GB\*)
- IP65 Weather-Proof Housing
- Supports Bluetooth & Ethernet Setup



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MODEL	DCS-936L	DCS-960L	DCS-2530L	DCS-2630L	DCS-2670L	DCS-8000LH	DCS-8100LH
<b>IMAGE SENSOR</b>							
Type	1/4" 1 Megapixel Progressive Scan CMOS	1/2.7" 1 Megapixel Progressive Scan CMOS	1/3" 2 Megapixel Progressive Scan CMOS	1/3" 3 Megapixel Progressive Scan CMOS	1/2.7" 2 Megapixel Progressive Scan CMOS	1/4" 1 Megapixel Progressive Scan CMOS	1/2.7" 1 Megapixel Progressive Scan CMOS
Megapixel	•	•	•	•	•	•	•
Wide Dynamic Range (WDR)							
Wide Angle Lens		•	•	•	•		•
Maximum Video Resolution (16:9)	1280 x 720	1280 x 720	1920 x 1080	1920 x 1080	1920 x 1080	1280 x 720	1280 x 720
<b>LENS</b>							
Type	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Focal Length	2.45 mm	1.72 mm	1.7 mm	1.72 mm	1.55 mm	2.39 mm	1.8 mm
F-Number	F2.4	F2.0	F2.5	F2.0	F2.0	F2.4	F2.2
Minimum Illumination (Lux)	2.6 Lux (Colour) 1.5 Lux (B&W) 0 Lux (B&W, IR-LED on)	0.5 Lux (Colour) 0 Lux (B&W, IR-LED on)	0.5 Lux (Colour) 0.1 Lux (B&W) 0 Lux (B&W, IR-LED on)	1 Lux (Colour) 0 Lux (B&W, IR-LED on)	0.5 Lux (Colour) 0.1 Lux (B&W) 0 Lux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)
Angle of View (Horizontal/Vertical/Diagonal)	112° / 77° / 120°	180° / 120° / 180°	180° / 86° / 180°	180° / 112° / 180°	180° / 90°	112° / 54° / 120°	180° / 80° / 180°
Motorised Pan/Tilt							
Optical Zoom							
Privacy Masks			•				
<b>DAY AND NIGHT</b>							
ICR Filter	•	•	•	•	•	•	•
Built-in PIR				•			
Built-in IR	5 m	5 m	5 m	5 m	10 m	5 m	5 m
<b>AUDIO</b>							
Two-Way Audio				•			•
Built-in Microphone	•	•	•	•	•	•	•
External Microphone Input							
Built-in Speaker				•			•
External Speaker Output							
<b>CONNECTIVITY</b>							
Wired LAN					•		
Wireless LAN	802.11 b/g/n	802.11 a/b/g/n/ac	802.11 b/g/n	802.11 a/b/g/n/ac	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
802.3af PoE							
Digital Input/Output							
Video Out							
Memory Card Slot	• (Micro-SD, up to 128 GB*)	• (Micro-SD, up to 128 GB*)	• (Micro-SD, up to 128 GB*)	• (Micro-SD, up to 128 GB*)	• (Micro-SD, up to 128 GB*)		• (Micro-SD, up to 128 GB*)
<b>SOFTWARE FEATURES</b>							
Video Format	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Digital Zoom	4 x	8 x	10 x	8 x	4 x	4 x	4 x
Electronic Pan/Tilt (ePTZ)							
HTTP Secure (HTTPS)	•	•	•	•	•	•	•
Sound Detection	•	•	•	•	•	•	•
Motion Detection	•	•	•	•	•	•	•
E-Mail Notification	•	•	•	•	•	•	•
Samba Recording to NAS							
UPnP Installation	•	•	•	•	•	•	•
DDNS Support	•	•	•	•	•	•	•
mydlink™ -enabled	•	•	•	•	•	•	•
D-ViewCam™ Compatible							
<b>PHYSICAL AND ENVIRONMENT</b>							
Dimensions	92.1 x 65.9 x 90.7 mm	95.8 x 95.8 x 137.5 mm	109.6 x 66 x 66 mm	140 x 83 x 53.7 mm	89.5 x 75.7 x 102.1 mm	37 x 38.1 x 95 mm	91.19 x 36.52 x 103.22 mm
Weight	140 g	165 g	105 g	345 g	360 g	57.7 g	155.3 g
Maximum Power Consumption	4 W	4.8 W	4.5 W	5.65 W	5 W	4 W	7.8 W
Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	-25°C to 45°C	0°C to 40°C	0°C to 40°C
Operating Humidity	20% to 80% RH Non-Condensing	20% to 80% RH Non-Condensing	20% to 80% RH Non-Condensing	20% to 80% RH Non-Condensing	20% to 80% RH Non-Condensing	20% to 80% RH Non-Condensing	20% to 80% RH Non-Condensing
IP Rating					IP65		

\* Compatible with micro-SD/SDHC/SDXC cards up to v3.01. Not compatible with v4.x cards.

# Fixed Dome Network Cameras (Wired/Wireless - Indoor/Outdoor)

D-Link's high-performance Fixed Dome Network Cameras provide the perfect video surveillance solution for a whole host of business environments. They are equipped with progressive CMOS technology to deliver exceptional picture quality, and all are PoE-enabled for simplified low-cost installation.

## DCS-6005L HD Wireless Day/Night Mini Dome Cloud Camera



- 1/4" 1 megapixel progressive scan CMOS sensor
- Fixed lens (2.8 mm, F1.8)
- HD 720p resolution
- Up to 5 m night vision with integrated IR illuminator
- 10 x digital zoom
- Two-way audio with built-in microphone and external speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot (up to 32 GB) or to a NAS device
- Motion/Sound detection, event recording and e-mail notification with snapshots
- Supports 802.11b/g/n

## DCS-6511 (B1) Outdoor Full HD PoE Vandal-Proof WDR Day/Night Dome Network Camera



- 1/2.8" 2 megapixel WDR progressive scan CMOS sensor
- Motorised P-Iris Varifocal lens (2.8~12 mm, F1.4)
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- Full HD 1080p resolution @ 60fps
- Up to 20 m night vision with smart IR that resolved over-exposure issue
- Face Detection for human face identification
- Digital Image Stabilization (DIS) eliminate blur image caused by shaking objects
- Recording to local microSD card slot (up to 128 GB\*) or to a NAS device
- 1 x 10/100/1000 LAN port
- IP67 weatherproof and IK10 vandal-proof housing

## DCS-6517 (B1) Outdoor 5MP H.265 PoE Vandal-Proof WDR Day/Night Dome Network Camera



- 1/2.9" 5 megapixel WDR progressive scan CMOS sensor
- Motorised DC Varifocal lens (2.8~12 mm, F1.4)
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 5 Megapixel Resolution (max. 2592 x 1944)
- Up to 20 m night vision with smart IR that resolved over-exposure issue
- 10 x digital zoom
- Supports H.265 High Efficiency Video Coding standard, maximizes network bandwidth for enhanced quality and smoother video streams
- Motion detection, event recording and e-mail notification with snapshots
- IP67 weatherproof with sunshield and IK10 vandal-proof housing

## How is Weatherproofing rated?

The industry standard for weatherproof housings, as used by D-Link, have the following meanings:

- IP65: Dust-tight; Water projected by a nozzle (6.3 mm nozzle at 12.5 litres/min) against enclosure from any direction shall have no harmful effects.
- IP66: Dust-tight; Water projected in powerful jets (12.5 mm nozzle 100 litres/min) against the enclosure from any direction shall have no harmful effects.
- IP67: Dust-tight; Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water up to 1m deep for 30 minutes.
- IP68: Dust-tight; Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water up to 3m deep indefinitely.



MODEL	DCS-6005L	DCS-6511 (B1)	DCS-6517 (B1)
<b>IMAGE SENSOR</b>			
Type	1/4" 1 Megapixel Progressive Scan CMOS	1/2.8" 2 Megapixel WDR Progressive Scan CMOS	1/2.9" 5 Megapixel WDR Progressive Scan CMOS
Megapixel	•	•	•
Wide Dynamic Range (WDR)		•	•
Digital Image Stabilization (DIS)		•	•
Face Detection		•	
Maximum Video Resolution (16:9)	1280 x 800	1920 x 1080	1920 x 1080
<b>LENS</b>			
Type	Fixed	Motorised P-Iris Varifocal	Motorised DC Iris Varifocal
Focal Length	2.8 mm	2.8~12 mm	2.8~12 mm
F-Number	F1.8	F1.4	F1.4
Minimum Illumination (Lux)	0.5 Lux (Colour) 0 Lux (B&W, IR-LED on)	0.01 Lux (Colour) 0.008 Lux (B&W) 0 Lux (B&W, IR-LED on)	0.01 Lux (Colour) 0.008 Lux (B&W) 0 Lux (B&W, IR-LED on)
Angle of View (Horizontal/Vertical/Diagonal)	75.2° / 48.2° / 89.3°	108°~33° / 57°~39° / 134°~39°	75°~24° / 55°~18° / 96°~30°
Optical Zoom			
Privacy Masks	•	•	•
<b>DAY AND NIGHT</b>			
ICR Filter	•	•	•
Built-in IR	5 m	20 m Smart IR	20 m Smart IR
<b>AUDIO</b>			
Two-Way Audio	•	• #	• #
Built-in Microphone	•		
External Microphone Input		• #	• #
Built-in Speaker			
External Speaker Output	•	• #	• #
<b>CONNECTIVITY</b>			
Wired LAN	•	•	•
Wireless LAN	802.11b/g/n		
802.3af PoE		•	•
Digital Input/Output		DI x 1, DO x 1 #	DI x 1, DO x 1 #
Video Out			
Memory Card Slot	• (Micro-SD, up to 32 GB)	• (Micro-SD, up to 128 GB*)	• (Micro-SD, up to 128 GB*)
<b>SOFTWARE FEATURES</b>			
Video Format	H.264, MPEG-4, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG
Digital Zoom	10 x	10 x	10 x
Electronic Pan/Tilt (ePTZ)	•	•	•
HTTP Secure (HTTPS)	•	•	•
Sound Detection	•		
Motion Detection	•	•	•
E-Mail Notification	•	•	•
Samba Recording to NAS	•	•	•
UPnP Installation	•	•	•
DDNS Support	•	•	•
mydlink™-enabled	•	•	•
D-ViewCam™ Compatible	•	•	•
<b>PHYSICAL AND ENVIRONMENT</b>			
IP Rating		IP67	IP67
Vandal Proof		IK10	IK10
Dimensions	90 x 50.5 mm (Ø x H)	134 x 150.63 x 116.01 mm	134 x 150.6 x 116 mm
Weight	135 g	865 g	950 g
Maximum Power Consumption	2.8 W	10 W	10 W
Operating Temperature	0°C to 40°C	-40°C to 50°C	-40°C to 50°C
Operating Humidity	20% to 80% RH Non-Condensing	90% RH Non-Condensing	20% to 80% RH Non-Condensing
<b>OPTIONAL ACCESSORIES</b>			
Cable Harness		DCS-11	DCS-11
Mounting Options		DCS-34-2 DCS-34-3	DCS-34-2 DCS-34-3

\* Compatible with micro-SD/SDHC/SDXC cards up to v3.01. Not compatible with v4.x cards.

# Optional purchase of DCS-11 Cable Harness

# Pan, Tilt, Zoom (PTZ) Network Cameras (Indoor / Outdoor)

These indoor PTZ and outdoor high-speed dome cameras feature 340° to 360° panning for all-round super-wide-range surveillance. These cameras can be automated with preset focal points and an 'auto patrol cruise' to provide a continual scan inside or outside a building.

## DCS-5000L (Indoor) Wireless Day/Night Pan/Tilt Cloud Camera



- 1/5" VGA progressive scan CMOS sensor
- Fixed lens (2.3 mm, F2.0)
- Motorised pan/tilt with +170° to -170° pan range and +95° to -25° tilt range
- 640 x 480 resolution
- Up to 5 m night vision with integrated IR illuminator
- 4 x digital zoom
- Built-in microphone
- Supports MJPEG video format
- Motion detection, event recording and e-mail notification with snapshots and video

## DCS-5020L (Indoor) Wireless Day/Night Pan/Tilt Cloud Camera



- 1/5" VGA progressive scan CMOS sensor
- Fixed lens (2.2 mm, F2.0)
- Motorised pan/tilt with +170° to -170° pan range and +95° to -25° tilt range
- 640 x 480 resolution
- Up to 8 m night vision with integrated IR illuminator
- 4 x digital zoom
- Built-in microphone
- Built-in wireless extender (recommended up to 2 wireless clients)
- Supports MJPEG and H.264 video formats
- Motion and sound detection, event recording and e-mail notification with snapshots and video

## DCS-5030L (Indoor) HD Wireless Day/Night Pan/Tilt Cloud Camera



- 1/4" 1 megapixel progressive scan CMOS sensor
- Fixed lens (2.2 mm, F2.4)
- Motorised pan/tilt with +170° to -170° pan range and +90° to -20° tilt range
- HD 720p resolution
- Up to 5 m night vision with integrated IR illuminator
- 4 x digital zoom
- Built-in microphone
- Supports H.264 and MJPEG video formats
- Motion detection, event recording and e-mail notification with snapshots and video

## DCS-5222L (Indoor) HD Wireless Day/Night Pan/Tilt Cloud Camera



- 1/4" 1 megapixel progressive scan CMOS sensor
- Fixed lens (2.4 mm, F2.0)
- Motorised pan/tilt with +170° to -170° pan range and +100° to -20° tilt range
- HD 720p resolution
- Up to 8 m night vision with integrated IR illuminator
- 10 x digital zoom
- Two-way audio with built-in microphone and speaker, 1 audio input/output port
- Supports MJPEG and H.264 video formats
- Recording to local microSD card slot (up to 32 GB) or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- Integrated PIR sensor for enhanced motion detection

## DCS-6915 (Outdoor) 20X Full HD WDR High Speed Dome Network Camera



- Sony Exmor 1/2.8" 3 megapixel progressive scan CMOS sensor
- Motorised varifocal lens (4.7~94 mm, F1.6~3.5)
- Motorised pan/tilt with fast 5°~400°/Sec preset speed, 360° endless pan, +190° to -10° tilt range
- Proportional pan/tilt; when camera zooms the tracking speed slows for more accurate control
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- Full HD 1080p resolution
- Infrared-cut removable (ICR) filter for recording in low-light conditions
- Two-way audio with external microphone input and speaker output
- Supports MJPEG and H.264 video formats
- Recording to local microSD card slot (up to 32 GB) or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- IP66 weatherproof and IK10 vandal-proof housing



MODEL	DCS-5000L	DCS-5020L	DCS-5030L	DCS-5222L	DCS-6915
<b>IMAGE SENSOR</b>					
Type	1/5"VGA Progressive Scan CMOS	1/5"VGA Progressive Scan CMOS	1/4" 1 Megapixel Progressive Scan CMOS	1/4" 1 Megapixel Progressive Scan CMOS	1/2.8" Sony Exmor 3 Megapixel CMOS
Megapixel				•	•
Wide Dynamic Range (WDR)					•
Maximum Video Resolution (16:9)	640 x 480	640 x 480	1280 x 720	1280 x 720	1920 x 1080
<b>LENS</b>					
Type	Fixed	Fixed	Fixed	Fixed	Motorised Varifocal
Focal Length	2.3 mm	2.2 mm	2.38 mm	2.4 mm	4.7~94 mm
F-Number	F 2.0	F 2.0	F 2.2	F 2.0	F1.6~3.5
Minimum Illumination (Lux)	1 Lux (Colour) 0.5 Lux (B&W, IR-LED on)	1 Lux (Colour) 0 Lux (B&W, IR-LED on)	1 Lux (Colour) 0 Lux (B&W, IR-LED on)	1 Lux (Colour) 0 Lux (B&W, IR-LED on)	0.05 Lux (Colour) 0.01 Lux (B/W)
Angle of View (Horizontal/Vertical/Diagonal)	81.26° / 65.66° / 94.27°	66.22° / 49.08° / 77.04°	94.36° / 59.3° / 110.44°	98° / 52° / 115°	62.2°~4.54° / 52.8°~4° / 32.2°~2.15° /
Motorised Pan/Tilt	• Pan Range: -170° to 170° Tilt Range: -25° to 95°	• Pan Range: +170° to -170° Tilt Range: +95° to -25°	• Pan Range: +170° to -170° Tilt Range: +90° to -20°	• Pan Range: +170° to -170° Tilt Range: +100° to -20°	• Pan Range: 360° endless Tilt Range: +190° to -10°
Optical Zoom					20 x
Privacy Masks					•
<b>DAY AND NIGHT</b>					
ICR Filter	•	•	•	•	•
Built-in IR	5 m	8 m	5 m	8 m	
<b>AUDIO</b>					
2-Way Audio				•	•
Built-in Microphone	•	•	•	•	
External Microphone Input					•
Built-in Speaker				•	
External Speaker Output					•
<b>CONNECTIVITY</b>					
Wired LAN	•	•	•	•	•
Wireless LAN	802.11b/g/n	802.11b/g/n	802.11b/g/n	802.11b/g/n	
Built-in Wi-Fi Extender		•			
802.3af PoE					802.3at midspan PoE
Digital Input/Output				DI x 1, DO x 1	DI x 4, DO x 2
Video Out					
Memory Card Slot			• (Micro-SD, up to 128 GB*)	• (Micro-SD, up to 32 GB)	• (Micro-SD, up to 32 GB)
<b>SOFTWARE FEATURES</b>					
Video Format	MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Digital Zoom	4 x	4 x	4 x	10 x	10 x
Electronic Pan/Tilt (ePTZ)					
HTTP Secure (HTTPS)				•	
Motion Detection	•	•	•	•	•
Sound Detection	•	•	•	•	
E-Mail Notification	•	•	•	•	•
Samba Recording to NAS				•	
UPnP Installation	•	•	•	•	•
DDNS Support	•	•	•	•	•
mydlink™-enabled	•	•	•	•	
D-ViewCam™ Compatible		•		•	•
<b>PHYSICAL AND ENVIRONMENT</b>					
IP Rating					IP66
Vandal Proof					IK10
Dimensions	116.4 x 109.1 x 133.6 mm	102.35 x 101.27 x 133.6 mm	116.4 x 109.1 x 133.6 mm	120 x 103.2 x 130 mm	191.97 x 282.11 mm (Ø x H)
Weight	2928g	2924g	2924g	340g	2.3 Kg (with sunshield)
Maximum Power Consumption	4.8 W	8.64 W	5.56 W	10 W	59.5 W (with Heater on)
Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	-40°C to 50°C
Operating Humidity	20% to 85% RH Non-Condensing	20% to 80% RH Non-Condensing	20% to 85% RH Non-Condensing	20% to 80% RH Non-Condensing	20% to 80% RH Non-Condensing
<b>OPTIONAL ACCESSORIES</b>					
Mounting Options					DCS-32-1, DCS-32-2, DCS-32-3, DCS-32-4
Other					DCS-80-5 (Power Box, 100-150V AC) DCS-80-6 (Power Box, 220-230V AC)

\* Compatible with micro-SD/SDHC/SDXC cards up to v3.01. Not compatible with v4.x cards.





# VIGILANCE Camera Range

## (Indoor / Outdoor)

The Vigilance Camera Range offers professional, full featured high definition video surveillance that is easy to install and highly affordable. The range consist of cameras designed specifically to meet different surveillance and environmental requirements. From standalone surveillance solutions that allow you to record video without additional software or equipment, to weather/vandal-proof cameras for harsh environments. \* Vigilance camera series come with simple and cost effective packaging without power adapter and RJ-45 network cable.

### DCS-4802E (Outdoor)

#### Vigilance Full HD Outdoor WDR PoE Mini Dome Camera



- 1/3" 2-Megapixel progressive scan CMOS
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- IP66 weatherproof
- Power-over-Ethernet simplifies installation as well as deployment cost.

### DCS-4602EV (Outdoor)

#### Vigilance Full HD Outdoor WDR Vandal-Proof PoE Dome Camera



- 1/3" 2-Megapixel progressive scan CMOS
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- IP66 weatherproof
- IK10 vandal-proof housing

### DCS-4603 (Indoor)

#### Vigilance Full HD Indoor WDR PoE Dome Camera



- 1/3" 3-Megapixel progressive scan CMOS
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- Power-over-Ethernet simplifies installation as well as deployment cost

### DCS-4622 (Indoor)

#### Vigilance 360° Full HD WDR PoE Dome Camera



- 1/3" 3-Megapixel progressive scan CMOS
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- 360° coverage via in-built fisheye lens
- Power-over-Ethernet simplifies installation as well as deployment cost.

### DCS-4701E (Outdoor)

#### Vigilance HD Outdoor PoE Mini Bullet Camera



- 1/3" 1.3-Megapixel progressive scan CMOS
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- LowLight+ high sensitivity camera sensor allows the camera to see details in colour, even in very low light
- 3D noise reduction
- IP66 weatherproof housing

### DCS-4703E (Outdoor)

#### Vigilance Full HD Outdoor PoE Mini Bullet Camera



- 1/3" 3-Megapixel progressive scan CMOS
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- IP66 weatherproof housing
- Power-over-Ethernet simplifies installation as well as deployment cost.

### DCS-4633EV (Outdoor)

#### Vigilance H.265 Full HD Outdoor WDR Vandal-Proof PoE Dome Camera



- 1/3" 3-Megapixel progressive scan CMOS
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- Supports H.265 High Efficiency Video Coding standard, maximizes network bandwidth for enhanced quality and smoother video streams



MODEL	DCS-4602EV	DCS-4603	DCS-4622	DCS-4633EV	DCS-4701E	DCS-4703E	DCS-4802E
<b>IMAGE SENSOR</b>							
Type	1/3" 2 Megapixel progressive scan CMOS	1/3" 3 Megapixel progressive scan CMOS	1/3" 3 Megapixel progressive scan CMOS	1/2.8" 3 Megapixel progressive scan CMOS	1/3" 1.3 Megapixel progressive scan CMOS	1/3" 3 Megapixel progressive scan CMOS	1/3" 2 Megapixel progressive scan CMOS
Megapixel	•	•	•	•	•	•	•
Wide Dynamic Range (WDR)	•	•	•	•	•	•	•
3D Noise Reduction	•	•	•	•	•	•	•
LowLight+					•		
Maximum Video Resolution (16:9)	1920 x 1080	2048 x 1536	1920 x 1536	2048 x 1536	1280 x 720	2048 x 1536	1920 x 1080
<b>LENS</b>							
Type	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Focal Length	2.8 mm	2.8 mm	1.1 mm	2.8 mm	2.8 mm	3.6 mm	2.8 mm
F-Number	F2.0	F2.0	F2.0	F1.85	F2.0	F1.8	F1.8
Minimum Illumination (Lux)	1 lux (colour) 0 Lux (B&W, IR-LED on)	0.5 lux (colour) 0.25 Lux (B&W) 0 Lux (IR-LED on)	0.5 lux (colour) 0.25 Lux (B&W) 0 Lux (IR-LED on)	0.01 lux (colour) 0.008 Lux (B&W) 0 Lux (IR-LED on)	0.2 lux (colour) 0 Lux (B&W, IR-LED on)	0.2 lux (colour) 0.1 Lux (B&W) 0 Lux (IR-LED on)	1 lux (colour) 0.5 Lux (B&W) 0 Lux (IR-LED on)
Angle of View (Horizontal/Vertical/Diagonal)	96° / 54° / 108°	84° / 48° / 96°	180° / 180° / 180°	105° / 80° / 130°	96° / 54° / 108°	70° / 40° / 80°	96° / 54° / 108°
Privacy Masks	•	•		•	•	•	•
<b>DAY AND NIGHT</b>							
ICR Filter	•	•	•	•	•	•	•
Built-in IR	20 m	10 m	8 m	20 m	30 m	20 m	20 m
<b>AUDIO</b>							
2-Way Audio			•				
Built-in Microphone			•				
External Microphone Input							
Built-in Speaker			•				
External Speaker Output							
<b>CONNECTIVITY</b>							
Wired LAN	•	•	•	•	•	•	•
Wireless LAN							
802.3af PoE	•	•	•	•	•	•	•
Digital Input/Output							
Memory Card Slot			• (Micro-SD, up to 128GB*)	• (Micro-SD, up to 128GB*)			
<b>SOFTWARE FEATURES</b>							
Video Format	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Digital Zoom	10 x	10 x	10 x	10 x	10 x	10 x	10 x
Electronic Pan/Tilt (ePTZ)	•	•	•	•	•	•	•
Motion Detection	•	•	•	•	•	•	•
E-Mail Notification	•	•	•	•	•	•	•
Samba Recording to NAS	•	•	•	•	•	•	•
DDNS Support	•	•	•	•	•	•	•
D-ViewCam™ Compatible	•	•	•	•	•	•	•
<b>PHYSICAL AND ENVIRONMENT</b>							
IP Rating	IP66			IP66	IP66	IP66	IP66
Vandal Proof	IK10			IK10			
Dimensions	Φ110 × 78.7mm	Φ110.9 × 78.7mm	Φ97 × 48.3mm	Φ99 × 64.7mm	Φ65 × 164.7mm	Φ65 × 164.7mm	Φ113 × 77.7mm
Weight	525 g	385 g	188 g	365 g	445 g	430 g	370 g
Max Power Consumption	5.5 W	4.2 W	4.6 W	6 W	4.7 W	6.4 W	5.2 W
Operating Temperature	-30 ~ 50°C	0 ~ 40°C	0 ~ 40°C	-30 ~ 50°C	-30 ~ 50°C	-30 ~ 50°C	-30 ~ 50°C
Operating Humidity	20 ~ 80% RH (non-condensing)	20 ~ 80% RH (non-condensing)	20 ~ 80% RH (non-condensing)	20 ~ 80% RH (non-condensing)	20 ~ 80% RH (non-condensing)	20 ~ 80% RH (non-condensing)	20 ~ 80% RH (non-condensing)
<b>OPTIONAL ACCESSORIES</b>							
Mounting Options	DCS-37-1 DCS-37-2 DCS-37-3	DCS-37-1 DCS-37-2 DCS-37-3		DCS-37-1 DCS-37-2 DCS-37-3			DCS-37-1 DCS-37-2 DCS-37-3

\* Compatible with micro-SD/SDHC/SDXC cards up to v3.01. Not compatible with v4.x cards.

# Video Management Software (VMS)



## DCS-100 D-ViewCam™

D-ViewCam Video Management Software comes bundled free with D-Link's network cameras and provides video recording, live view & playback management for up to 32 network cameras.

A comprehensive surveillance system designed to centrally manage multiple IP cameras for SOHO & SMB users, it is compatible with all current D-Link IP cameras. It offers digital monitoring and recording capabilities of video, audio and events for various security applications. This software provides users with a wide array of features including an 'e-map mode' which allows users to arrange a map with camera locations and orientation. Additional features such as auto-patrol, rotate, zoom, and focus provide users with optimal control over their video surveillance.

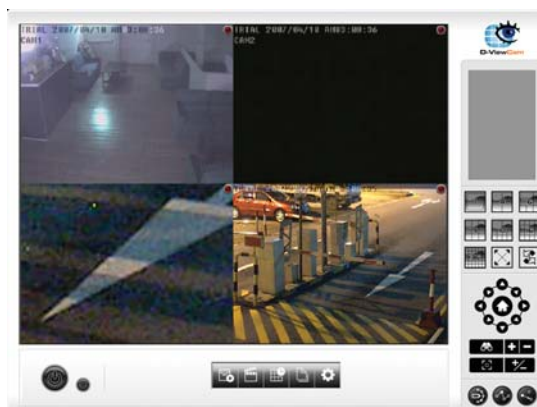
## DCS-210/220/230 D-ViewCam™Standard/Professional/Enterprise

The DCS-210/220/230 D-ViewCam Standard/Professional/Enterprise is a comprehensive network camera surveillance software designed for enterprise users. It centrally manages 8, 32 or 64 network cameras. This paid version software allows multi-channel playback and supports intelligent search tool for quick and accurate searching of video footage.

Connect I/O devices to the I/O connector of a compatible D-Link network camera so that when an event trigger a device, a notification can be sent immediately to the DCS-210/220/230 software.

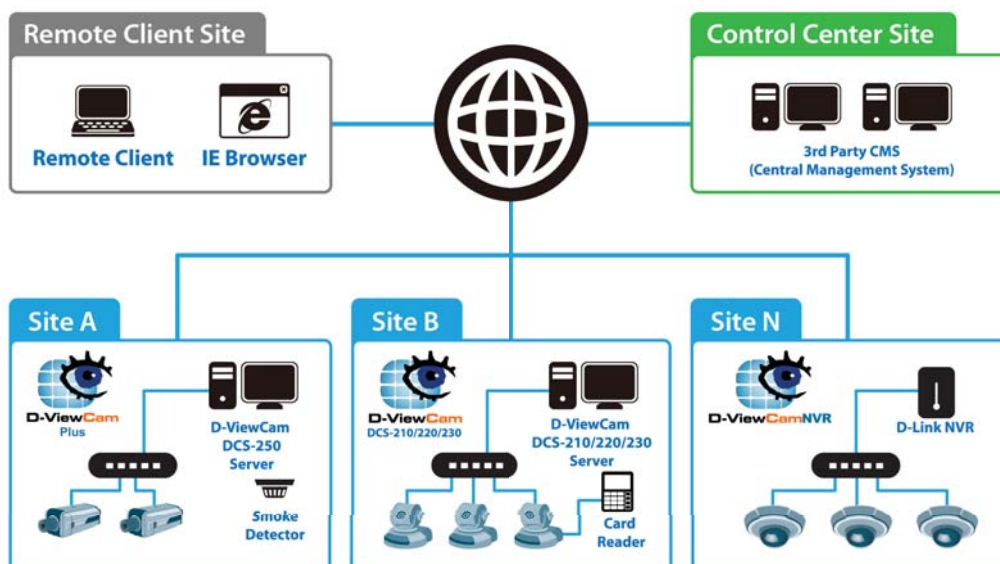


Video Display



Video Playback

## D-ViewCam Typical Network Set-up



## DCS-250 D-ViewCam™ Plus



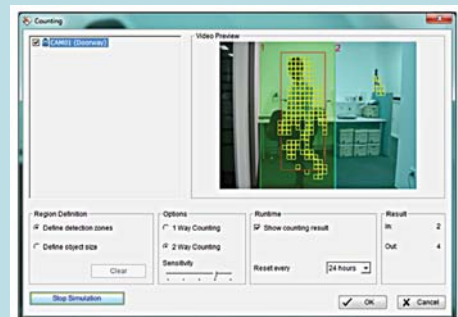
For larger organisations with more cameras in their network, there is D-ViewCam™ Plus (DCS-250), a comprehensive network camera surveillance software system designed for medium-to-large business as well as enterprise users. It centrally manages up to 64 network cameras and is compatible with current D-Link network cameras, video servers and an extensive range of third-party network cameras from more than 40 other companies. This software offers digital monitoring and recording of video, audio, and events for use in various security applications. Furthermore, this easy-to-use surveillance software provides users with a wide array of features, including multiple-channel playback, high-resolution monitoring and live view.

### DCS-250-PRE-001-LIC IVS Presence License\*

This license enables video analytics functions to detect when an object is inside or is crossing a zone or a line.

### DCS-250-COU-001-LIC IVS Counting License\*

This license enables video analytics functions such as people and vehicle counting.



\* License purchase separately



## Vertical Solutions



### Retail Hypermarket & Shopping Mall

#### Adaptive to Various Environments

##### Open Platform

- 3<sup>rd</sup> party camera integration
- Hybrid system for easy transition

##### Data Mining & Display

- Heatmap report to show ROI for every product
- Counting report to analyze business peak

##### Intelligent People Traffic Management

- Analyze business peak
- Instant alarm for counting event

##### 360° Panorama Monitoring

- Fisheye dewarping for multiple cashiers



### Retail Chain Store

#### Adaptive to Various Environments

##### Central Management

- CMS matrix to pop-up event in your store

##### Remote Monitoring

- Easy setup on mobile device & laptop

##### Health Monitoring

- Automatic detection of recording interruption

##### POS Integration Solutions (Multilingual)

- Video overlay multilingual transaction data
- Quick search video by abnormal sales record



### City Surveillance

#### Scalable Video Monitoring Platform

##### Ensure Continuous Recording

- Failover mechanism on both server and HDD
- Camera edge recording backup
- OnGuard for system instant reboot

##### Large Storage Capacity

- Supports H.265 & H.264 for bandwidth control
- Large external storage capacity

##### Easy Integration

- SDK & API available

##### Intelligent Tracking

- PTZ triggered by IVS



### Industrial

#### Plant Management Platform

##### Central Alarm Platform

- Smoke detection
- Automatically controlled gates, audible/visual devices

##### Staff & Vehicle Control

- Facial recognition
- Access control integration
- Dwell & direction trigger

##### Diversified Hardware Options

- Dedicated turnkey NVR hardware
- VMware support
- Digital I/O support

##### Comprehensive Panorama Monitoring

- Software controlled Image Fusion to create a panorama view using standard cameras





# Network Video Recorders (NVR)

D-Link's standalone, wired Network Video Recorders (NVRs) support network cameras with MJPEG, MPEG-4 or H.264 recording onto high-speed 3.5-inch SATA hard drives or external HDD via USB for long-term recording and video playback. These NVRs support recording, real-time monitoring and playback via a web browser from cameras located in local or remote sites, without the need of turning on a computer 24/7.

## DNR-312L mydlink™ 1-Bay Standalone Network Video Recorder



- Accessible from the Internet with mydlink™
- One bay for SATA hard drive (not included)
- HDMI display output
- 2 x USB ports for keyboard/mouse control, HDD with external power
- Monitor and record up to nine cameras simultaneously using MJPEG, MPEG-4 or H.264 video formats
- Supports all D-Link cameras

## DNR-322L (B1) mydlink™ 2-Bay Cloud Network Video Recorder



- Accessible from the Internet with mydlink™
- USB port for backup
- Two bays for SATA hard drives (not included)
- 16-channel IP camera recording
- 16-channel playback
- RAID 0/1 and JBOD
- Configurable recording schedules
- Supports all D-Link cameras

## DNR-2020-04P 2-Bay PoE Network Video Recorder



- Two bays for SATA hard drives (not included) with optional RAID 1 protection
- 4 10/100Mbps PoE ports eliminate the need for electrical wiring when installing cameras
- USB ports for video export and backup, keyboard/mouse control
- Support for all D-Link cameras
- Monitor and record up to 16 cameras simultaneously using MJPEG, MPEG-4 or H.264 video formats
- 16 channels playback
- SmartSearch technology to simplify event investigation
- Digital watermark to prevent tampering on recorded files

## DNR-202L mydlink™ 2-USB Port Camera Video Recorder



- Accessible from the Internet with mydlink™
- Connects to 2 x USB external HDD for recording
- Monitor and record up to 4 cameras simultaneously using MJPEG, MPEG-4 or H.264 video formats
- Supports all D-Link IP cameras

## Benefits of Network Video Recorder

D-Link Network Video Recorder (NVR) is a convenient storage solution for network camera footage that eliminates the need for a dedicated PC. It can record footage simultaneously from multi-channel network cameras and has the capability to continue recording while user is viewing or searching footage at the same time. It comes with user-friendly GUI that is designed for powerful management on your IP cameras' video recording, playback and storage. It is also easy to do remote viewing on all your mobile devices via free mobile app (iOS/Android).

- Easy Installation
- Do not require PC for live-view / playback
- Smart Search function for easy footage retrieval\*
- Free CMS software for centralized viewing of up to 128 channels (dual monitor)

\* Supported by DNR-2020 - 04P





MODEL		DNR-312L	DNR-322L (B1)	DNR-202L	DNR-2020-04P
General	Number of Channels	9	16	4	16
	Compression Format	H.264/MPEG-4/MJPEG	H.264/MPEG-4/MJPEG	H.264/MPEG-4/MJPEG	H.264/MPEG-4/MJPEG
	Maximum Recording Performance	H.264 at 720p at 270 fps or H.264 at 1080p at 135 fps	Primary Video Profile: H.264 720P @ 30fps with 2Mbps x 16 ch Secondary Video Profile: H.264 VGA @ 15fps with 512Kbits x 16 ch	32 Mbps	Max Recording Bitrate: 80 Mbit/s Primary Video Profile: H.264 1080P: 480 fps Secondary Video Profile: H.264 VGA: 240 fps
Video Management – Live View	Video Output	HDMI			HDMI, D-sub for VGA Output
	Display Mode	1, 4, 9 Split Screen	1, 4, 9, 16 Split Screen	1, 4 Split Screen	1, 4, 6, 9, 10, 13, 16 Split Screen
	Auto Scan	•	•	•	•
	Digital PTZ Control	•	•	•	•
	Auto Pan/Patrol	•	•	•	•
	One-/Two-Way Audio	Two-Way Audio	Two-Way Audio	One-Way Audio	Two-Way Audio
Video Management – Recording	Recording Type	Schedule/ Manual/ Event (Motion)	Schedule/ Manual/ Event (Motion)	Schedule/ Manual/ Event ( Motion)	Schedule/ Manual/ Event (DI/ Motion)
	Pre-Recording/ Post-Recording Period	Pre-Rec: 60 seconds Post-Rec: 300 seconds	Pre-Rec: 60 seconds Post-Rec: 300 seconds	Pre-Rec: 30 seconds Post-Rec: 180 seconds	Pre-Rec: 60 seconds Post-Rec: 300 seconds
	Audio Recording	•	•	•	•
	Auto Recycling (Disk Capacity)	•	•	•	•
	Simultaneously Playback Channels	9	16	4	16
Video Management – Playback	Playback Mode	Video Control (Play, Stop, Pause, Forward, Backward, Next, Previous)	Video Control (Play, Stop, Pause, Forward, Backward, Next, Previous)	Video Control (Play, Stop, Pause, Forward, Backward, Next, Previous)	Video Control (Play, Stop, Pause, Forward, Backward, Next, Previous)
	Video Search (Factor)	• (Time, Event, Camera)	• (Time, Camera)	• (Time, Event, Camera)	• (Time, Event, Camera)
	Smart/ Intelligent Search (Factor)				• (Motion Detection)
	Video Export File Format	AVI	AVI	AVI	AVI
	Image Export File Format	BMP/JPG	BMP/JPG	JPG	BMP/JPG
	Tamper-Proof (Digital Watermark)	•	•		•
	I/O Control				•
Event Management	Event to Email	•	•	•	•
	Event to Alarm	•	•	•	•
	Event by Signal Lost	•	•	•	•
	Event by Disk Full	•	•		•
	Client Viewer	Browser/mydlink™ View NVR APP	Browser/mydlink™ View NVR APP	Browser/mydlink™ View NVR APP	Browser/JustConnect+ APP
Remote Access	Remote View	•	•	•	•
	Concurrent Channels per Client (Max)	9	9	4	16
	E-Map Layers	3	3		3
E-Map	E-Map Image Format	BMP/ JPG	BMP/ JPG		BMP/ JPG
	Supported Cameras	D-Link	D-Link / ONVIF	D-Link	D-Link / ONVIF
Compatibility	Auto Surveillance VLAN Support	•	•	•	•
	Hard Disk Bays	1 x 3.5" SATA HDD, Max. 6TB	2 x 3.5" SATA HDD, Max. 16TB	2 x External 2.5" USB HDD	2 x 3.5" SATA HDD, Max. 16TB
Hardware	Hard Disk Configuration	Single	Single, RAID 0 / 1, JBOD		Single, RAID 0 / 1, JBOD
	NAS (File Server)				
	Network Interface	1 x Gigabit Port	1 x Gigabit Port	1 x Fast Ethernet Port	1 x Gigabit Port 4 x 10/100 PoE Ports (802.3af)
	Auto Boot-Up (Power Recovered)	•	•		•
	Dimensions	49.8 x 141.6 x 173 mm	193.2 x 144.4 x 90 mm	117.5 x 70 x 20.35 mm	300 x 225 x 63 mm
	Weight	425 g	592 g	90 g	2.1 kg
	Power Consumption	30 W	25.20 W	8.5 W	90 W
	Operation Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
	mydlink™ Functions	Live View, Playback, Disk/Camera Status	Live View, Playback, Disk/Camera Status	Live View, Playback, Disk/Camera Status	

### What does JBOD mean?

JBOD stands for 'Just a Bunch of Disks' – essentially a collection of independent hard drives – where each disk is accessible separately or as a combined (spanned) single logical volume rather than through a collective RAID interface. It offers no redundancy or performance advantages, so if the 'bunch' of disks is operating as a spanned volume and one drive fails, the whole lot fail.

### What is mydlink™?

mydlink™ is a cloud-based platform that maintains a live link between your mydlink™-enabled product via the Internet and your mydlink™ smartphone/tablet app, so that you can always be in control, wherever you are and whenever you want. Whether you want to access, control, monitor or store, there is a mydlink™ product, and supporting smartphone or tablet app, to help you. Just look for the mydlink™ logo...



# Analog CCTV Cameras

Based on latest technology, D-Link analog CCTV camera provide high definition (HD) video over coaxial cable at distances of up to 300m. Specially designed for analog users who want a high-definition surveillance system, this line allows users to enjoy HD without upgrading to IP or even replacing their existing cabling structures. Providing impressive image quality, the camera line offers incredibly durable, weather proof products with features such IR , Wide Dynamic Range (dWDR) and Support AHD/TVI/ CVI/CVBS Output.

## DCS-F1622

### 2MP Full HD Day & Night Indoor / Outdoor Analog Varifocal Dome Camera



- 1 /2.7" 2 Megapixel Progressive Scan CMOS sensor
- Full HD 1920 x 1080 resolution
- Varifocal Lens 2.8-12mm
- Wide Dynamic Range (dWDR) technology
- Support AHD/TVI/CVI/CVBS Output
- Up to 35 m night vision with integrated IR illuminator
- Video Transmission 75-5ohm 300m
- IP66 compliant weatherproof housing

## DCS-F1722

### 2MP Full HD Day & Night Indoor / Outdoor Analog Varifocal Bullet Camera



- 1 /2.7" 2 Megapixel Progressive Scan CMOS sensor
- Full HD 1920 x 1080 resolution
- Varifocal Lens 2.8-12mm
- Wide Dynamic Range (dWDR) technology
- Support AHD/TVI/CVI/CVBS Output
- Up to 35 m night vision with integrated IR illuminator
- Video Transmission 75-5ohm 300m
- IP66 compliant weatherproof housing

## DCS-F1612

### 2MP Full HD Day & Night Indoor Analog Dome Camera



- 1 /2.7" 2 Megapixel Progressive Scan CMOS sensor
- Full HD 1920 x 1080 resolution
- Fixed Lens 3.6mm / 6mm
- Wide Dynamic Range (dWDR) technology
- Support AHD/TVI/CVI/CVBS Output
- Up to 20 m night vision with integrated IR illuminator
- Video Transmission 75-5ohm 300m

## DCS-F1712

### 2MP Full HD Day & Night Indoor / Outdoor Analog Bullet Camera



- 1 /2.7" 2 Megapixel Progressive Scan CMOS sensor
- Full HD 1920 x 1080 resolution
- Fixed Lens 3.6mm / 6mm
- Wide Dynamic Range (dWDR) technology
- Support AHD/TVI/CVI/CVBS Output
- Up to 30 m night vision with integrated IR illuminator
- Video Transmission 75-5ohm 300m
- IP66 compliant weatherproof housing

### DCS-F1611

#### 1MP HD Day & Night Indoor Analog Dome Camera



- 1 /4" 1 Megapixel Progressive Scan CMOS sensor
- HD 1280 x 720 resolution
- Fixed Lens 3.6mm / 6mm
- Wide Dynamic Range (dWDR) technology
- Support AHD/TVI/CVI/CVBS Output
- Up to 20 m night vision with integrated IR illuminator
- Video Transmission 75-5ohm 300m

### DCS-F1711

#### 1MP HD Day & Night Indoor / Outdoor Analog Bullet Camera



- 1 /4" 1 Megapixel Progressive Scan CMOS sensor
- HD 1280 x 720 resolution
- Fixed Lens 3.6mm / 6mm
- Wide Dynamic Range (dWDR) technology
- Support AHD/TVI/CVI/CVBS Output
- Up to 30 m night vision with integrated IR illuminator
- Video Transmission 75-5ohm 300m
- IP66 compliant weatherproof housing



MODEL	DCS-F1622	DCS-F1722	DCS-F1612	DCS-F1712	DCS-F1611	DCS-F1711
<b>CAMERA</b>						
Image sensor	1/2.7" CMOS	1/2.7" CMOS	1/2.7" CMOS	1/2.7" CMOS	1/4" CMOS	1/4" CMOS
Day & Night	ICR					
Shutter Speed	PAL:1/50-1/50000, NTSC:1/60-1/60000					
Wide Dynamic Range	dWDR					
Digital Noise	≥50dB					
Reduction	2D					
Lens	2.8-12mm	2.8-12mm	3.6mm	3.6mm	3.6mm	3.6mm
FOV	90°~35°	90°~35°	85°	85°	85°	85°
IR Range	up to 35m	up to 35m	up to 20m	up to 30m	up to 20m	up to 30m
OSD Joystick	Optional					
<b>IMAGE</b>						
Effective Resolution	1920x1080	1920x1080	1920x1080	1920x1080	1280 x 720	1280 x 720
Frame	PAL:25fps, NTSC:30fps					
Video Output	AHD or TVI or CVI or CVBS					
<b>GENERAL</b>						
Power Supply	DC12V±10%					
Operating Temperature	-10°C ~ 55°C (14°F ~ 131°F)					
IP Rating	IP66	IP66		IP66		IP66
Product Dimensions	119x100mm	228×69mm	90×70mm	176×60mm	90×70mm	170×60mm
Product Weight	650g	520g	146g	300g	146g	300g

# Hybrid Digital Video Recorders (DVR)

Our selection of hybrid DVR recorders are able to record video and data from both traditional analog and network IP security cameras. The advantage of a hybrid digital video recorder is that it lets you use compatible analog security equipments along with newer network IP technology. This enables you to upgrade your surveillance system to IP equipment at your own pace, according to your budget. Our hybrid recorders feature multiplex operation so that you can record, live view, play back, and back up your video at the same time. Connect our hybrid digital video recorders to your network in order to remotely view your security camera system via a web browser or via our free smartphone app from any location.

## DVR-F2104 4CH 1HDD Hybrid DVR



- 4ch BNC (AHD/TVI/CVI/CVBS)
- 1ch VGA, 1ch HDMI Video output
- 1 SATA Hard drive Bay (up to 6TB HDD)
- 1 RJ45 10/100Mbps network interface port
- Audio Input : 4ch RCA , Audio Output : 1ch RCA
- RS485, Support Multiple PTZ Protocols
- 2 x 2.0 USB port
- D-Link CCTV mobile app supported

## DVR-F2108 8CH 1HDD Hybrid DVR



- 8ch BNC (AHD/TVI/CVI/CVBS)
- 1ch VGA, 1ch HDMI Video output
- 1 SATA Hard drive Bay (up to 6TB HDD)
- 1 RJ45 10/100Mbps network interface port
- Audio Input : 4ch RCA , Audio Output : 1ch RCA
- RS485, Support Multiple PTZ Protocols
- 2 x 2.0 USB port
- D-Link CCTV mobile app supported

## DVR-F2216 16CH 2HDD Hybrid DVR



- 16ch BNC (AHD/TVI/CVI/CVBS)
- 1ch VGA, 1ch HDMI Video output
- 2 SATA Hard drive Bay (up to 6TB HDD each bay)
- 1 RJ45 10/100Mbps network interface port
- Audio Input : 4ch RCA , Audio Output : 1ch RCA
- Alarm Input: 6ch, Alarm Output: 1ch
- RS485, Support Multiple PTZ Protocols
- 2 x 2.0 USB port
- D-Link CCTV mobile app supported



MODEL	DVR-F2104	DVR-F2108	DVR-F2216
<b>VIDEO</b>			
Video Compression	H.264 High Profile	H.264 High Profile	H.264 High Profile
Encode Ability	4ch*1080P@12fps	8ch*1080P@12fps	16ch*1080P@12fps
Decode Ability	4ch*1080P@12fps	8ch*1080P@12fps	16ch*1080P@12fps
Video Input	Pure Analog: 4ch*1080P @ 30fps; Mixed Input: 4ch*1080P(Analog+IP); Pure Network: 4ch*1080P/3MP/5MP	Pure Analog: 8ch*1080P @ 30fps; Mixed Input: 8ch*1080P(Analog+IP); Pure Network: 8ch*1080P/3MP/5MP	Pure Analog: 16ch*1080P @ 30fps; Mixed Input: 16ch*1080P(Analog+IP); Pure Network: 16ch*1080P/3MP/5MP
<b>AUDIO</b>			
Audio Compression	G.711A	G.711A	G.711A
Two Way Audio	.	.	.
<b>RECORD AND PLAYBACK</b>			
Hard Drive	1 SATA	1 SATA	2 SATA
Record	Manual/Event/Timer	Manual/Event/Timer	Manual/Event/Timer
Playback	4ch (pure local input mode)	8ch (pure local input mode)	16ch (pure local input mode)
<b>INTERFACE</b>			
Video BNC	4ch BNC (AHD/TVI/CVI/CVBS)	8ch BNC (AHD/TVI/CVI/CVBS)	16ch BNC (AHD/TVI/CVI/CVBS)
Output	1ch VGA, 1ch HDMI	1ch VGA, 1ch HDMI	1ch VGA, 1ch HDMI
Audio	4ch RCA In / 1ch RCA Out	4ch RCA In / 1ch RCA Out	6ch RCA In / 1ch RCA Out
Alarm			4ch In / 1ch Out
Network	1 RJ45 10/100Mbps Adaptive Ethernet Port	1 RJ45 10/100Mbps Adaptive Ethernet Port	1 RJ45 10/100Mbps Adaptive Ethernet Port
USB	2 USB	2 USB	2 USB
<b>GENERAL</b>			
Power	DC12V/2A	DC12V/2A	DC12V/4A
Size	255mm(L) x 255mm(W) x 45mm(H)	255mm(L) x 255mm(W) x 45mm(H)	350mm(L) x 295mm(W) x 45mm(H)

# Video Management Software (VMS)

D-ViewCam Standard Video Management Software (VMS), bundled with D-Link's IP cameras, provides video recording, live view and playback management for IP cameras and video servers. The software enables central management of multiple network cameras for home, small office and small-to-medium business users. Supporting up to 32 network cameras and up to 64 users, D-ViewCam™ is compatible with all current D-Link network cameras and video servers. Offering digital monitoring and recording with a wide array of features, including scheduled, motion and manual recording options for individual needs.

## D-Link Camera Video Management Software (DCMS)

DCMS provides a surveillance solution for managing multiple cameras/NVR/DVR. It is used for Camera/NVR management, real time surveillance and video management.

- Supports up to 64 Channels remote live view
- Supports up to 16 Channels remote playback
- Multi-screen display
- Supports 21 languages

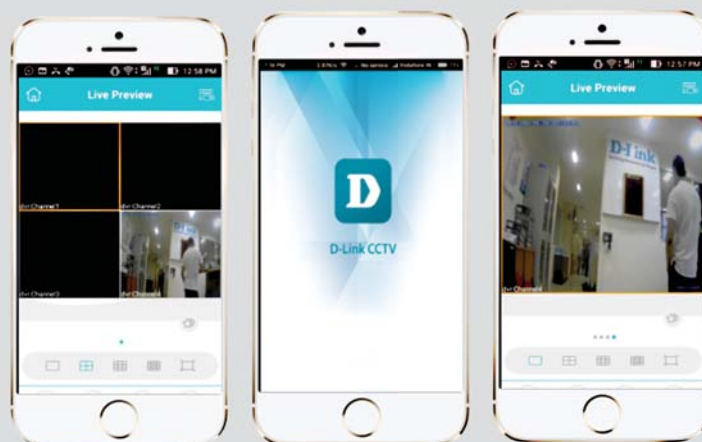


## D-Link CCTV App

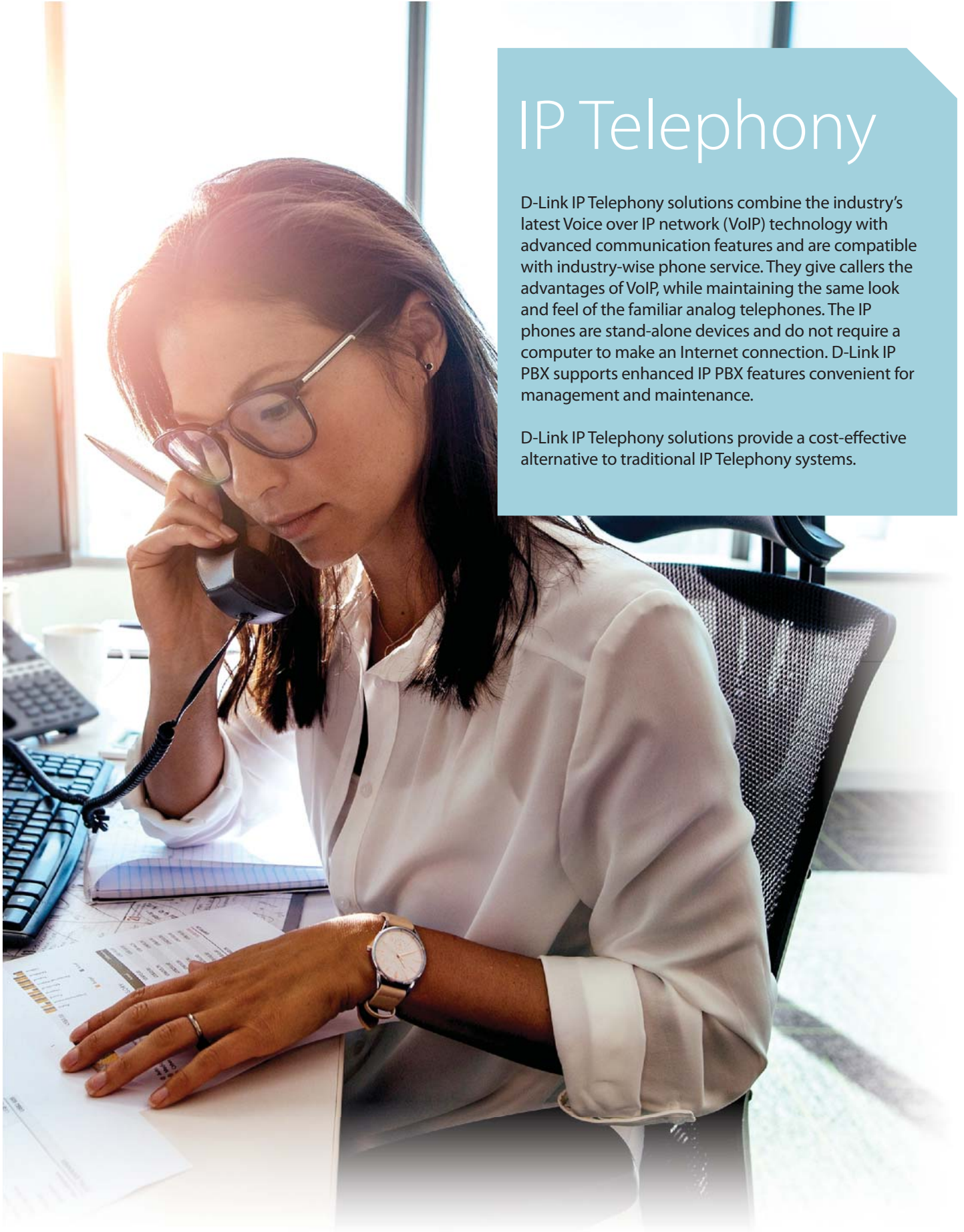
D-Link CCTV App is a mobile application (Android OS or iOS) for IPC, NVR and DVR. User can use this App to add device, viewing live videos, record playback, snapshot, local recording and other functions by a wireless network.

- Easy to use
- Intuitive
- Customizable

Download our app for iOS and Android







# IP Telephony

D-Link IP Telephony solutions combine the industry's latest Voice over IP network (VoIP) technology with advanced communication features and are compatible with industry-wide phone service. They give callers the advantages of VoIP, while maintaining the same look and feel of the familiar analog telephones. The IP phones are stand-alone devices and do not require a computer to make an Internet connection. D-Link IP PBX supports enhanced IP PBX features convenient for management and maintenance.

D-Link IP Telephony solutions provide a cost-effective alternative to traditional IP Telephony systems.

# Range Overview

## VoIP Gateways and Phone Adapters

PHONE ADAPTER



DVG-5102S

FXS/FXO GATEWAYS



DVG-5004S



DVG-5008S

## IP Phones

IP PHONES



DPH-120SE



DPH-150SE



DPH-400G

## IP PBX

IP PBX

DVX-2002F  
DVX-2005F

DVX-3000



DVX-8000



DVX-9000

# VoIP Gateways & Phone Adapters

D-Link's range of Gateways and Phone Adapters typically have one or two phone ports. For large offices, the gateways can have up to 32 phone ports for multiple users to make simultaneous Internet Phone calls. The Station gateways have FXS phone ports that connect to regular phone sets. Ethernet WAN ports that connect to DSL/cable modems and built-in router functions/ Ethernet LAN ports for computer connection. The VoIP trunk gateways are equipped with FXO ports, which can connect to PBX, key telephone systems or PSTN phone lines for analog voice and Ethernet LAN ports which connect to office LAN for VoIP data.

## DVG-5004S

### 4-Port VoIP Station Gateway



- 4 FXS Ports
- 1 Ethernet WAN Port
- 4 Ethernet LAN Ports
- Built-in Router
- Call Detail Records
- Multi-Language Interactive Video Response

## DVG-5008S

### 8-Port VoIP Station Gateway



- 8 FXS Ports
- 1 Ethernet WAN Port
- 4 Ethernet LAN Ports
- Built-in Router
- Call Detail Records
- Multi-Language Interactive Video Response

## DVG-5102S

### 2-Port VoIP Telephone Adapter



- 2 RJ-11 FXS Phone Ports
- 2 Ethernet LAN Ports, 1 Ethernet LAN Port, 1 Ethernet WAN Port
- 3-Way Call Conference (Local Mixer)
- Call Parking
- Call Back on Busy

## Key Series Features

- Save Long Distance/International Phone Charges
- SIP Protocol Support
- Voice Compression Format With Real-Time/Toll Quality
- Multi-Language Interactive Voice Response
- Integrated Switch Ports for Ready Computer Connections

# IP Phones

The IP phones allow callers to take advantage of their DSL/cable modem connection to make inexpensive Internet phone calls. By utilizing the IP phones with a VoIP service plan, home and business users have the potential to dramatically reduce local and long distance telephone charges compared to a standard telephone service.

The IP phones combine the industry's latest Voice over IP network (VoIP) technology with advanced communication features, and are compatible with industry-wide phone service. They give callers the advantages of VoIP, while retaining the same look and feel of the familiar analog telephones.

The IP phones are stand-alone devices and do not require a computer to make Internet connection. They provide Ethernet ports to connect to DSL/cable modems, or to home/office broadband routers. Once connected to the Internet, users are ready to make and receive calls. The IP phones incorporate Quality of Service (QoS) to ensure that voice received through the Internet is the same as or even surpasses that received on the ordinary phone.

## DPH-120SE PoE IP Phone



- 2 Fast Ethernet ports
- 2 SIP lines
- HD Voice
- Phonebook (500 entries)
- LCD Screen
- Voice Message Waiting Indication (VMWI)
- 25 keys Keypad

## DPH-150SE Executive PoE IP Phone



- 2 Gigabit Ethernet ports
- 4 SIP lines
- HD Voice
- Phonebook (1000 entries)
- Color LCD screen
- Intelligent DSS Keys
- Voice Message Waiting Indication (VMWI)
- 38 keys Keypad

## Key Series Features

- Call virtually anywhere through the Internet
- Easy installation and configuration through web-based interface
- Superior Sound
- Echo Cancellation, CNG, VAD and Dynamic Jitter Buffer features for excellent sound quality
- Numerous useful phone functions supported, including Call Transfer, Forward and Hold
- 3-Way Conference, Speed Dial/Phone Book, Caller ID Display and LCD screen
- SIP Protocol Support
- Compatible with popular SIP Internet phone services.

## DPH-400G Business PoE IP Phone



- 2 Gigabit Ethernet ports
- 6 SIP lines
- HD Voice
- Phonebook (1000 entries)
- Color LCD screen
- Intelligent DSS Keys
- Voice Message Waiting Indication (VMWI)
- 42 keys Keypad

# IP PBX: DVX-2000 Series

The all-in-one DVX-2000 Series IP PBX not only provide the traditional basic PBX features (call hold, call forwarding, call waiting, video call, etc.), but also provide enhanced features such as visual operator, voice mail to mail, multi-media music on hold, and auto attendant, etc. In addition, it's very convenient for SMEs' management and maintenance, also easy to upgrade. SMEs can set up own phone system to improve the company image and office efficiency. Incoming calls are directed by the integrated auto-attendant and hunt groups to assist callers to their destinations. It can utilize standard phone lines via an external phone line gateway or cost effective Internet telephony services.

The DVX-2000 Series IP PBX supports up to 100/30 extensions, which can be located anywhere with Internet access. Multiple units can be used to increase the number of extensions or unite a company that has many locations under a single PBX system.

The PBX phone features are user adjustable via the web configuration tool. The administrator assigns each extension a profile of telephony features, which allows the best match for a user's job function. Each user can fine-tune their assigned profile via the web to match their daily business schedule.

## Key Series Features

### AS PBX

- Configurable as core IP or hybrid PBX
- Switches calls & Manages routes
- Connects callers with the outside world over IP/analog (POTS) and digital connections

### AS GATEWAY

- Configurable as media gateway
- Bridges legacy PSTN to the expanding world of IP telephony
- Conversion between a wide range of communications protocols and media codecs

### AS MEDIA/FEATURE SERVER

- Provides IVR and Conference Bridge
- Automated attendant and unified messaging
- Can replace aging legacy voicemail systems

### IN CALL CENTER

- Features built-in ACD systems
- Additional remote IP agent capabilities
- Advanced skills-based routing

### DVX-2002F Asterisk-Based IP PBX with built-in 2 FXO Ports



- Built-in 2 FXO Ports
- 30 Extension Support
- 10 Concurrent Call Support

### DVX-2005F Asterisk-Based IP PBX with built-in 4 FXO Ports



- Built-in 4 FXO Ports
- 100 Extension Support
- 20 Concurrent Call Support
- Expandable up to 8 FXO Ports using DVX-2020 Module

## Technical Specifications

### PROTOCOL STANDARDS

SIP (RFC 3261)  
SDP (RFC 2327)  
RTP (RFC 1889)  
RTCP (RFC 1889)  
Out-Of-Band DTMF (RFC 2833)  
IAX2 (RFC 5456)

### MAIN FEATURES

30/100 extensions  
Supports 10/20 concurrent calls  
Single IP PBX supports multiplesers across multiple sites  
Add external Analog Trunk Gateways to use standard phone-lines  
Web-based Monitoring & Administration  
Call Statistics  
Call Detail Records (CDR)  
Support HTTP upload  
Add / delete the IP phones

batch Ring Group record  
Trunk backup  
Auto config IP phone in a LAN network

### CALLING FEATURES

Business Calling Features  
Caller ID  
Call Transfer (Blind Transfer, Assisted Transfer)  
Call History  
Call Hold  
Call Forwarding (Always/On Busy/on No Answer/ Follow me)  
Call Park  
Ring Group  
Call Pickup  
Video Calls  
VPN Client (PPTP/L2TP)  
VPN Server (PPTP/L2TP)  
DDNS Client  
Support SKYPE for SIP

### IVR/AUTO-ATTENDANT FEATURES

Music on Hold  
Configurable IVR Menu  
Voice Mail  
Mailbox Access control (PIN)  
Configurable Mail Box  
Notification via email

### CONFIGURATION

Secure Web Based Management  
Configuration Backup/Restore

### HARDWARE

DVX-2002F:  
Processor: Dual Core A7 | GHz  
RAM: 512MB DDR3  
Memory: 8GB SD Card

DVX-2005F:  
Processor: Dual Core A7 | GHz  
RAM: 1GB DDR3  
Memory: 8GB SD Card



# IP PBX: DVX-3000

## DVX-3000 Asterisk-Based IP PBX

The DVX-3000 is a stand-alone telephony solution featuring D-Link's EASY VOIZ Distribution & supports various combinations of telephony ports. EAZY VOIZ provides up to 16 E1 R2 / T1 CAS PRI channels, up to 16 PSTN/analog phones ports, up to 8 BRI ISDN channels, and up to 30 concurrent SIP calls. The DVX-3000 supports up to 100 extensions, which can be located anywhere with Internet access. Multiple units can be used to increase the number of extensions or unite a company that has many locations under a single PBX system. Phone conferencing is typically an expensive external hardware or service. The DVX-3000 includes a phone conferencing bridge, which makes it unsurpassed for value and features. Users are able to schedule and invite parties to conferences via the web configuration.



## EXPANSION MODULES & INTERFACE CARDS

DVX-8010	Expansion module for DVX-3000 for maximum 4 modular interface	
DVX-8020	8-port FXO module for DVX-3000	
DVX-8025	8-port FXS module for DVX-3000	
DVX-8030	4-port PRI module for DVX-3000	
DVX-8040	4-port BRI module for DVX-3000	

## Key Series Features

### AS PBX

- Configurable as core IP or hybrid PBX
- Switches calls & Manages routes
- Connects callers with the outside world over IP/analog (POTS) and digital connections

### AS GATEWAY

- Configurable as media gateway
- Bridges legacy PSTN to the expanding world of IP telephony
- Conversion between a wide range of communications protocols and media codecs

### AS MEDIA/FEATURE SERVER

- Provides IVR and Conference Bridge
- Automated attendant and unified messaging
- Can replace aging legacy voicemail systems

### IN CALL CENTER

- Features built-in ACD systems
- Additional remote IP agent capabilities
- Advanced skills-based routing

## Technical Specifications

### PROTOCOL STANDARDS

SIP (RFC 3261)  
SDP (RFC 2327)  
RTP (RFC 1889)  
RTCP (RFC 1889)  
Out-Of-Band DTMF (RFC 2833)  
IAX2 (RFC 5456)

### MAIN FEATURES

300 extensions  
Supports 60 concurrent calls  
Single IP PBX supports multiplexers across multiple sites  
Add external Analog Trunk Gateways to use standard phone-lines  
Web-based Monitoring & Administration  
Call Statistics  
Call Detail Records (CDR)

### CALLING FEATURES

Business Calling Features  
Caller ID  
Call Transfer (Blind Transfer, Assisted Transfer)  
Call History  
Call Hold  
Call Forwarding (Always/On Busy/on No Answer/Follow me)  
Call Park  
Ring Group  
Call Pickup

### IVR/AUTO-ATTENDANT FEATURES

Music on Hold  
Configurable IVR Menu  
Voice Mail  
Mailbox Access control (PIN)  
Configurable Mail Box  
Notification via email

### CONFIGURATION

Secure Web Based Management (EasyVoiz)  
Configuration Backup/Restore

### CONFERENCE SERVER

Access Control  
Conference Recording  
Conferencing from external lines

### HARDWARE

Processor: A7 PU 900 MHz  
RAM: 1 GB  
Hard disk: 8 GB SD Card  
USB: 2 external USB 2.0 ports

# IP PBX: DVX-8000

## DVX-8000 Asterisk-Based IP PBX

The DVX-8000 is an Intel-Dualcore Asterisk®-based IP PBX. The DVX-8000 features EASY VOIZ distribution with various combinations of telephony ports. The device can be equipped with up to 32 analog ports, or a single PRI module. The DVX-8000 supports up to 160 PSTN Analog phones ports with external Gateway units. It can handle up to 300 users and up to 60 concurrent calls. The DVX-8000 supports up to 300 extensions, which can be located anywhere with Internet access. Multiple units can be used to increase the number of extensions or unite a company that has many locations under a single PBX system. Phone conferencing is typically an expensive external hardware or service. The DVX-8000 includes a phone conferencing bridge, which makes it unsurpassed for value and features. Users are able to schedule and invite parties to conferences via the web configuration.



### EXPANSION MODULES & INTERFACE CARDS

DVX-8010	Expansion module for DVX-8000 for maximum 4 modular interface	
DVX-8020	8-port FXO module for DVX-8000	
DVX-8025	8-port FXS module for DVX-8000	
DVX-8030	4-port PRI module for DVX-8000	
DVX-8040	4-port BRI module for DVX-8000	

### Key Series Features

#### AS PBX

- Configurable as core IP or hybrid PBX
- Switches calls & Manages routes
- Connects callers with the outside world over IP/analog (POTS) and digital connections

#### AS GATEWAY

- Configurable as media gateway
- Bridges legacy PSTN to the expanding world of IP telephony
- Conversion between a wide range of communications protocols and media codecs

#### AS MEDIA/FEATURE SERVER

- Provides IVR and Conference Bridge
- Automated attendant and unified messaging
- Can replace aging legacy voicemail systems

#### IN CALL CENTER

- Features built-in ACD systems
- Additional remote IP agent capabilities
- Advanced skills-based routing

## Technical Specifications

#### PROTOCOL STANDARDS

SIP (RFC 3261)  
SDP (RFC 2327)  
RTP (RFC 1889)  
RTCP (RFC 1889)  
Out-Of-Band DTMF (RFC 2833)  
IAX2 (RFC 5456)

#### MAIN FEATURES

300 extensions  
Supports 60 concurrent calls  
Single IP PBX supports multiplexers across multiple sites  
Add external Analog Trunk Gateways to use standard phone-lines  
Web-based Monitoring & Administration  
Call Statistics  
Call Detail Records (CDR)

#### CALLING FEATURES

Business Calling Features  
Caller ID  
Call Transfer (Blind Transfer, Assisted Transfer)  
Call History  
Call Hold  
Do Not Disturb  
Call Forwarding (Always/On Busy/on No Answer/ Follow me)  
Call Park  
Ring Group  
Call Pickup

#### IVR/AUTO-ATTENDANT FEATURES

Music on Hold  
Configurable IVR Menu  
Voice Mail  
Mailbox Access control (PIN)  
Configurable Mail Box  
Notification via email

#### CONFIGURATION

Secure Web Based Management (EasyVoiz)  
Configuration Backup/Restore

#### CONFERENCE SERVER

Access Control  
Conference Recording  
Conferencing from external lines

#### HARDWARE

Processor: Intel Dual Core 1.8GHz  
RAM: 2 GB  
Hard disk: 320 GB  
USB: 2 external USB 2.0 ports

# IP PBX: DVX-9000

## DVX-9000 Asterisk-Based IP PBX

The DVX-9000 is an Intel-G850® Asterisk®-based IP PBX. The DVX-9000 features EASY VOIZ distribution with various combinations of telephony ports. The device can be equipped with up to 32 analog ports, or 4E1 ports. The DVX-9000 supports up to 800 PSTN Analog phones ports with external Gateway units. It can handle up to 800 users and up to 300 concurrent calls.

### FULL AND AUTOMATIC PBX REDUNDANCY

DVX-9000 series IP PBX system provides automatic detection of server failure and immediate switching of all telephony functions, including telephony interfaces, to a back-up server within seconds. An optional Redundancy functionality can be activated using an software module this is not shipped along with the system but its available on request.



## EXPANSION MODULES & INTERFACE CARDS

DVX-8010	Expansion module for DVX-9000 for maximum 4 modular interface	
DVX-8020	8-port FXO module for DVX-9000	
DVX-8025	8-port FXS module for DVX-9000	
DVX-8030	4-port PRI module for DVX-9000	
DVX-8040	4-port BRI module for DVX-9000	
DVX-8050	xStack USB stacking redundancy module for DVX-9000	

## Key Series Features

### AS PBX

- Configurable as core IP or hybrid PBX
- Switches calls & Manages routes
- Connects callers with the outside world over IP/analog (POTS) and digital connections

### AS GATEWAY

- Configurable as media gateway
- Bridges legacy PSTN to the expanding world of IP telephony
- Conversion between a wide range of communications protocols and media codecs

### AS MEDIA/FEATURE SERVER

- Provides IVR and Conference Bridge
- Automated attendant and unified messaging
- Can replace aging legacy voicemail systems
- Redundancy Server Features

### IN CALL CENTER

- Features built-in ACD systems
- Additional remote IP agent capabilities
- Advanced skills-based routing

## Technical Specifications

### PROTOCOL STANDARDS

SIP (RFC 3261)  
SDP (RFC 2327)  
RTP (RFC 1889)  
RTCP (RFC 1889)  
Out-Of-Band DTMF (RFC 2833)  
IAX2 (RFC 5456)

### MAIN FEATURES

800 extensions  
Supports 300 concurrent calls  
Single IP PBX supports multiplesers across multiple sites  
Add external Analog Trunk Gateways to use standard phone-lines  
Web-based Monitoring & Administration  
Call Statistics  
Call Detail Records (CDR)

### CALLING FEATURES

Business Calling Features  
Caller ID  
Call Transfer (Blind Transfer, Assisted Transfer)  
Call History  
Call Hold  
Do Not Disturb  
Call Forwarding (Always/On Busy/on No Answer/Follow me)  
Call Park  
Ring Group  
Call Pickup

### IVR/AUTO-ATTENDANT FEATURES

Music on Hold  
Configurable IVR Menu  
Voice Mail  
Mailbox Access control (PIN)  
Configurable Mail Box  
Notification via email

### CONFIGURATION

Secure Web Based Management (EasyVoiz)  
Configuration Backup/Restore

### CONFERENCE SERVER

Access Control  
Conference Recording  
Conferencing from external lines

### HARDWARE

Processor: Intel G850 2.9GHz  
RAM: 4 GB  
Hard disk: 320 GB  
USB: 4 external USB 2.0 ports

# Structured Cabling Solutions

The structured cabling infrastructure is important when building up a network for data centres, office buildings, apartments, and campuses. At D-Link, we provide high quality UTP cables, optical fiber cables as well as the accessories that comply to industry TIA/EIA standard.

## COPPER

### Cables

#### Cat 7 SFTP

- Comply with Cat 7 specifications
- 4-pair unshielded twisted pair (UTP) cable
- 23 AWG solid copper conductor for superior conductivity
- PE insulation
- PVC Jacket
- Verified compliant with EIA/TIA standards by ETL



#### Cat 6 UTP

- Comply with Cat 6 specifications
- 4-pair unshielded twisted pair (UTP) cable
- 23 AWG solid copper conductor for superior conductivity
- PE insulation
- PE central cross
- PVC/LSZH Jacket
- Verified compliant with EIA/TIA standards by ETL



#### Cat 5e UTP

- Comply with Cat 5e specifications
- 4-pair unshielded twisted pair (UTP) cable
- 24AWG solid copper conductor for superior conductivity
- PE insulation
- PVC Jacket
- Verified compliant with EIA/TIA standards by ETL



#### Cat 6A UTP

- Comply with Cat 6A specifications
- 4-pair unshielded twisted pair (UTP) cable
- 23 AWG solid copper conductor for superior conductivity
- HD-PE insulation, PE central cross
- PVC/LSZH Jacket
- Verified compliant with EIA/TIA standards by ETL



#### Cat 6 SFTP

- Comply with Cat 6 specifications
- 4-pair unshielded twisted pair (UTP) cable
- 23 AWG solid copper conductor for superior conductivity
- PE insulation
- PE central cross
- PVC/LSZH Jacket
- Verified compliant with EIA/TIA standards by ETL



#### Cat 5e SFTP

- Comply with Cat 5e specifications
- 4-pair screened twisted pair Cable
- 24AWG solid copper conductor
- Pairs are wrapped in polyester tape and aluminum foil with drain
- PE insulation
- PVC Jacket
- Verified compliant with EIA/TIA standards by ETL



### Patch Cord

#### Cat 6A UTP

- Conductor: 24 AWG, Multi-cores
- Insulation Material: HD-PE
- 10 Gbit/s Networks.
- Low Cross Talk and Alien Cross Talk.
- 8P8C (RJ-45) modular connectors with straight-through T568A or T568B wiring.



#### Cat 6 UTP

- Conductor: 24 AWG, Multi-strands
- Insulation Material: HD-PE
- Gigabit network
- 8P8C (RJ-45) modular connectors with straight-through T568A or T568B wiring.



#### Cat 6 STP

- Conductor: 24 AWG, Multi-cores
- Insulation Material: HD-PE
- Outside Tape metal: MYLAR
- Drain Wire: 26 AWG
- Gigabit network
- Low Cross Talk.
- 8P8C (RJ-45) modular connectors with straight-through T568A or T568B wiring.



#### Cat 5e UTP

- Insulation Material: High Density Polyethylene
- 100 Mbit/s or a gigabit networks.
- Low Cross Talk.
- 8P8C (RJ-45) modular connectors with straight-through T568A or T568B wiring.



### Key Stone Jack & Box

#### Cat 6A UTP

- RJ45 8P 8C 50u Jack
- Terminating 4 pairs, suitable for 23-26 AWG stranded & solid wire compatible with both 110 & Krone punch down tools
- Universal labels color coded for T568A and T568B wiring schemes
- Fitting in density keystone patch panel



#### Cat 6 UTP

- RMS 8P 8C 50u Jack
- Terminating 4 pairs, 23-26 AWG cable
- Universal labels color coded for T568A and T568B wiring schemes
- Fit in High-Density Keystone Panel
- 3P/ETL verified unshielded EIA/TIA connecting hardware



#### Cat 5e UTP

- RJ45 8P 8C 50u Jack
- laminating 4 pairs, 23-24 AWG cable
- Universal labels color coded for T568A and T568B wiring schemes
- Fit in High-Density Keystone Panel



### Patch Panels & Face Plate

#### Cat 6 UTP

- Six-port RJ45 modules applied
- ID stripes for identifying port allocations
- Terminating 4 pairs, 22-26 AWG, unshielded cable
- Improved cable management with an optional cable management bar
- Simple type, or "T" slot type)
- Universal labels color-coded for T568A and T568B wiring schemes



#### Cat 6 STP

- Hand screw, easy to open cover
- Eight port RJ45 modules applied
- Jack shutter to keep dust away
- Friendly installation, tight angle between IDCs and RMS Jacks
- ID stripes for identifying port allocations
- IOC: suitable for 22-26 AWG stranded and solid wire



#### Cat 5e UTP Loaded

- Six-port RJ45 modules applied
- ID stripes for identifying port allocations
- Terminating 4 pairs, 22-26 AWG, unshielded cable
- Improved cable management with an optional cable management bar
- (Simple type, or "T" slot type)
- Universal labels color-coded for T568A and T568B wiring schemes



#### Cat 5e STP Unloaded

- Hand screw, easy to open cover
- Eight port RJ45 modules applied
- Jack shutter to keep dust away
- Friendly installation, right angle between IDCs & RJ45 jacks
- ID stripes for identifying port allocations



#### Face Plate

- Faceplates are inbuilt with shutters
- Compatible with standard colored keystone jacks
- Faceplates are available in one, two and four ports variant



#### RJ-45 Connectors

- Cat 5e / Cat 6 UTP / STP 8P8C plug

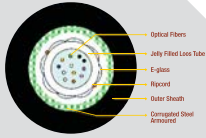


## FIBER

### Cables

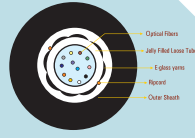
#### Fiber Optic Cable Armoured

- Suitable for Indoor/Outdoor Local Area Network System
- Excellent Water Proof Layer & Good Moisture Resistance
- Excellent Crush Resistance performance, Light weight. Compact structure



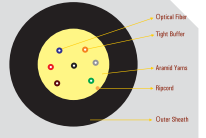
#### Fiber Optic Cable Unarmoured

- Suitable for Indoor/Outdoor (duct) aerial, pipeline
- Excellent Water Proofing performance
- Light weight. small and compact size cable



#### Fiber Optic Cable Tight Buffered

- Suitable for aerial, pipeline, bracket lying
- Suitable for Indoor & outdoor cable
- Light weight, all dielectric self supporting



### LIU

#### Fiber Optic LIU Fixed 1U

- Aluminum base material for light mounting
- Can manage both splices and terminations
- Preassembled shelves in multiple configurations
- Can include adapter panels for maximum 48 LC, 24 SC, 24 ST or 24 FC terminations
- Snap-in locker design, easy to change adapter panels for various connector patching
- Removable front and rear covers for better access to interior of LIU



#### Fiber Optic Sliding LIU

- 1.5mm steel sheet for strong housing
- Ball bearing slid rails with positive stop
- Easy to work for patching the connectors
- Can manage both splices and terminations
- Preassembled shelves in multiple configurations
- Clear plastic cover to protect the fibers



#### Fiber Optic Wall Mount LIU

- Front door design is easy for operation & fibers expansion
- Can manage both splices and terminations
- Easy installation Top & bottom cable entry is easy with rubber plug



### Patch Cord + Pigtail

#### Fiber Optic Patch cord-Simplex

- Adopts high precision ceramic ferrule with good concentricity
- Good geometrical characteristics of apex offset & radius of curvature & fiber height
- Compact & strong crimping offers exceptional tensile strength in cable assemblies
- 100% inspected for optical characteristics & fiber endface finish
- Low insertion loss & return loss, clean and scratch-free end faces
- Good performance endurance under changing circumstances



#### Fiber Optic Patch cord-Duplex

- Adopts high precision ceramic ferrule with good concentricity
- Good geometrical characteristics of apex offset & radius of curvature & fiber height
- Compact & strong crimping offers exceptional tensile strength in cable assemblies
- 100% inspected for optical characteristics & fiber endface finish
- Low insertion loss & return loss, clean and scratch-free end faces
- Good performance endurance under changing circumstances



#### Fiber Optic Pigtails

- Adopts high precision ceramic ferrule with good concentricity
- Advanced termination facilities & process, deliver good geometrical characteristics of apex offset & radius of curvature & fiber height
- 100% inspected for optical characteristics & fiber end face finish
- Low insertion loss & return loss, clean & scratch-free end faces



### Adapter Panel

#### Fiber Optic - SC Adapter

- Compact design
- Telcordia, TIA/EIA,IEC compliance
- High precision alignment
- Low insertion and return loss



#### Fiber Optic - FC Adapter

- Cold tolled steel materials
- Available in 4-24 holes (according to the type of adapters)
- Offer type of 175,109 size module panels
- Suitable for FCLC,SC,ST adapters
- Panel fastener to hold adapter panels securely in place
- Ideal for simple moves, adds and changes



#### Fiber Optic - LC Adapter

- Compact design
- Telcordia, TIA/EIA,IEC compliance
- High precision alignment
- Low insertion and return loss
- Self adjusting metal panel clips
- Duplex adapter SC footprint



### Connectors

#### Fiber Optic - FC Connector

- High Precision Ceramic Ferrule
- High Precision Nickel plated brass housing
- 900um and 3mm strain relief boot



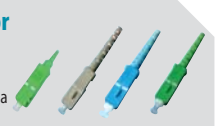
#### Fiber Optic - LC Connector

- High Precision Ceramic Ferrule
- High Precision Polymer housing
- Simplex or Duplex at your choice
- APC Green Polymer housing with 900um and 3mm strain relief boot



#### Fiber Optic - SC Connector

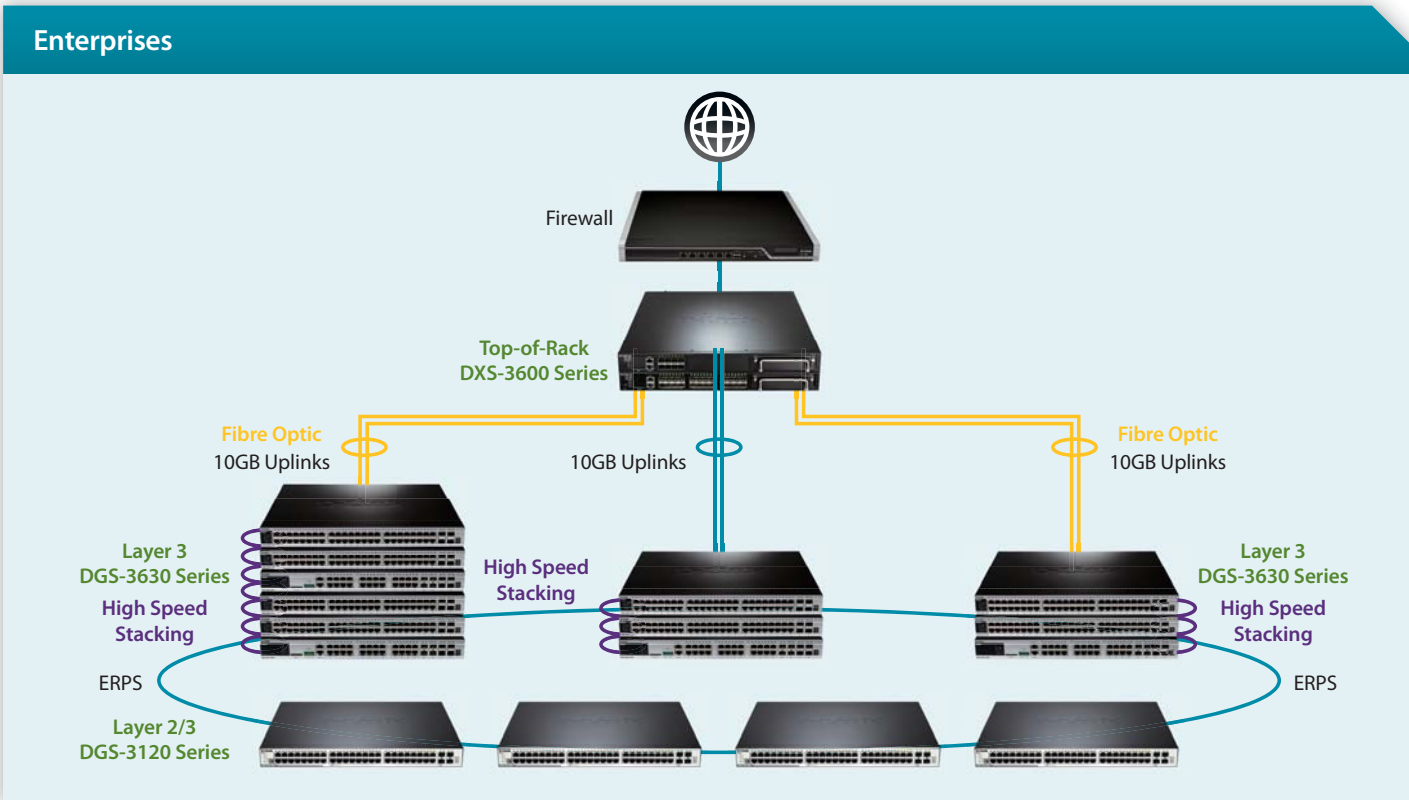
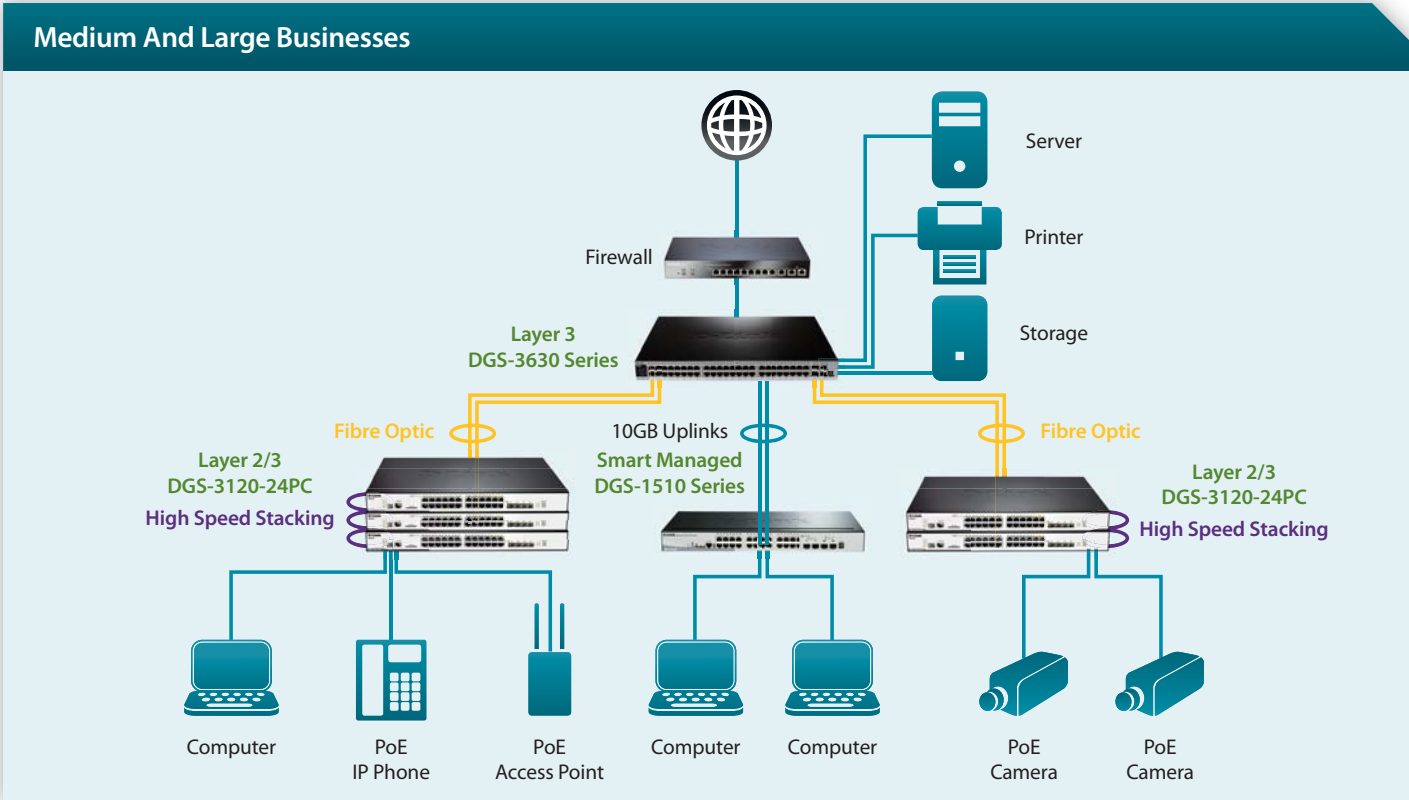
- High Precision Ceramic Ferrule
- High Precision Polymer housing
- Quick Conversion to duplex with a joint clip
- APC Green Polymer housing with 900um and 3mm strain relief boot





# Network Application Scenarios - From Medium to Enterprises Level

Throughout the 30 years, D-Link has been developing, deploying and supporting robust end-to-end networking solutions for businesses around the world, achieving growth, not only for ourselves, but also for our customers. D-Link ranges of products help you find the right solution for your business, from the core of your network to its edge. More performance, scalability, reliability, flexibility, and enhanced functionality at greater value.



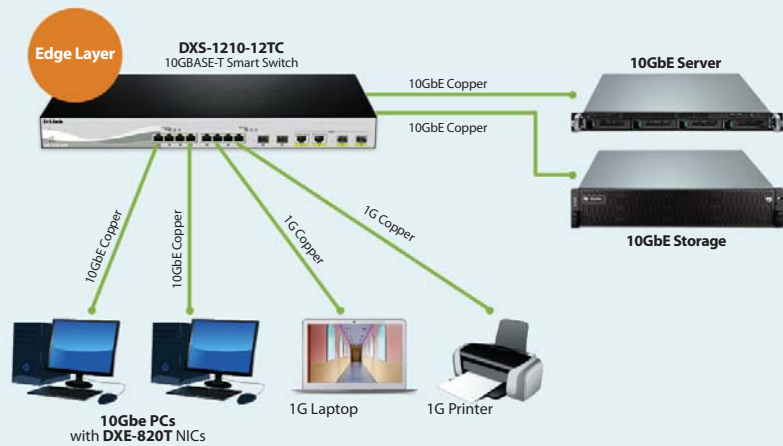
# Network Application Scenarios - 10GbE Solutions For Enterprises

D-Link's 10GbE solutions deliver high performance 10-Gigabit Ethernet switching, ranging from Entry level Layer 2 Smart Managed Switches to Layer 3 Managed Switches. From small office network running 10GbE connections for specialized applications, to Enterprise / Campus / Data Center that require heavy bandwidth demands, D-Link has the right equipment to relieve your bandwidth bottlenecks and keep data traffic flowing at the fastest possible speeds.

## 10GbE Edge Switch

Small office network running specialized applications

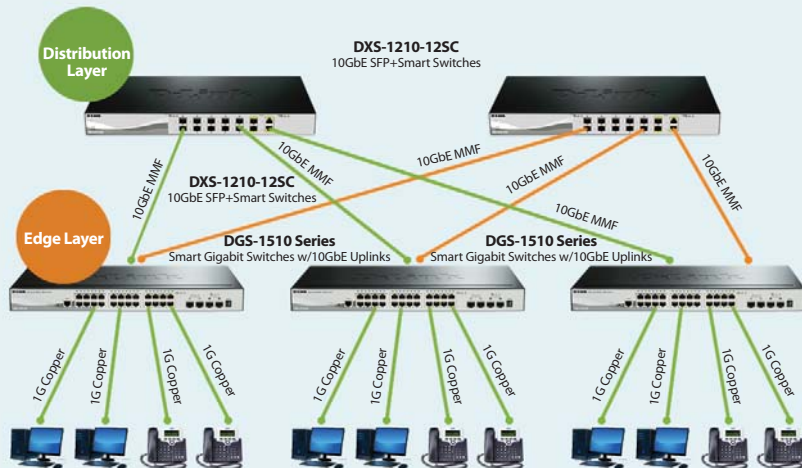
- When employees need 10GbE connections from PCs to Servers and Storage.
- 10GbE copper switch provides connectivity to all devices.
- Can also plug Gigabit devices into switch.



## 10GbE Distribution Switch

Small/medium office network

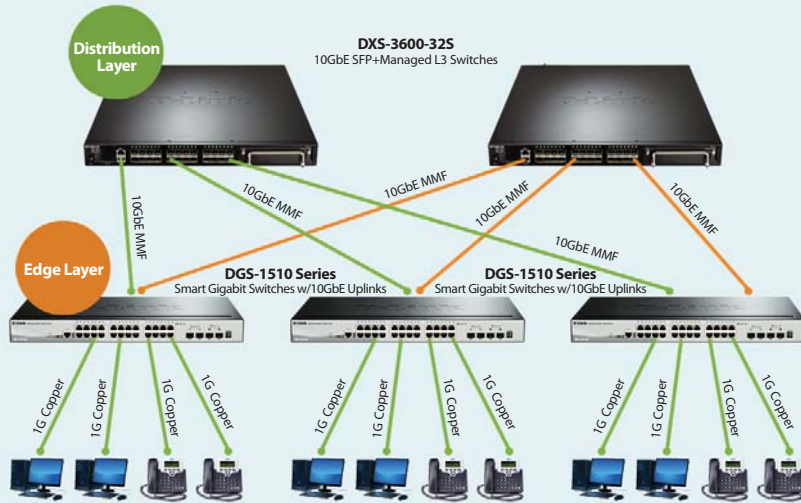
- 10GbE Smart Switches aggregate 10GbE uplinks from edge switches.
- Second switch provides redundancy.
  - ERPS, Spanning tree, etc.



## 10GbE Aggregation Switch

Enterprise/campus network

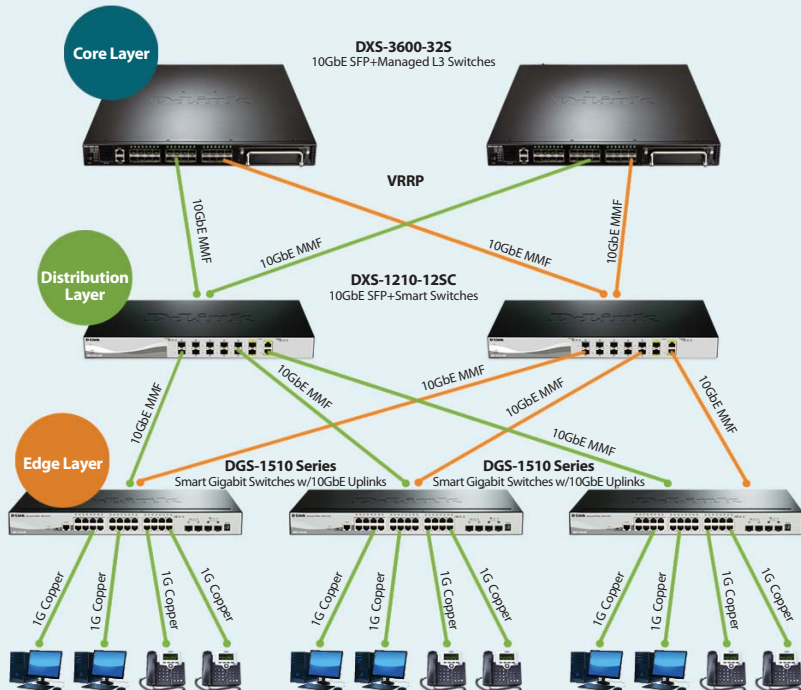
- 10GbE Managed Switches aggregate 10GbE links from gigabit edge switches.
- 40 GbE uplinks eliminate bottlenecks to Core.



## 10GbE Core Switch

Medium business/small enterprise office network

- Managed 10GbE Layer 3 switch at Core layer.
- ERPS, Spanning Tree, VRRP for redundancy.



## 10GbE Top-of-Rack Switch - Small office

### Small office server closet

- Use 10GbE Smart Switch.
- Switch can be 10G copper or 10G SFP+ fiber.



## 10GbE Top-of-Rack Switch

### Enterprise/campus Data Center

- Heavy bandwidth demands.
- Use 10GbE Managed L3 switch.

### Advanced Switching Features

- Cut-through switching, for minimal latency.
- Data Center Bridging.
  - IEEE 802.1Qbb Priority Based Flow Control.
    - Ensures no data loss during network congestion.
  - IEEE 802.1Qaz Enhanced Transmission Selection.
    - Manages the allocation of bandwidth.
  - IEEE 802.1Qau Congestion Notification.
    - Provides congestion management.





## SOUTH EAST ASIA

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www.value.co.th

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Support Email Address: tinnano@newklink.com  
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Fax (65) 6774 6322

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##### MarketForce Integrated Pte Ltd

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www.marketf.com

##### Eternal Asia Distribution PTE LTD

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Asiawide Industrial Building  
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Fax: (66-2) 642 8686  
www.digiland.co.th

##### SiS Distribution (Thailand)

##### Public Company Limited

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Fax: (66-2) 640 3780  
www.sisthai.com

##### VST ECS (Thailand) Co.Ltd

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