## Networking and Video Surveillance for Business



Switching options for all businesses, from small to enterprise level



IP cameras and video surveillance solutions to suit all budgets



The very fastest wireless connections for business users at home or office



Barrel Innonning

allianticia

1. . .

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

For 29 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 bestin-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?

### Contents

#### **Business Solutions**

- 4 Key Solutions
- 8 Introduction to Switches
- **10** Power over Ethernet (PoE)

#### **Chassis Switches**

**12** xStack Chassis Switches DGS-6600 Series

#### **Managed Switches**

- 14 Layer 3 10 Gigabit Stackable Managed Switches DXS-3600 Series
- **16** xStack Layer 3 Gigabit Stackable Managed Switches DGS-3620 Series
- **18** xStack Layer 2+ Gigabit Stackable Managed Switches DGS-3420 Series
- 20 xStack Layer 2 Gigabit Stackable Managed Switches DGS-3120 Series
- 22 Layer 2 Gigabit Managed Switches DGS-3000 Series
- 24 xStack Layer 2 Fast Ethernet Managed Switches DES-3200 Series

#### **Smart Switches**

- 26 10 Gigabit Ethernet Smart
- Managed Switches DXS-1210 Series 28 Gigabit Stackable Smart Managed Switches
- DGS-1510 Series **30** Gigabit Smart+ Switches with Fibre Uplinks
- DGS-1210 Series 32 Gigabit Smart Switches with Fibre Uplinks DGS-1210 Series
- 34 Fast Ethernet Smart Switches DES-1210 Series
- **36** Gigabit Smart Switches DGS-1100 Series
- 38 Fast Ethernet Smart Switches **DES-1100 Series**

#### **Unmanaged Switches**

- **40** Gigabit Unmanaged Switches DGS-1000/DGS-105/108 Series
- 42 Fast Ethernet Unmanaged Switches DES-1000/DES-105/108 Series

#### **Software and Accessories**

- 44 D-View 7 Network Management System
- **46** SFP/SFP+/XFP Transceivers
- 47 Redundant Power Supplies
- 48 Switch Cables

#### 50 Modules and Media Converters

51 Power over Ethernet (PoE) Adapters

#### 52 Business Wireless 53 Wireless AC

- 56 Standalone Wireless Access Points DAP Series
- 58 Standalone Wireless Access Points DAP and DWL Series
- 60 Central WiFiManager
- 62 Unified Wireless Access Points **DWL Series** 64 Unified Wired/Wireless
- Access System DWS-3160 Series 66 Unified Wired/Wireless
- Access System DWS-4026
- 68 Wireless Controllers **DWC Series**
- 70 Antennas and Cables ANT Series
- 71 Wireless Network Adapters DWA Series
- 72 VPN Security Routers 72 VPN Security Routers
- DSR Series

78 Fixed Network Cameras (Wired – Indoor) 80 Fixed Network Cameras (Wired – Outdoor)

74 Video Surveillance

76 Fixed Network Cameras

(Wired / Wireless)

- 82 Panoramic & Mini Dome Cloud Cameras (Indoor)
- 83 Fixed Network Cameras (Wireless – Outdoor) 84 Fixed Dome Network Cameras
- (Wired) 86 Pan, Tilt, Zoom (PTZ) Network
- Cameras (Indoor / Outdoor) **88** Vigilance Camera Range
- (Indoor / Outdoor / Vandal-Proof) 89 Network Camera Accessories
- 90 D-ViewCam<sup>™</sup> / D-ViewCam<sup>™</sup> Plus Video Management Software (VMS)
- 91 Video Encoder 92 Network Video Recorders

#### 94 Network Storage

- 96 Network Attached Storage (NAS) **98** Unified Storage Appliances with NAS and iSCSI
- **100 D-Link Assist 102 Full Product Index**





#### Key Solutions **Core Network** Access Network LAYER 2 ACCESS LAYER 3 CORE ETHERNET SWITCHES ETHERNET SWITCHES DGS-6608 DGS-3120 Series D-Link is a global leader in providing network connectivity solutions DXS-3600 Series SMART SWITCHES for a range of businesses. From the beginning, D-Link engineers have DGS-1510 Series researched, designed and manufactured innovative, standards-based DGS-1210 Series networking solutions that provide our customers with secure, reliable, Aggregation STORAGE easy to manage high-performance networks. We sell our state-of-the-art Network DNS-1560-04 hardware at the best prices, and even though price may be the deciding LAYER 2/LAYER 3 WIRELESS ACCESS factor for many new customers, D-Link's innovation, reliability and service AGGREGATED Standalone keeps them loyal year after year. **ETHERNET SWITCHES** DAP-2695 DGS-3620 Series DAP-2690 Server Farm DGS-3420 Series Network Management System Unified D-View 7 UNIFIED WIRELESS DWL-8600AP Central WiFiManager SOLUTIONS DWL-6600AP DWS-3160 Series **VIDEO SURVEILLANCE** High Performance Cameras Routing Redundancy DCS-7513 DCS-6915 Reliable and Resilient DCS-6513 DCS-6010L DCS-2230 NVR DNR-326 N Dual-Ban **Unified Video** Wired/Wireless **Surveillance Solution** Connectivity Full HD Wireless Camera DCS-2230 Data/Video/Audio (IP Camera, VMS, Solution **Triple Play** Ease of Use Switch, Storage) **Application Solution** Ease of Deployment Megapixel Solution Flexible Expandability Virtual LAN Policy-Based Traffic Prioritisation Standalone NVR/VMS Optimise the Quality of Endpoint Security PoE Switch Single IP Management Multi-Services iscsl san

# Access Network

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

#### **Wireless Connectivity**

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

#### **Power over Ethernet**

D-Link's unparalleled range of PoE switches are designed with functionality and robustness in mind. From unmanaged, plug-and-play solutions, to PoE modules in high-end chassis switches, D-Link offers features like Time-Based PoE to centrally cut off the power when not in use, and the new 802.3at PoE+ 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.

#### **Network Storage**

As business data grows and new technologies like virtualisation become more widely implemented, effective reliable storage is of primary concern. D-Link's range of Network Attached Storage (NAS) devices ensure that all your important data is easily accessible yet protected from unauthorised access. RAID technology protects your content from disk failures and additional services such as FTP and File Server provide secure access to your data from the Internet. For businesses with more complex storage needs, D-Link's Unified Storage Appliances provide advanced features like consolidation, volume snapshots and virtualisation, with a range of devices that are certified 'VMware Ready'.

# 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

Networkswitch technology operates on a 'layer' basis to ensuretotal interoperability. Here'sourquickguidetowhat 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, xStack, Chassis and Unified Wireless, all as detailed below.



#### 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<sup>™</sup> 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

#### Smart Managed

- 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

#### xStack

- Award-winning range
- High performance and 10 Gigabit stacking options
- 10 Gigabit, Gigabit and Fast Ethernet versions, with Layer 2 and Layer 3 features
- PoE-compliant, eliminating the need for external power supplies, thus allowing you to utilise existing cables for a tidier system

#### Chassis

- Enterprise-class performance, security and control
- Modular architecture with redundant control planes option
- High port density with 10 Gigabit line cards available
- High reliability with fault-tolerant topologies ensures rock-solid connectivity, and D-Link Green<sup>™</sup> technology provides eco-friendly power saving
- Redundant loadsharing power supplies and a hot-swappable fan module for mission-critical network applications

#### **Unified Wireless**

- Managed switches which offer flexible deployment, one single device can manage both wired and wireless access traffic – unified switch = wireless controller + LAN switch
- Feature-rich centralised management for wireless Access Points (AP) and clients, including security policy and RF parameters
- Enables seamless wireless roaming without the need for cursor re-authentication: necessary in particular for Voice-over-WLAN (VoWLAN) applications
- Resiliency of the entire wireless network through selfhealing and AP load balancing. The unified switch can effectively manage the wireless bandwidth, optimise WLAN traffic and ensure maximum RF coverage

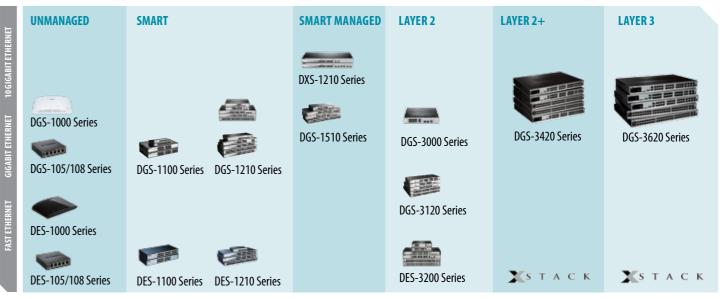
#### **Chassis Switches**



#### **Concentrator Switches**



#### **Standalone Switches**



#### **PoE Switches**

UNMANAGED	SMART	SMART MANAGED	LAYER 2/2+	LAYER 3
DGS-1008P	DGS-1100-08P	DGS-1500-28P (POE+)	DGS-3120-24PC (POE+)	DGS-3620-28PC (POE+)
DGS-1008MP	DGS-1100-24P		DGS-3120-48PC (POE+)	DGS-3620-52P (POE+)
		DGS-1510-28P (POE+)		
	DGS-1210-08P (POE+)		DGS-3420-28PC (POE+)	
	DGS-1210-10P (POE+)		DGS-3420-52P (POE+)	
	DGS-1210-24P (POE+)			
	DGS-1210-28P (POE+)			
	DGS-1210-52P (POE+)		DES-3200-28P (POE+)	
DFS-1005P	DGS-1210-52MP (POE+)		DES-3200-52P (POE+)	
DES-1008PA				
DES-1008MP	DES-1210-08P			
	DES-1210-28P (POE+)			
		🗶 5 ТАСК	🗶 5 ТАСК	🗶 5 ТАСК
	DGS-1008P DGS-1008MP DES-1005P DES-1005P	DGS-1008P DGS-1008MP         DGS-1100-08P DGS-1100-24P           DGS-1008MP         DGS-1210-08P (POE+) DGS-1210-10P (POE+) DGS-1210-24P (POE+) DGS-1210-28P (POE+) DGS-1210-52P (POE+) DGS-1210-52P (POE+)           DES-100SP DES-1008PA DES-1008MP DES-1018P         DES-1210-08P DES-1210-28P (POE+)	DGS-1008P DGS-1008MP         DGS-1100-08P DGS-1100-24P         DGS-1500-28P (POE+)           DGS-1008MP         DGS-1210-08P (POE+)         DGS-1510-28P (POE+)           DGS-1210-10P (POE+)         DGS-1210-24P (POE+)         DGS-1210-24P (POE+)           DGS-1210-22P (POE+)         DGS-1210-28P (POE+)         DGS-1210-28P (POE+)           DES-1005P DES-1008PA DES-1008PA DES-1018P DES-1018P         DES-1210-08P DES-1210-28P (POE+)         DES-1210-28P (POE+)	DGS-1008P DGS-1008MP         DGS-1100-08P DGS-1100-24P         DGS-1500-28P (P0E+) DGS-1510-28P (P0E+)         DGS-3120-24PC (P0E+) DGS-3120-48PC (P0E+)           DGS-1210-08P (P0E+) DGS-1210-10P (P0E+) DGS-1210-24P (P0E+)         DGS-1510-28P (P0E+)         DGS-3420-28PC (P0E+)           DGS-1210-24P (P0E+) DGS-1210-24P (P0E+)         DGS-1210-24P (P0E+)         DGS-3420-28PC (P0E+)           DGS-1210-24P (P0E+)         DGS-1210-24P (P0E+)         DGS-3420-52P (P0E+)           DGS-1210-28P (P0E+)         DGS-1210-28P (P0E+)         DES-3200-28P (P0E+)           DES-100SP DES-1008PA DES-1018P DES-1018P         DES-1210-28P (P0E+)         DES-3200-52P (P0E+)



09

# Power over Ethernet (PoE)

#### What is Power over Ethernet (PoE)?

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

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

#### What is PoE +

The original IEEE 802.3af-2003 PoE standard provides up to 15.4 W of DC power (minimum 44 V DC and 350 mA) to each device. Only 12.95 W is assured to be available at the powered device as some power is dissipated in the cable. The updated IEEE 802.3at PoE standard, also known as PoE+ or PoE plus, provides up to 25.5 W of power. PoE+ is beneficial for devices that require more power, such as Pan-Tilt-Zoom cameras, thin clients and video phones. It also expands PoE functionality to a wider range, making it possible to power a larger number of edge devices from a single PoE port.

#### How can PoE be Green?

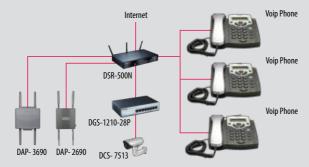
Using D-Link's integrated time-based PoE functionality, it is possible to automatically shut down ports which also shut down the devices on a predefined schedule, saving power and money, and increasing security.

#### What is the PoE Power Budget?

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

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

D-Link has two 'Smart Switch' families to address different requirements – Smart and Smart+. Switches in the Smart+ range have higher power budgets and are capable of providing more power per port than the Smart range which is more economical.



PoE devices can transmit a Discovery Protocol that informs the PoE Switch of the actual power required by the device. If the power is less than the default (15.4W for PoE or 25.5W for PoE+), the PoE switch acknowledges the request with its available power and modifies the power budget accordingly. If the requesting powered device exceeds the power budget for the switch, the port is either powered down, or the port remains in low-power mode.

#### **Benefits of PoE**

#### **Reduced Costs**

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

#### Flexibility

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

#### Reliability

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

#### Network Control

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

#### Add to. Move or Change the network

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

#### **Centralised Power Management**

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

#### Security

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

#### **Eco-Friendly**

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





### **Typical PoE Applications**

#### **IP** Cameras

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



#### **IP Phones**

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



#### Wireless Access Points

Due to their placements, wireless access points are typically powered using PoE, but different types of Wireless APs have different power requirements. For example, dualband concurrent APs require more power as they broadcast on both the 2.4 and 5 GHz frequencies. The latest Wireless AC technology delivers wireless speeds of up to 1300 Mbps on the 5 GHz band with enhanced coverage so can benefit from PoE+'s additional power.

# xStack Chassis Switches

### **DGS-6600 Series**

For a customisable solution based on your business needs, D-Link's DGS-6600 modular chassis series allows you to implement a solution-specific switch with multiple modules. The DGS-6600 is a Layer 3 backbone chassis-based Gigabit switch that provides everything a business needs for a reliable network. This 4-Slot chassis offers a 576 Gbps switch fabric capacity, supporting wire speed L2/L3 packet switching in dynamic or static environments. Some of the features include a high port density, with L2/L3/L4 Class of Service (CoS) and Access Control Lists (ACL), QoS, Link Aggregation, hot-swappable line cards with redundant power supply, and traffic monitoring. Designed for performance and flexibility, this chassis switch offers you the price/performance ratio necessary to deploy a cost-effective enterprise backbone network.





#### **Principle Product Features**

#### DGS-6604-SK

- 4-slot chassis starter kit
- I/O module slots x 3
- CPU module slot x 1
- Switching capacity of up to 576 Gbps
- Up to 144 x Gigabit ports
- Up to 48 x 10 Gigabit ports
- Built-in replaceable fan module
- Built-in dust filter
- Optional redundant power supply
- Includes:
- DGS-6604 4-Slot Chassis
- DGS-6600-CM Control Module
- DGS-6600-PWR 850W AC Power Supply

#### **Available Modules**

#### **10 GIGABIT MODULES** 8-Port 10 Gigabit XFP Module (DGS-6604)

DGS-6600-16XS-D 16-Port 10 Gigabit SFP+ Module with MPLS function DGS-6600 Series

#### GIGABIT MODULES 48-Port 10/100/1000BASE-T Module 24-Port 10/100/1000BASE-T and 24-Port SFP Module

48-Port SFP Module

**PoE MODULES** 

DGS-6608-SK

8-slot chassis starter kit

• I/O module slots x 6

CPU module slots x 2

of up to 1.152 Tbps

• Built-in dust filter

Includes:

• Up to 288 x Gigabit ports

• Up to 96 x 10 Gigabit ports

• Built-in replaceable fan module

Optional redundant power supply

- DGS-6600-CM-II Control Module - DGS-6600-PWR 850W AC Power Supply

- DGS-6608 8-Slot Chassis

Loadsharing/redundant switching capacity

#### 48-Port 10/100/1000BASE-T PoE Module **CPU MODULES** DGS-6600-CM-I Control Module for DGS-6604

and DGS-6608

#### **OPTIONAL REDUNDANT/** REPLACEMENT POWER SUPPLY MODULES 850 W AC Power Supply for

DGS-6604 and DGS-6608 **REPLACEMENT FAN TRAY** Smart Fan Module for DGS-6604



**Key Series Features** 

• 4-/8\*-slot modular chassis

• Hot-swappable line cards Optional redundant power supply

32,000 MAC addresses per module

• 128-trunk group, 8 ports per group

• 4000 IP interfaces

• 4096 static VLANs

8 priority queues

Telnet/console CLI

TFTP client

Traffic monitoring

Web GUI

SYSLOG

SNMP v1,v2c,v3/RMON

CPU utilisation monitoring

Х ТАСК

dlinktgreen

6



MODEL		DGS-6604-SK
	Fast Ethernet	
	Gigabit Ethernet	2 Slats available for any
Interfaces	SFP Slots	3 Slots available for any combination of Ports
	Combo Gigabit/SFP Slots	1 Slot for CPU Module
	10 Gigabit Slots	
	Stackability	
	Stacking Speed (per Port)	576 Char
General	Switching Capacity Forwarding Mode	576 Gbps Store-and-Forward
Features	Packet Buffer Memory	2 MB
	MAC Address Table	32,000 per Module
	Flow Control	802.3x, HOL Blocking Prevention
	MDI/MDIX	Configurable
	Loop Protection	802.1Q, 802.1w, 802.1s
	803.2ad Link Aggregation	128 Groups, 8 Ports per Group
ayer 2 Features	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, F
	Loopback Detection	•
	Cable Diagnostics IP Interfaces	4000
	Routing Protocols	Static, RIP v1/v2, RIPng, OSPF v2/v3, BGP
	Policy-Based Routing	•
Layer 3 Features	Route Balancing	ECMP/WCMP*
	IPv6 Tunneling	Static, ISATAP, 6to4
	VRRP	•
	VLANs	4096 Static; 256 Dynamic
Virtual LAN (VLAN)	GVRP	•
	Protocol VLAN (802.1v)	• Port Paced / Colortina
	Double VLAN (Q-in-Q) Groups	Port-Based / Selective 2000
Multicasting	Protocols	IGMP v1 / v2 / v3, PIM-SM, PIM-DM, PIM S
	Standard	802.1p, DSCP
	Number of Queues	8
Quality of Service (QoS)	Mode	Strict / WRR / Strict+WRR / DRR / WDRR
	CoS Handling	802.1p
	Bandwidth Control	Port-Based, Flow-Based
	STP Security	BPDU Filtering, Root Restriction
	Per-Port MAC Limitation Static MAC	•
	Storm Control	Broadcast / Multicast / Unicast
ecurity	IP-MAC-Port Binding	•
	DHCP Server Screening	•
	ARP Spoofing Prevention	•*
	Traffic Segmentation	
	D-Link SafeGuard Engine	
	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN A
Authentication,	Web-Based Access Control (WAC)	
Authorisation and	MAC-Based Access Control (MAC) Network Access Protection (NAP)	•*
Accounting (AAA)	Guest VLAN	•
	Switch Access	RADIUS / TACACS+, 3-Level User Account
	Rules	(number of entries depending on installed
Access Control Lists (ACL)	ACL Handling	VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port,
	Time-Based ACL	•
	Standard	802.3af (PoE)
Power over Ethernet	PoE Ports	48-Port PoE Module (DGS-6600-48P)
	PoE Power Budget Time-Based PoE	586-2217 W (dependent on number of DG .
	Switch Access	• Web GUI, Telnet, Console
	sFlow	•
	SNMP	v1/v2c/v3
Management	DHCP	Server, Client, Relay (IPv4, IPv6)
	RMON	•
	TFTP Client	•
	Syslog	• Internel Deducide -
	Power Supply	Internal, Redundant
	Maximum Power Consumption Power-Saving Technology	Dependent on Installed Modules
Physical and	Operating Temperature	0°C to 50°C
Environment	Operating Humidity	10% to 90% RH Non-Condensing
	Dimensions (W x D x H)	484 x 470 x 280 mm
	Mana Time Datures Failures (MTDF)	Dependent on installed Modules
	Mean Time Between Failures (MTBF)	
Modulos / Transcoivers	10 Gigabit SFP+ Modules	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-421XT, DEM-423XT

10 Gigabit XEP Transceivers

SFP Transceiver

Modules / Transceivers

DGS-6604-SK	DGS-6608-SK
3 Slots available for any combination of Ports 1 Slot for CPU Module	6 Slots available for any combination of Ports 2 Slots for CPU Module
576 Gbps Store-and-Forward	1.152 Tbps
2 MB	
32,000 per Module 802.3x, HOL Blocking Prevention	
Configurable 802.10, 802.1w, 802.1s	
128 Groups, 8 Ports per Group	
One-to-One, Many-to-One, RX/TX/Both, Flow-Based, RSPAN	
4000 Static, RIP v1/v2, RIPng, OSPF v2/v3, BGP v4, BGP+*	
•	
ECMP/WCMP* Static, ISATAP, 6to4	
•	
4096 Static; 256 Dynamic	
•	
Port-Based / Selective 2000	
IGMP v1 / v2 / v3, PIM-SM, PIM-DM, PIM Spare-Dense	
802.1p, DSCP 8	
Strict / WRR / Strict+WRR / DRR / WDRR	
802.1p Port-Based, Flow-Based	
BPDU Filtering, Root Restriction	
16	
Broadcast / Multicast / Unicast	
•	
.*	
Port-Based, Host-Based, Dynamic VLAN Assignment	
•*	
•	
RADIUS / TACACS+, 3-Level User Account (number of entries depending on installed Modules)	
VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol	
• 802.3af (PoE)	
48-Port PoE Module (DGS-6600-48P)	
586-2217 W (dependent on number of DGS-6600-PWRs installed	()
Web GUI, Telnet, Console	
• v1/v2c/v3	
Server, Client, Relay (IPv4, IPv6)	
• •	
•	
Internal, Redundant Dependent on Installed Modules	
0°C to 50°C	
10% to 90% RH Non-Condensing	
484 x 470 x 280 mm Dependent on installed Modules	445 x 470 x 500 mm
DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD	
DEM-421XT, DEM-423XT DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT	
22 3 1001, 22 3 1 101, 22 3 12.012, 22	

# Layer 3 10 Gigabit Stackable<sup>\*</sup> 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 120G 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
- 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 480 Gigabit 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

#### **Optional Products**

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

DXS-3600-EM-4XT 4-Port 10 GBASE-T Module DXS-3600-EM-8T 8-Port 10/100/1000BASE-T Module DXS-3600-EM-Stack 2-Port 120G CXP Stacking Module (for DXS-3600-325 only

DXS-3600-PWR-FB 300W AC Power Supply with front-to-back airflo

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



**Key Series Features** 

management

Control (PFC)

• 1x 10/100/1000BASE-T Ethernet

port for out-of-band remote

• Fast performance with up to

• 24 fixed SFP+ 10G ports

IEEE 802.1Qaz Enhanced

IEEE 802.1Qau Congestion

MPLS (Enhanced Image)

Three Color Marker (trTCM/srTCM)

Notification (QCN)

Condestion Control

Traffic segmentation

DoS attack prevention

Port security

storm control

Web-based GUI

SNMP & RMON

• LLDP/LLDP-MED

control lists

• SSH

Access Control List (ACL)

Broadcast/multicast/unicast

• L2/L3/L4 multi-layer access

• 802.1x user authentication via

TACACS+ and RADIUS servers

What does SFP mean?

Pluggable, and refers to the

transceivers used to connect

SFP stands for Small Form-Factor

networking devices such as switches

communications network, often over

that you do not need to power-off the

device when plugging or unplugging

or routers to fibre-optic or copper

they are hot-pluggable, meaning

the cable, and operate at up to

Gigabit Ethernet speeds. For faster

SFP+, offers rates of up to 10 Gbps.

connections, Enhanced SFP, known as

Modules / Transceivers

SEP Transce

cable in order to expand a data

• NLB

• ERPS

• OSPF/BGP

Transmission Selection (ETS)

960 Gbps switching capacity

IEEE 802.1Qbb Priority-based Flow



\*Physical stacking only available on DXS-3600-32S

DEM-CB50CXP for use with DXS-3600-EM-Stack Optional 10 Gbps SFP+ Direct Attach Stacking Cables

Ontional 120G Stacking Cable

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

DXS-3600-32S Stacking Cable

DV-700 D-View 7 Network Management System

	DXS-3600 -325
	24
	Virtual Stacking of up to 32 Units; Physical Stacking of up to 4 Units
	960 Gbps
	714.28 Mpps
oup fx/Rx/Both, 4 Mirroring Group x, 4 Mirroring Groups	NS
,, i i i i i i i i i i i i i i i i i i	
ibution, Supports Secondary I	Route, Supports Equal Cost/Weighted Cost, Multi-Path Route
;	
pare-Dense, PIM-SSM, DVMR	P v3. MLD v1
ddress, IP address, IPv6 Traffi ty 8 Kb/s) ity 8 Kb/s)	c class, IPv6 flow label, TCP/UDP port
arity 8 Kb/s)	
ing	
	ed Transmission Selection (ETS),
N), NLB PIM-SM, PIM-DM, PIM-Sparse	e-Dense Mode, PIM-SSM, DVMRP v3, MLD v1/v2
	LS ping and traceroute, L2 protocol tunneling through PW, VPWS, VPLS,
VRRP	
entries, max. 4K IPv6 entries) GPv4, Route Redistribution, I	Pv4 entries, max. 8K IPv6 entries), Supports 8K hardware L3 forwarding , RIP (RIP v1/v2, RIPng), OSPF (OSPF v2, OSPF v3, OSPF Passive Interface, P Directed Broadcast, Policy Based Route
rts Host-based access control, .ignment	Dynamic VLAN Assignment,
sed Access Control (MAC)	
1K VLAN ACL Rules	
Iype, IP Address, DSCP, Protoc	ol Type, TCP/UDP Port Number, IPv6 Traffic Class and flow Lable
	116.8W

# xStack Layer 3 Gigabit Stackable Managed

### DGS-3620 Series

The xStack DGS-3620 Series of next-generation Gigabit Layer 3 Stackable Managed Switches deliver businesses with performance, flexibility, security, multi-layer QoS and access control, along with redundant power solutions. With high Gigabit port densities, Gigabit SFP and 10 Gigabit SFP+ support, and advanced software solutions, these switches can act as either departmental access layer devices or core 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 switches to structure the cores of Fibre to the Building (FTTB) networks that they extend to the subscriber's sites. Each of the five switch models in this series is embedded with two different software images - Standard Image (SI) and the optional Enhanced Image (EI). The Standard Image provides sophisticated



features such as advanced Quality of Service (QoS), traffic shaping, L2 multicasting and robust security features. The Enhanced Image supports ERPS, Double VLAN (Q-in-Q), Ethernet OAM, Static Route, IMPB, sFlow, and IPv6 features which are suitable for the next generation of IPv6 networks or triple-play applications.

• 10/100/1000BASE-T ports x 48

• 10/100/1000BASE-T PoE ports x 48

• 10 Gigabit SFP+ ports x 4

• 10 Gigabit SFP+ ports x 4

#### **Principle Product Features**

#### DGS-3620-28TC

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

#### DGS-3620-28SC

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

#### DGS-3620-28PC

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

DGS-3620-52T

DGS-3620-52P

• 802.3af (PoE) and

(760 W with DPS-700 RPS)

#### **Optional Accessories**

DGS-3620-28TC-SE-LIC DGS-3620-28TC Standard to Enhanced Image Upgrade License DPS-500 DGS-3620-28SC-SE-LIC DGS-3620-28SC Standard to Enhanced Image Upgrade License DGS-3620-28PC-SE-LIC DGS-3620-28PC Standard to Enhanced Image Upgrade License DGS-3620-52T-SE-LIC DGS-3620-52T Standard to Enhanced Image Upgrade License DGS-3620-52P-SE-LIC DGS-3620-52P Standard to Enhanced Image Upgrade License

nal 10 Gbps SFP+ Direct Attach Stacking Cab DEM-CB100S 10 Gigabit SFP+ 1m Direct Attach Stacking Cable 10 Gigabit SFP+ 3m Direct Attach Stacking Cable DEM-CB300S

lant Power Su 140 W Redundant Power Supply for DGS-3620-28TC, DGS-3620-28SC and DGS-3620-52T 589 W Redundant Power Supply for DGS-3620-28PC and DGS-3620-52P DPS-700

DV-700 D-View 7 Network Management System

#### **Key Series Features**

 Physical stack of up to 12 units, totalling up to 576 Gigabit ports MODEL

Fast Ethernet Gigabit Ethernet

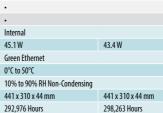
- Up to 80 Gbps full-duplex stacking bandwidth
- Optional external redundant power supply
- 802.1p priority queues/ multi-layer CoS
- Loopback Detection (LBD)
- L2/L3/L4 multi-laver access control • Virtual stack of up to 32 units using
- Single IP Management (SIM) 802.1X Guest VLAN
- IP multicast support for bandwidth-intensive applications
- SSH/SSL support
- Flexible software options with Standard Image (SI) and Enhanced Image (EI) for advanced features
- PoE/PoE+ versions available
- Telnet
- Command line interface (CLI)
- Web-based GUI
- RMON support
- Traffic segmentation
- Supports Microsoft NAP
- D-Link SafeGuard Engine

Interfaces	Gigabit SFP Slots		20	
	Combo 10/100/1000BASE-T/SFP Slots	4	4	4
	10 Gigabit SFP+ Slots	4	4	4
	Stackability	Virtual Stacking of up to 32 Units; F	Physical Stacking of up to 12 Units	
	Stacking Speed	Up to 40 Gbps (80 Gbps full duplex)	)	
	Switching Capacity	128 Gbps	128 Gbps	128 (
General	Forwarding Mode	Store-and-Forward		
Features	Packet Buffer Memory	2 MB		
	MAC Address Table	32,000		
	Flow Control	802.3x, HOL Blocking Prevention		
	MDI/MDIX	Configurable		
	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS		
	803.2ad Link Aggregation	Maximum 32 Groups per Device. 8	Gigabit Ports or 2 10 Gigabit Ports pe	r Group
Layer 2 Features	Port Mirroring	One-to-One, Many-to-One, Flow-B		
•	Loopback Detection	•		
	Cable Diagnostics	•		
	IP Interfaces	256		
	Routing Protocols	Static, RIP v1/v2, RIPng*, OSPF v2,	OSPF v3*, BGP v4*, BGP+ v4*	
	Policy-Based Routing	•		
Layer 3 Features	Route Balancing	ECMP/WCMP		
	IPv6 Tunneling	Static*, ISATAP*, GRE*, 6to4*		
	VRRP	•		
	VLANs	4096 Static; 4096 Dynamic		
	GVRP	•		
Virtual LAN (VLAN)	Protocol VLAN (802.1v)			
	Double VLAN (Q-in-Q)	Port-Based / Selective		
	Groups	2000		
Multicasting	Protocols		N v6*, PIM-DM, PIM Spare-Dense, DV	MRP v2
	Standard	802.1p	i vo , i im om, i im spare bense, ovi	initi və
	Number of Queues	8		
Quality of Service (QoS)	Mode	Strict / WRR / Strict+WRR / WRED		
Quality of Service (Q0S)	CoS Handling		, IPv4, IPv6, DSCP, Port, Protocol, IPv6	Traffic (
	Bandwidth Control	Port-Based, Flow-Based	11 17, 11 10, 0501, 1010, 11010001, 11 10	numee
	STP Security	BPDU Filtering, Root Restriction		
	Per-Port MAC Limitation	•		
	Static MAC	• 16		
	Storm Control	Broadcast / Multicast / Unicast		
Security	IP-MAC-Port Binding	500 Entries		
security	DHCP Spoofing Prevention	JUU LIIUIRS		
	ARP Spoofing Prevention			
	Traffic Segmentation			
	D-Link SafeGuard Engine	•		
	802 1x Authentication	• Port-Based, Host-Based, Dynamic \	/I AN Accignment	
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic V		
Authentication,	MAC-Based Access Control (MAC)			
Authorisation and		Port-Based, Host-Based, Dynamic V	/LAN Assignment	
Accounting (AAA)	Network Access Protection (NAP) Guest VLAN	802.1x NAP, DHCP NAP		
	Switch Access	• RADIUS / TACACS+, 4-Level User Ad	count	
	Rules		rofile; Egress: 4 Profiles, 128 Rules per	r Drofilo
Access Control Lists (ACL)	ACL Handling		, IPv4, IPv6, DSCP, Port, Protocol, IPv6	
ACCESS CONTROL LISUS (ACL)	Time-Based ACL	•	וו זיד, וו זט, שכר, דטונ, דוטנטנטו, וראס	nanic
	Standard			802.3
	PoE Ports			24
Power over Ethernet	TOLITOIS			24
	PoE Power Budget			370 \
	Time-Based PoE			
	Switch Access	Web GUI, Telnet		
	sFlow	•		
	SNMP	V1 / V2c / V3		
Management	DHCP	Server, Client, Relay (IPv4, IPv6)		
	RMON	•		
	TFTP Client			
	Syslog			
	Power Supply	Internal		
	Maximum Power Consumption	45.1W	43.4 W	502.2
	Power-Saving Technology	Green Ethernet		
Physical and	Operating Temperature	0°C to 50°C		
Environment				



🗙 S Т А С К





DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD 10 Gigabit SFP+ Transceivers SEP Transceivers DEM-210, DEM-211, DEM-310GT, DEM-311GT, DEM-312G

292,976 Hours

Dimensions (W x D x H)

Mean Time Between Failures (MTBF)

Operating Humidity



DGS-3620-285

DGS-3620-28TC

	DGS-3620-28PC	DGS-3620-52T	DGS-3620-52P
	20	48	48
	4	10	10
to 12 Units	4	4	4
to 12 Units	130 Char	176 Char	176 Gbps
	128 Gbps	176 Gbps	170 dbps
gabit Ports pe	r Group		
P+ v4*			
are-Dense, DVI	MRP v3*		
Protocol, IPv6	Traffic Class, IPv6 Flow Label, Payload	(User-Defined)	
128 Rules per Protocol, IPv6	Profile Traffic Class, IPv6 Flow Label, Payload	(User-Defined)	
	802.3af (PoE), 802.3at (PoE+)		802.3af (PoE), 802.3at (PoE+)
	24		48 370 W (760 W with
	370 W (760 W with DPS-700 RPS)		DPS-700 RPS)
	502.2 W	76 W	517.1 W
	441 x 310 x 44 mm	441 x 310 x 44 mm	441 x 310 x 44 mm
	236,811 Hours	247,929 Hours	235,645 Hours
12, DEM-314G	ſ		

# 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 densities, 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
- Combo 1000BASE-T/SFP ports x 4
- 10 Gigabit SFP+ ports x 4

### DGS-3420-28SC

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

### DGS-3420-28PC

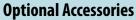
- 10/100/1000BASE-T PoE ports x 20
- Combo 10/100/1000BASE-T PoE/SFP ports x 4
- 10 Gigabit SFP+ ports x 4
- 802.3af (PoE) and
- 802.3at (PoE+) support • 370 W PoE power budget
- (760 W with DPS-700 RPS)

#### 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)



#### Ontional 10 Gbns SEP+ Direct Attach Stacking Cables DEM-CB100S 10 Gigabit SFP+ 1 m Direct Attach Stacking Cable

DEM-CB300S 10 Gigabit SFP+ 3 m Direct Attach Stacking Cable

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





**Key Series Features** 

• Physical stack of up to 12 Units, totalling up to 576 Gigabit ports

• Up to 40 Gbps full-duplex

including Microsoft NAP

 Web-based GUI for easy management

configuration files

• SD Card slot to store and restore

 Green Technology – power-saving mode, time-based PoE, smart fans

 Comprehensive IPv6 support • Multiple functions in a single device: switching, static routing and PoE, thus eliminating the need to purchase multiple routers

Optional external redundant

· Comprehensive security features,

stacking bandwidth

power supply

and switches

MODEL		DGS-3420-28TC	DGS-3420-285C	DGS-3420-28PC	DGS-3420-52T	DGS-3420-52P
	Fast Ethernet					
	Gigabit Ethernet	20		20	48	48
Interfaces	SFP Slots		20			
	Combo 10/100/1000BASE-T/SFP Slots 10 Gigabit SFP+ Slots		4	4	4	4
	Stackability	4 Virtual Stacking of up to 32 Unit	4 ts; Physical Stacking of up to 12 U		4	4
	Stacking Speed	Up to 20 Gbps (40 Gbps full dup				
	Switching Capacity	128 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps
General Features	Forwarding Mode	Store-and-Forward				
	Packet Buffer Memory	2 MB				
	MAC Address Table Flow Control	16,000 802.3x, HOL Blocking Preventio	n			
	MDI/MDIX	Configurable				
	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS				
	803.2ad Link Aggregation	32 Groups, 8 Gb Ports per Group	/ 2 10 Gigabit Ports per Group			
Layer 2 Features	Port Mirroring	One-to-One, Many-to-One, RX/	TX/Both, Flow-Based, RSPAN			
	Loopback Detection	•				
	Cable Diagnostics IP Interfaces	• 256				
	Routing Protocols	Static, Rip v1/v2, RIPng				
	Policy-Based Routing	Based on ACL				
Layer 3 Features	Route Balancing					
	IPv6 Tunneling	Static, ISATAP, 6to4				
	VRRP	•				
	VLANs GVRP	4096 Static; 256 Dynamic				
Virtual LAN (VLAN)	GVRP Protocol VLAN (802.1v)	•				
	Double VLAN (Q-in-Q)	Port-Based / Selective				
Multicacting	Groups	960 (IGMP), 480 (MLD)				
Multicasting	Protocols	IGMP v1/v2/v3, MLD v1, v2 Sno	oping			
	Standard	802.1p, DSCP				
Quality of Service (QoS)	Number of Queues Mode	8 Strict / WRR / Strict+WRR				
Quality of Service (Q0S)	CoS Handling		AC, IP, IPv6, DSCP, Port, Protocol, I	IPv6 Traffic Class, IPv6 Flow Label, Pa	vload (User-Defined)	
	Bandwidth Control	Port-Based, Flow-Based	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	STP Security	BPDU Filtering, Root Restriction	, UDLD			
	Per-Port MAC Limitation	•				
	Static MAC	16 Prodeset / Multicast / Unicast				
Security	Storm Control IP-MAC-Port Binding	Broadcast / Multicast / Unicast 500 Entries				
- clainly	DHCP Spoofing Prevention	•				
	ARP Spoofing Prevention	•				
	Traffic Segmentation	•				
	D-Link SafeGuard Engine	•				
	802.1x Authentication Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynam Port-Based, Host-Based, Dynam				
Authentication,	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynam Port-Based, Host-Based, Dynam				
Authorisation and	Network Access Protection (NAP)	802.1x, NAP, DHCP NAP				
Accounting (AAA)	Guest VLAN	•				
	Switch Access	RADIUS / TACACS+, 3-Level Use				
Annual Constanting of the second	Rules	-	s per Profile; Egress ACL: 4 Profile			
Access Control Lists (ACL)	ACL Handling Time-Based ACL	Ether Type, VLAN ID, 802.1p, MA	ic, ir, ipvo, DSCP, Port, Protocol, IP	Pv6 Traffic Class, IPv6 Flow Label, Pay	ioad (User-Defined)	
	Standard			802.3af (PoE), 802.3at (PoE+)		802.3af (PoE), 802.3at (Po
	PoE Ports			24		48
Power over Ethernet	PoE Power Budget			370W		370 W
	Time-Based PoE			(760 W with DPS-700 RPS)		(760 W with DPS-700 RP
	Switch Access	Web GUI, Telnet, Console				
	sFlow	•				
	SNMP	v1/v2c/v3				
	DHCP	Server, Client, Relay (IPv4, IPv6)				
Management	RMON	•				
Management		•				
Management	TFTP Client					
Management		• Internal				
Management	TFTP Client Syslog		60.2 W	478.0 W	81.0 W	505.4 W
	TFTP Client Syslog Power Supply	Internal	60.2 W	478.0 W	81.0 W	505.4W
Management Physical and Environment	TFTP Client Syslog Power Supply Maximum Power Consumption Power-Saving Technology Operating Temperature	Internal 58.8 W Green Ethernet 0°C to 50°C		478.0 W	81.0 W	505.4W
Physical and	TFTP Client Syslog Power Supply Maximum Power Consumption Power-Saving Technology Operating Temperature Operating Humidity	Internal 58.8 W Green Ethernet 0°C to 50°C 10% to 90% RH Non-Condensir	g			
Physical and	TFTP Client Syslog Power Supply Maximum Power Consumption Power-Saving Technology Operating Temperature	Internal 58.8 W Green Ethernet 0°C to 50°C		478.0 W 441 x 310 x 44 mm 206,190 Hours	81.0W 441 x 310 x 44 mm 255,608 Hours	505.4 W 441 x 310 x 44 mm 202,462 Hours



Х ТАСК



# xStack Layer 2 Gigabit Stackable Managed

### **DGS-3120 Series**

The DGS-3120 Series is an enhanced Layer 2 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 two different software images – Standard Image (SI) and the optional Enhanced Image (EI). The Standard Image provides sophisticated features such as advanced Quality of Service (QoS), traffic shaping, L2 multicasting and robust security features. The Enhanced Image supports ERPS, Double VLAN (Q-in-Q), Ethernet OAM, Static Route, IMPB, sFlow, and IPv6 features which are suitable for the next generation of IPv6 networks or triple-play applications. 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
- Combo 1000BASE-T/SFP ports x 4
- 10 Gigabit CX4 ports x 2

#### DGS-3120-24PC

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

#### **Optional Accessories**

<b>Optional Software Image L</b>	Jpgrade 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-3120-48TP-SE-LIC	DGS-3120-48TP Standard to Enhanced Image Upgrade License
	DGS-3120-24TC-SE-LIC DGS-3120-24SC-SE-LIC DGS-3120-24PC-SE-LIC DGS-3120-48TC-SE-LIC

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

#### DGS-3120-24SC

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

DPS-200

DPS-500

DPS-700

DV-700

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

60 W Redundant Power Supply for DGS-3120-24TC and DGS-3120-24SC

589 W Redundant Power Supply For DGS-3120-24PC and DGS-3120-48PC

140 W Redundant Power Supply for DGS-3120-48TC

D-View 7 Network Management System

• 10 Gigabit CX4 ports x 2

#### DGS-3120-48PC

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

### sFlowSD Card slot for configuration

**Key Series Features** 

uplink ports

single stack

Smart fans

IPv6 ready

• Built-in 10 Gigabit CX4 stacking/

40 Gigabit stacking bandwidth
Stackable up to six physical units
Up to 288 Gigabit ports in a

PoE/PoE+ versions available
Optional redundant power supply

• 19in, 1U rack-mountable

Comprehensive security

Supports Microsoft NAP

- and system images

  Easy to configure through
- web interface
- Power-saving technology



MODEL	5 x 54 x	DGS-3120-24TC	DGS-3120-24PC
	Fast Ethernet Gigabit Ethernet	20	20
iterfaces	SFP Slots		
	Combo Gigabit/SFP Slots 10 Gigabit Slots	4	4
	Stackability	Virtual Stacking of up to 32 Units	; Physical Stacking of u
	Stacking Speed	Up to 20 Gbps (40 Gbps full duple	
	Switching Capacity	88 Gbps	88 Gbps
eral Features	Forwarding Mode Packet Buffer Memory	Store-and-Forward 2 MB	
	MAC Address Table	16,000	
	Flow Control	802.3x, HOL Blocking Prevention	
	MDI/MDIX Loop Protection	Configurable 802.1Q, 802.1w, 802.1s, ERPS*	
		32 Groups	
yer 2 Features	803.2ad Link Aggregation	8 Gb Ports per Group	
yer 2 reactires	Port Mirroring Loopback Detection	<ul> <li>One-to-One, Many-to-One, RX/T2</li> <li>•</li> </ul>	K/Both, RSPAN, Flow-B
	Cable Diagnostics		
	IP Interfaces	16*	
	Routing Protocols	Static*	
yer 3 Features	Policy-Based Routing		
	Route Balancing IPv6 Tunneling		
	VRRP		
	VLANs	4096 Static	
rtual LAN (VLAN)	GVRP	•	
	Protocol VLAN (802.1v) Double VLAN (Q-in-Q)	•	
	Groups	1000	
lulticasting	Protocols	IGMP v1 / v2 / v3, MLD v1, v2 Sno	ooping
Quality of Service (QoS)	Standard	802.1p, DSCP	
	Number of Queues Mode	4 Strict / WRR	
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Pr	
	Bandwidth Control	Port-Based, Flow-Based	
	STP Security	BPDU Filtering, Root Restriction	
	Per-Port MAC Limitation Static MAC	• 64	
	Storm Control	Broadcast / Multicast / Unicast	
urity	IP-MAC-Port Binding	510 Entries*	
	DHCP Spoofing Prevention	•*	
	ARP Spoofing Prevention Traffic Segmentation	•	
	D-Link SafeGuard Engine	•	
	802.1x Authentication	Port-Based, Host Based, Dynamic	-
uthentication,	Web-Based Access Control (WAC)	Port-Based, Host Based, Dynamic	
uthorisation and	MAC-Based Access Control (MAC) Network Access Protection (NAP)	Port-Based, Host Based, Dynamic 801.1X NAP, DHCP NAP	VLAN/ACL/QoS Assign
ccounting (AAA)	Guest VLAN	•	
	Switch Access	RADIUS / TACACS+, 4-Level User	Account
	Rules	1500	
ccess Control Lists (ACL)	ACL Handling Time-Based ACL	Ether Type, VLAN ID, 802.1p, MAC	, IP, IPV6, DSCP, Port, Pr
	Standard		802.3af (PoE), 802.3at
	PoE Ports		20
	TOLIDIO		370 W
wer over Ethernet	PoE Power Budget		(760 W with DDC 700
wer over Ethernet			(760 W with DPS-700
ower over Ethernet	PoE Power Budget	Web GUI, Telnet, Console	(760 W with DPS-700 •
wer over Ethernet	PoE Power Budget Time-Based PoE Switch Access sFlow	•*	(760 W with DPS-700 •
	PoE Power Budget Time-Based PoE Switch Access sFlow SNMP	•* v1/v2c/v3	(760 W with DPS-700
	PoE Power Budget Time-Based PoE Switch Access sFlow SNMP DHCP	•*	(760 W with DPS-700
	PoE Power Budget Time-Based PoE Switch Access sFlow SNMP	•* v1/v2c/v3	(760 W with DPS-700
	PoE Power Budget Time-Based PoE Switch Access SFlow SNMP DHCP RMON TFTP Client Syslog	•* v1 / v2c / v3 Client, Relay • (IPv4, IPv6*)	(760 W with DPS-700
	PoE Power Budget Time-Based PoE Switch Access SFlow SNMP DHCP RMON TFTP Client Syslog Power Supply	•* v1 / v2c / v3 Client, Relay • (IPv4, IPv6*) • Internal	
	PoE Power Budget Time-Based PoE Switch Access SFlow SNMP DHCP RMON TFTP Client Syslog Power Supply Maximum Power Consumption	•* v1 / v2c / v3 Client, Relay • (IPv4, IPv6*) • Internal 40.5 W	(760 W with DPS-700 • 482.7 W
anagement nysical and	PoE Power Budget Time-Based PoE Switch Access SFlow SNMP DHCP RMON TFTP Client Syslog Power Supply	•* v1 / v2c / v3 Client, Relay • (IPv4, IPv6*) • Internal	
lanagement hysical and	PoE Power Budget Time-Based PoE Switch Access SFlow SNMP DHCP RMON TFTP Client Syslog Power Supply Maximum Power Consumption Power-Saving Technology Operating Temperature Operating Humidity	•* v1 / v2c / v3 Client, Relay • (IPv4, IPv6*) • Internal 40.5 W Green Ethernet 0°C to 50°C 10% to 90% RH Non-Condensing	- 482.7 W
ower over Ethernet Aanagement hysical and nvironment	PoE Power Budget Time-Based PoE Switch Access SFlow SNMP DHCP RMON TFTP Client Syslog Power Supply Maximum Power Consumption Power-Saving Technology Operating Temperature Operating Humidity Dimensions (W x D x H)	•* v1 / v2c / v3 Client, Relay • (IPv4, IPv6*) • Internal 40.5 W Green Ethernet 0°C to 50°C 10% to 90% RH Non-Condensing 440 x 210 x 44 mm	• 482.7 W 440 x 310 x 44 mm
lanagement hysical and	PoE Power Budget Time-Based PoE Switch Access SFlow SNMP DHCP RMON TFTP Client Syslog Power Supply Maximum Power Consumption Power-Saving Technology Operating Temperature Operating Humidity	•* v1 / v2c / v3 Client, Relay • (IPv4, IPv6*) • Internal 40.5 W Green Ethernet 0°C to 50°C 10% to 90% RH Non-Condensing 440 x 210 x 44 mm	• 482.7 W 440 x 310 x 44 mm 282,541 Hours



-			
	DGS-3120-245C	DGS-3120-48TC	DGS-3120-48PC
		44	44
	16 8	4	4
ıp to 6 Units			
p to 0 01110		126 Char	126 Char
	88 Gbps	136 Gbps	136 Gbps
ased			
rotocol, Pay	load (User-Defined)		
ment			
ment ment	oad (User-Defined)		
ment ment otocol, Paylo	oad (User-Defined)		907 3-5f (D <sub>0</sub> E1, 907 3-4 /D <sub>2</sub> E , 1
ment ment	oad (User-Defined)		802.3af (PoE), 802.3at (PoE+) 44
ment ment otocol, Paylo (PoE+)	oad (User-Defined)		44 370 W (760 W with DPS-700 RPS)
ment ment otocol, Paylo (PoE+)	pad (User-Defined)		44 370 W
ment ment otocol, Paylo (PoE+)	oad (User-Defined)		44 370 W (760 W with DPS-700 RPS)
ment ment otocol, Paylo (PoE+)	pad (User-Defined)		44 370 W (760 W with DPS-700 RPS)
ment ment otocol, Paylo (PoE+)	pad (User-Defined)		44 370 W (760 W with DPS-700 RPS)
ment ment otocol, Paylo (PoE+)	pad (User-Defined)		44 370 W (760 W with DPS-700 RPS)
ment ment otocol, Paylo (PoE+)	pad (User-Defined)	67.1W	44 370 W (760 W with DPS-700 RPS)
ment ment otocol, Paylo (PoE+)		67.1 W	44 370 W (760 W with DPS-700 RPS) •
ment ment otocol, Paylo		67.1 W 440 x 310 x 44 mm	44 370 W (760 W with DPS-700 RPS) •

# Layer 2 Gigabit Managed Switch

### **DGS-3000 Series**

The DGS-3000-10TC is a Layer 2 managed switch that provides wired Gigabit speed access – perfect for metro and campus networks – and since it's designed as a 1U rack-mount case and comes with IPV6 support, it's suitable for enterprise access or service provider telecom cabinets. The DGS-3000-10TC maximises network performance without compromising on reliability and security, and Green Technology decreases energy costs by reducing power consumption, again without compromising on performance.



#### **Principle Product Features**

#### DGS-3000-10TC

- 10/100/1000BASE-T ports x 8
- Combo 10/100/1000BASE-T/SFP ports x 2
- Desktop, or 1U rack-mountable
- Smart fan

#### **Optional Accessories**

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

#### 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 (which is 44mm) and that it can thus be mounted into a standard comms rack. Many of D-Link's switches that are narrower than 19in are supplied with brackets so they can still be rack-mounted if desired.

#### **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
- Jumbo frames up to 12 KB
- BPDU filtering
- Root restriction
- Loopback Detection (LBD)
- Link aggregation
- Port mirroring
- 8 queues per port
- DSCP
- 802.1p
- Bandwidth control
- Queue handling
- Time-based QoS





MODEL		DGS-3000-10TC
	Fast Ethernet	
	Gigabit Ethernet	8
Interfaces	SFP Slots	
	Combo Gigabit/SFP Slots	2
	10 Gigabit Slots	
	Stackability	Virtual Stacking of up to 32 Units
	Stacking Speed (per Port)	
	Switching Capacity	20 Gbps
	Forwarding Mode	Store-and-Forward
General Features	Packet Buffer Memory	1.5 MB
	MAC Address Table	16,000
	Flow Control	IEEE 802.3x Flow Control, HOL Blocking Preventio
	MDI/MDIX	Configurable
	Loop Protection	802.10, 802.1w, 802.1s, ERPS
	803.2ad Link Aggregation	802.3ad 802.1AX
Layer 2 Features	Port Mirroring	One-to-One, Many-to-One, Flow-based (ACL) Mi
	Loopback Detection	•
	Cable Diagnostics	
	VLANs	4096 Static
	GVRP	•
Virtual LAN (VLAN)	Protocol VLAN (802.1v)	
	Double VLAN (Q-in-Q)	
	Groups	1000
Multicasting	Protocols	IGMP v1/v2 snooping, v3 awareness, MLD v1, v2
	Standard	DSCP, 802.1p
	No. of Queues	8
		Strict Priority Queue (SPQ), Weighted Round Rob
Quality of Service (QoS)	Mode CoS Handling	Deficit Round Robin (DRR), SPQ + WRR 802.1p Priority Queues, VLAN ID, MAC Address, E IPv4/v6 Address, IPv6 Traffic Class, IPv6 Flow Lab
	Bandwidth Control	Protocol Type, TCP/UDP Port, User-Defined Packe Port-Based, Host-Based
	STP Security	BPDU Filtering, Root Restriction
	Per-Port MAC Limitation	Dr Do Fillelling, noot nestriction
	Static MAC	
	Storm Control	
Convitu		•
Security	IP-MAC-Port Binding	•
	DHCP Server Screening	•
	ARP Spoofing Prevention	•
	Traffic Segmentation	•
	D-Link SafeGuard Engine Switch Access	•
	sFlow	• Web CIII Talant Canada
		Web GUI, Telnet, Console
	SNMP	•
Management	RMON	•
		•
	TFTP Client	•
	Syslog	
	Power Supply	230V AC internal with 12V DC RPS option
	Maximum Power Consumption	16.5 W
	Power-Saving Technology	•
Physical and Environment	No of Fans	1
Lavironnient	Operating Temperature	0°C to 50°C
	Operating Humidity	10% to 90% RH Non-Condensing
	Dimensions (W x D x H)	228.5 x 195 x 44 mm
	Mean Time Between Failures (MTBF)	711,565 Hours
Modules/Transceivers	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314 DEM-211



.) Mirroring

, v2 awareness

Robin (WRR),

ss, Ether Type, Label, DSCP, acket Content

-314GT, DEM-210,

# xStack Layer 2 Fast Ethernet Managed Switches

### **DES-3200 Series**

A member of D-Link's Layer 2 managed switch family, the DES-3200 Series is designed for the ETTX, FTTX and enterprise markets. These switches provide 8, 16, 24 or 48 10/100 Mbps Fast Ethernet connections and various SFP or combo Gigabit/SFP port uplink options. The compact DES-3200-10 and DES-3200-18 incorporate a fanless design so are suitable for desktop, telecom cabinet or distribution box deployment, while the DES-3200-28 and DES-3200-52 models (and their PoE counterparts) are standard 1U rack-mount size and provide 24 or 48 copper connections on Fast Ethernet; beneficially, their design also includes 2 or 4 Gigabit/SFP Combo ports which provide up to 4 Gbps uplink bandwidth or dual Ethernet ring topology support. The DES-3200-28P/52P are Power over Ethernet (PoE) compliant and provide 15.4 W per port and up to 30 W in the first four or eight ports (according to model), so are perfect for powering and networking devices such as video IP phones, wireless access points and IP cameras.



#### **Principle Product Features**

#### **DES-3200-10**

- 10/100BASE-TX ports x 8
- Combo 1000BASE-T/SFP port x 1
- SFP port x 1
- Fanless
- 9in, 1U desktop

#### **DES-3200-18**

- 10/100BASE-TX ports x 16
- Combo 1000BASE-T/SFP port x 1
- SFP port x 1
- Fanless
- 11in, 1U desktop

#### DES-3200-28 • 10/100BASE-TX ports x 24

- Combo 1000BASE-T/SFP ports x 2 • 10/100/1000 BASE-T ports x2
- Fanless
- 19in, 1U rack-mountable

#### **DES-3200-28P**

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

#### Smart fan

• 19in, 1U rack-mountable

#### DES-3200-52

- 10/100BASE-TX ports x 48
- Combo 1000BASE-T/SFP ports x 2
- 10/100/1000BASE-T ports x 2
- Smart fan
- 19in, 1U rack-mountable

#### DES-3200-52P

- 10/100BASE-TX PoE ports x 48
- Combo 1000BASE-T/SFP ports x 2
- SFP ports x 2 • 802.3af (PoE) and
- 802.3at (PoE+) support
- 370 W PoE power budget
- Smart fan
- 19in, 1U rack-mountable

### **Key Series Features**

- D-Link single IP management (virtual stacking)
- Internet Group Management Protocol (IGMP) snooping
- Multicast Listener Discovery (MLD) snooping
- Ethernet Ring Protection Switching (ERPS)
- Gratuitous Address Resolution Protocol (ARP)
- 802.3ah Ethernet link OAM
- 802.1v protocol VLAN VLAN trunking
- Asymmetric VLAN
- Double VLAN (Q-in-Q)
- Selective 0-in-0
- IGMP snooping multicast (ISM)
- VLAN • Quality of Service (QoS)
- Access Control List (ACL)
- CPU interface filtering
- 802.1ag Connectivity Fault
- Management (CFM) Broadcast/multicast/unicast
- storm control
- Traffic segmentation
- D-Link SafeGuard Engine
- IP-MAC-Port Binding (IMPB)
- ARP spoofing prevention
- BPDU attack protection
- DHCP server screening
- 802.1X port-based access control
- 802.1X host-based access control
- Per-queue bandwidth control

MODEL		DES-3200-10	DES-3200-18
	Fast Ethernet	8	16
	Gigabit Ethernet		
Interfaces	SFP Slots	1	1
	Combo Gigabit/SFP Slots	1	1
	10 Gigabit Slots		
	Stackability	Virtual stacking of up to 32	2 units
	Stacking Speed (per Port)		
	Switching Capacity	5.6 Gbps	7.2 Gbps
General Features	Forwarding Mode	Store-and-Forward	
	Packet Buffer Memory	1.5 MB	
	MAC Address Table Flow Control	16,000 802.3x, HOL Blocking Preve	ontion
	MDI/MDIX		enuon
	Loop Protection	Configurable 802.1Q, 802.1w, 802.1s, EF	DDC
		5 Groups	9 Groups
	803.2ad Link Aggregation	8 Ports per Group	8 Ports per Group
Layer 2 Features	Port Mirroring	One-to-One, Many-to-One	e, RX/TX/Both, Flow-Based
	Loopback Detection	•	
	Cable Diagnostics	•	
	VLANs	4096 Static; 256 Dynamic	
Virtual LAN (VLAN)	GVRP		
	Protocol VLAN (802.1v)	•	
	Double VLAN (Q-in-Q)	•	
Multicasting	Groups	1000	
<b>,</b>	Protocols	IGMP v1 / v2 / v3, MLD v1,	v2 Snooping
	Standard	802.1p, DSCP	
	Number of Queues	8	
Quality of Service (QoS)	Mode	Strict / WRR	
	CoS Handling Bandwidth Control		1p, MAC, IP, IPv6, DSCP, Port
	STP Security	Port-Based, Flow-Based BPDU Filtering, Root Restri	iction UDID
	Per-Port MAC Limitation	•	וכנוסוו, סטבט
	Static MAC	• 64	
	Storm Control	Broadcast / Multicast / Uni	icast
Security	IP-MAC-Port Binding	500 Entries	i cust
	DHCP Spoofing Prevention	•	
	ARP Spoofing Prevention		
	Traffic Segmentation		
	D-Link SafeGuard Engine		
	802.1x Authentication	Port-Based, Host-Based, D	ynamic VLAN Assignment
Anthone instantion	Web-Based Access Control (WAC)	Port-Based, Host-Based	
Authentication, Authorisation and	MAC-Based Access Control (MAC)	Port-Based, Host-Based, D	ynamic VLAN Assignment
Accounting (AAA)	Network Access Protection (NAP)	802.1x NAP, DHCP NAP	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Guest VLAN	•	
	Switch Access	RADIUS / TACACS+, 3-Leve	l User Account
	Rules	512	
Access Control Lists (ACL)	ACL Handling	Ether Type, VLAN ID, 802.1	p, MAC, IP, IPv6, DSCP, Port,
	Time-Based ACL	•	
	Switch Access	Web GUI, Telnet, Console	
	sFlow SNMP	v1/v2c/v3	
Management	DHCP	Client, Relay (IPv4, IPv6)	
management	RMON	•	
	TFTP Client		
	Syslog	•	
	Power Supply	• Internal	
	Maximum Power Consumption	13.54 W	15.44 W
	Power-Saving Technology		
Physical and	Operating Temperature	-5°C to 50°C	
Environment	Operating Humidity	10%-90% RH Non-Conden	ising
	Dimensions (W x D x H)	228.5 x 195 x 44 mm	280.5 x 180 x 44 mm
	Mean Time Between Failures (MTBF)	873,750 Hours	743,115 Hours
Modules/ Transceivers	SFP Transceivers		310GT, DEM-311GT, DEM-3







**Optional Accessories** 





				25
	a first time in an a	- HE HE HAL		
	DES-3200-28	DES-3200-28P	DES-3200-52	DES-3200-52P
	24		48	
	2	2	2	2
	2	2	2	2
	12.8 Gbps		17.6 Gbps	
	14 Groups 8 Ports per Group		26 Groups 8 Ports per Group	
ł				
		n		
rt, Pr	otocol, Payload (User-Defined	1)		
t, Pro	tocol, Payload (User-Defined)	)		
	20.83 W	250.78W	33.38W	417.6W
	441 x 210 x 44 mm	441 x 308 x 44 mm	440 704 1	100 200 1
3120	668,867 Hours GT2, DEM-314GT	216,780 Hours	440,704 Hours	189,396 Hours

# 10 Gigabit Ethernet Smart Managed Switch

### **DXS-1210 Series**

D-Link's DXS-1210 Series 10 Gigabit Ethernet Smart Managed 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-1210-10TS/12TC can fulfil the needs for virtualisation, cloud services and serverto-server applications making it perfect for SMB customers. The DXS-1210-10TS has 8 10GBASE-T ports and 2 SFP+ ports while the DXS-1210-12TC has an additional 2 10GBASE-T/ SFP+ combo port design. This means 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-1210-10TS/12TC includes port mirroring, Spanning Tree Protocol and Link Aggregation Control Protocol (LACP). Wired speed inter-VLAN routing helps by reducing the pressure of routers and backbone networks, improving the overall network efficiency



#### **Principle Product Features**

#### DXS-1210-10TS

- 10GBASE-T ports x 8
- 10 Gigabit SFP+ ports x 2
- Switching capacity of up to 200 Gbps

#### **Key Series Features**

- 10 Gigabit Ethernet over standard CAT6 twisted-pair cables
- Layer 3 lite functions
- 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
- Clientless MAC/Web access control
- D-Link Safeguard Engine
- Port Security
- ARP Spoofing Prevention • D-Link Network Assistant Utility or
- Web-based GUI
- CLI through Telnet
- Auto Surveillance VLAN<sup>1</sup> Loopback Detection
- Cable Diagnostics
- Static Route
- LLDP/LLDP-MED
- Auto Voice VLAN

DXS-1210-10TC

- 10GBASE-T ports x 8
- 10 Gigabit SFP+ ports x 2
- 10GBASE-T/SFP+ combo ports x 2
- Switching capacity of up to 240 Gbps

#### **Optional Products**

onal 10 Gbps SFP+ Direct Attach Stacking Cables 10 Gigabit SFP+1 m Direct Attach Stacking Cable DEM-CB100S 10 Gigabit SFP+ 3 m Direct Attach Stacking Cable DEM-CB300S

DV-700 D-View 7 Network Management System

# 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 addeing 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
	10GBASE-T	8
Interfaces	10 Gigabit Ethernet SFP+	2
	10GBASE-T/SFP+ Combo	
	Stackability	
	Stacking Speed (per Port)	
6	Switching Capacity	200 Gbps
General Features	Forwarding Mode	148.8 Mpps
reatures	Packet Buffer Memory	2 MB
	MAC Address Table	16,000
	Flow Control	802.3x, HOL Blocking Prevention
	803.2ad Link Aggregation	Max 8 Groups per Device , 8 Ports per Group
Layer 2 Features	Port Mirroring	One-to-One, Many-to-One, Mirrioring for Tx/Rx/Both
	Jumbo Frame	Up to 9,000 Bytes
	ARP	768 Static ARP
	IP Interface	Supports 16 interfaces
Layer 3 Features	Default Routing	•
	Static Routing	Max. 32 IPv4 entries, 32 IPv6 entries
	VLANs	Up to 4096 Static
	GVRP <sup>1</sup>	Up to 4096 Dynamic
	Subnet-based VLAN	op to 4000 bynamic
Virtual LAN (VLAN)	Double VLAN (Q-in-Q)	
VII LUAI LAN (VLAN)	Port-based VLAN	
	MAC-based VLAN	•
	VLAN Group	Max 4K Static VLAN Groups, Max 4094 VIDs
Multicasting	Groups	384
-	Protocols	IGMP v1 / v2 / v3 snooping, MLD v1 / v2 snooping
	Standard	802.1p
	No. of Queues	8 per port
Quality of Service (QoS)	Mode	Strict, WRR, DRR, WDRR
	CoS Handling	802.1p Priority Queues, DSCP, ToS, IPv6 Traffic Class, TCP/UD
	Bandwidth Control	Port-based (Ingress/Egress, min. granularity 64 Kbps) iSCSI Awareness <sup>1</sup>
	STP Security	
	Per-Port MAC Limitation	Up to 6656 Addresses per Port/System
	Static MAC	
	Storm Control	Broadcast / Multicast / Unicast
Security	IP-MAC-Port Binding	DHCP Snooping <sup>1</sup> , IP Source Guard <sup>1</sup> , Dynamic ARP Inspection <sup>1</sup> , Advertisement (RA) Guard <sup>1</sup>
	DHCP Server Screening	•
	ARP Spoofing Prevention	Max 127 Entries
	Traffic Segmentation	
	D-Link SafeGuard Engine	
Authentication, Authorisation and	802.1x Authentication <sup>1</sup>	Support Dynamic VLAN Assignment, Identity-driven Policy access control, supports Host-based access control, support
Accounting (AAA)	Access Control	Web-based Access Control (WAC) <sup>1</sup> , MAC-based Access Contro
<b>,</b> ,	Guest VLAN <sup>1</sup>	•
	Rules	Max 50 access list, 256 rules
Access Control Lists (ACL)	ACL Handling	802.1p priority, VLAN <sup>1</sup> , MAC address, Ether type, IP address,
	Web-based GUI	
	Command Line Interface (CLI)	
	Telnet, TFTP Client	•
	SNMP	•
Management	SSH	•
	RMON	
	RADIUS/TACACS+	
	LLDP/LLDP-MED	•
	Power Supply	Internal
	Maximum Power Consumption	68.67 W
	Number of Fans	2
Physical and	Operating Temperature	-5°C to 50°C
Environment	Operating Humidity	0% to 95% RH Non-Condensing
	Dimensions (W x D x H)	440 x 210 x 44 mm
	Mean Time Between Failures (MTBF)	284,314 Hours
Madulas / Transmission	10 Gigabit SFP+ Modules	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD
Modules / Transceivers	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT

DXS-1210 -12TC	
8	
2	
2	
240 (h	
240 Gbps	
178.56 Mpps	

----

: Class, TCP/UDP port, VLAN ID, MAC Address, Ether Type, IP Address, Protocol Type, IPv6 Flow Label 64 Kbps)

RP Inspection<sup>1</sup>, IPv6 Snooping<sup>1</sup>, IPv6 Source Guard<sup>1</sup>, DHCPv6 Guard<sup>1</sup>, IPv6 ND Inspection<sup>1</sup>, IPv6 Route

-driven Policy (VLAN/ACL/QoS) Assignment, supports local/RADIUS database, supports Port-based ontrol, supports EAP, OTP, TLS, TTLS, PEAP d Access Control (MAC)<sup>1</sup>

/pe, IP address, DSCP, Protocol type, TCP/UDP port number, IPv6 Traffic Class, IPv6 flow label

90.81 W

217,863 Hours

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

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



#### **Principle Product Features**

#### DGS-1510-20

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

#### DGS-1510-28

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

### DGS-1510-28P

- 10/100/1000BASE-T PoE ports x 24
- SFP ports x 2
- 10 Gigabit SFP+ ports x 2
  802.3af (PoE) and 802.3at (PoE+)
- support

  193 W PoE power budget
- Smart fans

Smart fan

#### DGS-1510-28X

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

#### **Optional Accessories**

 Optional 10 Gbps SFP+ Direct Attach Stacking Cables

 DEM-CB100S
 10 Gigabit SFP+ 1 m Direct Attach Stacking Cable

 DEM-CB300S
 10 Gigabit SFP+ 3 m Direct Attach Stacking Cable

 Optional Management Software

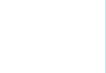
 DV-700
 D-View 7 Network Management System

#### • DGS-1510-52

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

#### • DGS-1510-52X

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



#### Energy Efficient Ethernet

**Key Series Features** 

• 10 Gigabit connectivity

for up to six devices

Static routing

Auto voice VLAN

 Physical stacking via two 10 Gigabit ports, with stacking

• Single IP management (virtual

stacking of up to 32 units)

IPv6 management support

Auto surveillance VLAN

Loopback Detection (LBD)
 Configurable MDI/MDIX
 LLDP/LLDP-MED
 Access Control List (ACL)

D-Link SafeGuard Engine

ARP spoofing prevention

• IP-MAC-port binding

 DoS attack prevention
 D-Link Network Assistant Utility or multi-language web-based GUI
 Built-in SNMP MIB for remote

NMS (D-View 7)

Full CLI via console port
IPv4/IPv6 stack

• IEEE 802.3az Energy Efficient

• D-Link Green<sup>™</sup> 3.0 power-saving

• Dual image

Ethernet

features

Port security





MODEL		DGS-1510-20	DGS-1510-28
	Fast Ethernet		
	Gigabit Ethernet	16	24
Interfaces	SFP Slots	2	2
	Combo Gigabit/SFP Slots		
	10 Gigabit SFP + Slots	2	2
	Stackability	Virtual Stacking of up to 3 20 Gbps (Full Duplex)	2 units; Physical Stacking o
	Stacking Speed (per Port) Switching Capacity	76 Gbps	92 Gbps
	Forwarding Mode	Store-and-Forward	52 GDP5
General Features	Packet Buffer Memory	1.5 MB	
	MAC Address Table	16,000	
	Flow Control	802.3x, HOL Blocking Prev	ention
	MDI/MDIX	Configurable	
	Loop Protection	802.1D, 802.1w, 802.1s	_
Layer 2 Features	803.2ad Link Aggregation Port Mirroring	32 Groups, 8 Ports per Gro One-to-One, Many-to-One	
Luyer 2 reatures	Loopback Detection	•	, 10, 17, 0011
	Cable Diagnostics	•	
	IP Interfaces	8	
	Routing Protocols	Static	
Layer 3 Features	Policy-Based Routing		
,	Route Balancing		
	IPv6 Tunneling VRRP		
	VLANs	4096 Static	
	GVRP	•	
Virtual LAN (VLAN)	Protocol VLAN (802.1v)		
	Double VLAN (Q-in-Q)		
Multicasting	Groups	512	
muticasting	Protocols	IGMP v1/v2	
	Standard	802.1p, DSCP	
Quality of Comise (QoC)	Number of Queues Mode	4 Strict Driority Quoue (SDO)	Weighted Pound Pohin ()
Quality of Service (QoS)	CoS Handling	Strict Priority Queue (SPQ) 802.1p, DSCP	, weighted Round Robin (
	Bandwidth Control	Port-Based	
	STP Security		
	Per-Port MAC Limitation	•	
	Static MAC	128	
	Storm Control	Broadcast / Multicast / Uni	cast
Security	IP-MAC-Port Binding	512 Entries	
	DHCP Spoofing Prevention ARP Spoofing Prevention	•	
	Traffic Segmentation		
	D-Link SafeGuard Engine	•	
	802.1x Authentication	Port-Based	
Authentication,	Web-Based Access Control (WAC)		
Authorisation and	MAC-Based Access Control (MAC)		
Accounting (AAA)	Network Access Protection (NAP)		
	Guest VLAN Switch Access	User Account	
	Rules	768	
Access Control Lists (ACL)	ACL Handling	MAC, IP, 802.1p, DSCP/IPV	5 Address
	Time-Based ACL		
	Standard		
Power over Ethernet	PoE Ports		
rower over cthemet	PoE Power Budget		
	Time-Based PoE		
	Switch Access	Web GUI, Telnet, Console	
	sFlow		
	SNMP	v1/v2c/v3	
Management	DHCP RMON		
	TFTP Client	•	
	Syslog		
	Power Supply	Internal	
	Maximum Power Consumption	20.3 W	24 W
Physical and			
Environment	Power-Saving Technology Operating Temperature	IEEE 802.3az EEE, Green Et -5°C to 50°C	nennet
	Operating Humidity	0% to 95% RH Non-Conde	nsing
	Dimensions (W x D x H)	280 x 180 x 44 mm	440 x 210 x 44 mm

Modules/ Transceivers

10 Gigabit SFP+ Transceivers

DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432X DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT

Secure 1000000000000000000000000000000000000					E
24         24         48         48           2         4         2         4           2         4         2         4           50 unts         128 Gbps         140 Gbps         176 Gbps           92 Gbps         128 Gbps         140 Gbps         176 Gbps           3M8         3M8         3         176 Gbps           WRN, Deficit Round Robin (DRR)         -         -         -           802347 (PbE), 802.34t (PbE+1)         -         -         -           802347 (PbE), 802.34t (PbE off)         -         -         -           223.7 W (PbE off)         22.3 W         38.4W         44.2 W	h				
2         4         2         4           2         4         2         4           92 dbps         128 dbps         140 dbps         176 dbps           92 dbps         128 dbps         140 dbps         176 dbps		DGS-1510-28P	DGS-1510-28X	DGS-1510-52	DGS-1510-52X
2         4         2         4           of up to 6 units         128 Gbps         140 Gbps         176 Gbps         176 Gbps           92 Gbps         128 Gbps         140 Gbps         3M8         18			24		48
92 Gbps         128 Gbps         140 Gbps         176 Gbps           3 M8         3 M8         3 M8         3 M8			4		4
3 MB         WRR), Deficit Round Robin (DRR)         R0.3af (Pob), 802.3at (PoE+1) 24         139 W         238.7 W (PoE on) 29W (PoE off)         228.7 W (PoE on) 29W (PoE off)         22.3 W         38.4 W         440 x 250 x 44 mm         440 x 210 x 44 mm         440 x 210 x 44 mm	of up			-	
WRR), Deficit Round Robin (DRR)         802.3af (PeB, 802.3at (PeF+)         24         193 W         .         238.7 W (PeE on)         228.7 W (PeE on)         223.8 / W (PeE on)         240 x 250 x 44 mm         440 x 250 x 44 mm         440 x 250 x 44 mm		92 Gbps	128 Gbps	140 Gbps	176 Gbps
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm				3 MB	
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
802.3af (PoE), 802.3at (PoE+) 24 193 W • 238.7 W (PoE on) 29W (PoE off) 22.3 W 38.4 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W	WRR	), Deficit Round Robin (DRR)			
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
(PoE+)       24         193 W       .         .       .         238.7 W (PoE on)       22.3 W         29 W (PoE off)       22.3 W         38.4 W       44.2 W					
193 W 238.7 W (PoE on) 29 W (PoE off) 22.3 W 38.4 W 44.2 W 44.2 W 440 x 250 x 44 mm 440 x 250 x 44 mm		(PoE+)			
238.7 W (PoE on) 29 W (PoE off) 22.3 W 38.4 W 44.2 W 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm 440 x 250 x 44 mm					
29 W (PoE off) 22.5 W 30.4 W 44.2 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm		•			
29 W (PoE off) 22.5 W 30.4 W 44.2 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm					
29 W (PoE off) 22.5 W 30.4 W 44.2 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm					
29 W (PoE off) 22.5 W 30.4 W 44.2 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm					
29 W (PoE off) 22.5 W 30.4 W 44.2 W 440 x 250 x 44 mm 440 x 210 x 44 mm 440 x 210 x 44 mm 440 x 250 x 44 mm		238 7 W /DoE on)			
		230.7 W (POE OFF) 29 W (PoE off)	22.3 W	38.4W	44.2 W
(1-00			440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 250 x 44 mm
	T-DE	)			

# Gigabit Smart+ Switches with Fibre Uplinks

### **DGS-1210 Series**

The DGS-1210 Smart+ Switches are the latest generation to feature D-Link's Green 3.0 Technology, which offers a high level of energy saving and efficiency as they also comply with the IEEE 802.3az Energy Efficient Ethernet standard. By offering multiple management options, the Smart+ 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 the upgrade from IPv4 to IPv6. Built for small- and medium-sized businesses, the DGS-1210 Series Gigabit Smart+ Switches provide functionality, security, and manageability for a fraction of the standard cost of ownership.



#### Three switches in the DGS-1210 range offer high-power-budget PoE for businesses looking to power VoIP phones, wireless access points or network cameras. The 8-port DGS-1210-10P offers up to 30 W on any of its eight ports, whereas the Smart PoE+ DGS-1210-28P and DGS-1210-52P provide 24 or 48 PoE-enabled ports, a power budget of 193 W, and four or eight ports supporting up to 30 W each at the PoE+ standard. The design allows plenty of flexibility in power allocation for a variety of powered devices but still offers affordable installation costs.

#### **Key Series Features**

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



R6



### DGS-1210-10

- 10/100/1000BASE-T ports x 8
- SFP ports x 2
- Fanless
- 11in, 1U desktop

#### **DGS-1210-10P**

- 10/100/1000BASE-T PoE ports x 8
- Combo 10/100/1000BASE-T/SFP ports x 2
- 802.3af (PoE) and 802.3at (PoE+) support
- 78 W PoE power budget
- Fanless
- 11in, 1U Desktop

### DGS-1210-20

- 10/100/1000BASE-T ports x 16
- SFP ports x 4
- Fanless 11in, 1U rack-mountable

#### DGS-1210-28

- 10/100/1000BASE-T ports x 24 • SFP ports x 4
- Fanless • 19in, 1U rack-mountable

#### DGS-1210-28P • 10/100/1000BASE-T PoE ports x 24

- SFP ports x 4
- 802.3af (PoE) and 802.3at (PoE+) support
- 185 W PoE power budget
  - Smart fans
  - 19in, 1U rack-mountable

#### DGS-1210-52

- 10/100/1000BASE-T ports x 48
- SFP ports x 4
- Smart fans
- 19in, 1U rack-mountable
- Smart fans

----MODEL DGS-1210-10 DGS-1210-10P DGS-1210-20 Fast Ethernet Gigabit Ethernet Combo Gigabit/SFP Slots SEP Slots Stackability Stacking Speed (per Port) 20 Gbps 20 Gbps 40 Gbps Switching Capacity Forwarding Mode Store-and-Forward Packet Buffer Memory 1 MB per Device MAC Address Table 16.000 Flow Control 802.3x, HOL Blocking Preventio MDI/MDIX Configurable Loop Protection 802.10, 802.1w Max. 10 Groups Max, 5 Groups 803.2ad Link Aggregation per Device/ Layer 2 8 Ports per Group 8 Ports per Group Features Port Mirroring One-to-One, Many-to-One, RX/TX/Both Loopback Detection Cable Diagnostics VI ANS 4096 Statio GVRP Protocol VI AN (802 1v) Virtual LAN Double VLAN (Q-in-Q) (VLAN) Auto Voice VI AN • Auto Surveillance VLAN . 256 Groups ulticasting IGMP v1, v2 Protocols Standard 802.1p. DSC Number of Oueue 4 Quality of Strict / WRR Mode Service (QoS CoS Handling 802.1p, DSCP **Bandwidth** Control Port-Based STP Security Per-Port MAC Limitation . Static MAC 64 Broadcast / Multicast / Unicast Storm Control **IP-MAC-Port Binding** DHCP Server Screening . ARP Spoofing Prevention Traffic Segmentation • D-Link SafeGuard Engine 802 1x Authentication Port-Raser Web-Based Access Contol (WAC) MAC-Based Access Contol (MAC) Network Access Protection (NAP) ησ (ΔΔΔ) Guest VLAN Switch Access Rules 768 Access Control Mac-Based ACL VLAN ID, 802.1p, MAC, IP, DSCP, Port Lists (ACL) Time-Based ACI 802 3af (PoF Standard 802 3at (PoF+ Power over PoE Ports rnet PoE Power Budge 78 W Time-Based PoE Switch Access Web GUI, Telnet sFlow SNMP v1/v2c/v3 DHCP Client RMON **TFTP** Client • Svsloa • Power Supply Interna 103.4 W (PoE on) Maximum Power Consumption 13.59W 16 09 W 17.9 W (PoE off) Power-Saving Technology Link Status, Cable Length Detection, LED or Port Shutoff, Port Stand Physical and Number of Fans 0 0°C to 40°C Operating Temperature 0% to 95% RH Non-Condensing Operating Humidity

Dimensions (W x D x H)

SFP Transceiver

280.5 x 180 x 44 mm 330 x 180 x 44 mm 440 x 140 x 44 mm

DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT

#### **Optional Accessories**

DV-700 D-View 7 Network Management System

- DGS-1210-52P • 10/100/1000BASE-T PoE ports x 24
- 10/100/1000BASE-T ports x 24

- SFP ports x 4
- 193 W PoE power budget
- Smart fans
- 19in, 1U rack-mountable
- 10/100/1000BASE-T PoE ports x 48
- 802.3af (PoE) and 802.3at (PoE+) support
- 370 W PoE power budget
- 19in, 1U rack-mountable

- 802.3af (PoE) and 802.3at (PoE+) support

- DGS-1210-52MP
- SFP ports x 4

					E
	DGS-1210-28	DGS-1210-28P	DGS-1210-52	DGS-1210-52P	DGS-1210-52MP
	24	24	48	48	48
	4	4	4	4	4
	56 Gbps	56 Gbps	104 Gbps	104 Gbps	104 Gbps
	1.5 MB per Device		3 MB per Device		
	Max. 14 Groups per De 8 Ports per Group	evice/	Max. 26 Groups per De 8 Ports per Group	evice/	
		802.3af (PoE) 802.3at (PoE+)		802.3af (PoE) 802.3at (PoE+)	802.3af (PoE) 802.3at (PoE+)
		24 193 W		24 193 W	48 370 W
		•		•	•
	22.45 W	251.3 W (PoE on) 26.3 W (PoE off)	38.27 W	270.2 W (PoE on) 46.5 W (PoE off)	483.1 W (PoE on) 48.9 W (PoE off)
dby	Mod, System Hibernation 0		2	3	3
			-		
n	440 x140 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 430 x 44 mm	440 x 430 x 44 mm

# Gigabit Smart Switches with Fibre Uplinks

### **DGS-1210 Series**

The DGS-1210 Series complies with the IEEE 802.3az Energy Efficient Ethernet standard, so offers a high level of energy saving and efficiency. Support for IPv6 management and configurations also ensures your network remains protected after the upgrade from IPv4 to IPv6. By providing good functionality, security, and manageability for a fraction of the standard cost of ownership, and offering multiple management options, these smart switches allow quick deployment, infrastructure expansion and seamless function upgrades so are perfect for small- and medium-sized businesses.

The DGS-1210 Series includes a range of cost-effective switches, two of which are PoEenabled for businesses looking to power VoIP phones, wireless access points or network cameras, but with a slightly lower overall power budget than the DGS-1210 Smart+ range on the previous page. The DGS-1210-08P is an 8-port Smart PoE Switch that provides eight PoE-enabled ports supplying power of up to 15.4 W each, whereas the DGS-1210-24P has 24 ports, of which 12 are enabled with PoE+ support, delivering up to 30 W of power in keeping with the IEEE 802.3at standard.



#### **Principle Product Features**

#### DGS-1210-08P

- 10/100/1000BASE-T PoE ports x 8
- 802.3af PoE support
- 45 W PoE power budget
- Fanless
- 11in, 1U desktop

#### DGS-1210-16

• 10/100/1000BASE-T ports x 16

DGS-1210-24P

• SFP ports x 4

 802.3af (PoE) and 802.3at (PoE+) support

85 W PoE power budget

19in, 1U rack-mountable

• 10/100/1000BASE-T PoE ports x 12

• 10/100/1000BASE-T ports x 12

- SFP ports x 4
- Fanless
- 11in, 1U desktop

#### DGS-1210-24

- 10/100/1000BASE-T ports x 24
- SFP ports x 4
- Fanless
- 19in, 1U rack-mountable

#### **Optional Accessories**

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

#### Key Series Features

- Internet Group Management Protocol (IGMP) Snooping Loopback Detection (LBD) Cable diagnostics • 802.10 Virtual LAN (VLAN) Management VLAN Asymmetric VLAN Auto Voice VLAN • Quality of Service (QoS) Access Control List (ACL) 802.1X Access Control Port security Broadcast/multicast/unicast storm control D-Link SafeGuard Engine DHCP server screening • ARP spoofing prevention Web-based GUI
- Simple Network Management
- Protocol (SNMP)



#### DGS-1210-48

- 10/100/1000BASE-T ports x 44
  Combo 10/100/1000BASE-T/SFP
- ports x 4
- 19in, 1U rack-mountable

MODEL		DGS-1210-08P	DGS-1210-16
	Fast Ethernet		
Interfaces	Gigabit Ethernet	8	16
Interfaces	Combo Gigabit/SFP Slots		
	SFP Slots	2	4
	Stackability		
	Stacking Speed (per Port) Switching Capacity	20 Gbps	40 Gbps
	Forwarding Mode	Store-and-Forward	10 0005
General Features	Packet Buffer Memory	6 MB per Device	
	MAC Address Table	16,000	
	Flow Control	802.3x, HOL Blocking Prevention	
	MDI/MDIX	Configurable	
	Loop Protection 803.2ad Link Aggregation	802.1Q, 802.1w 8 Groups; 8 Ports per Group	
Layer 2 Features	Port Mirroring	One-to-One, Many-to-One, RX/T	X/Roth_Flow-Based
	Loopback Detection	•	a boan, non basea
	Cable Diagnostics		
	VLANs	256 Static	
	GVRP		
Virtual LAN (VLAN)	Protocol VLAN (802.1v)		
	Double VLAN (Q-in-Q) Auto Voice VLAN		
	Auto Surveillance VLAN		
	Groups	256	
Multicasting	Protocols	IGMP v1, v2	
	Standard	802.1p, DSCP	
Quality of Service (QoS)	Number of Queues	8	4
	Mode	Strict / WRR	
	CoS Handling Bandwidth Control	802.1p, DSCP Port-Based	
	STP Security	ruit-baseu	
	Per-Port MAC Limitation		
	Static MAC	64	
	Storm Control	Broadcast / Multicast / Unicast	
Security	IP-MAC-Port Binding	•	
	DHCP Server Screening	•	
	ARP Spoofing Prevention	•	
	Traffic Segmentation D-Link SafeGuard Engine	•	
	802.1x Authentication	Port-Based	
	Web-Based Access Contol (WAC)		
Authentication, Authorisation and	MAC-Based Access Contol (MAC)		
Accounting (AAA)	Network Access Protection (NAP)		
	Guest VLAN		
	Switch Access Rules	200	
Access Control Lists (ACL)	Mac-Based ACL	200 VLAN ID, 802.1p, MAC, IP, DSCP, P	ort
Access control LISCS (ACE)	Time-Based ACL	VEARID, 002.10, MAC, 11, 05CI, 1	011
	Standard	802.3af (PoE)	
Power over Ethernet	PoE Ports	8	
	PoE Power Budget	45 W	
	Time-Based PoE	•	
	Switch Access	Web GUI, Telnet	
	sFlow SNMP	v1/v2c/v3	
Management	DHCP	Client	
	RMON	circin	
	TFTP Client	•	
	Syslog	•	
	Power Supply	Internal	
	Maximum Power Consumption	60 W (PoE on) 5.6 W (PoE off)	17.4 W
	Power-Saving Technology	Link Status, Cable Length Detecti	on , LED or Port Shuto
Physical and Environment	Number of Fans	0	0
	Operating Temperature	0°C to 50°C	0°C to 40°C
	operating temperature		
	Operating Humidity	10% to 95% RH Non-Condensing	
	Operating Humidity Dimensions (W x D x H)	280 x 180 x 44 mm	440 x 210 x 44 mm
Modules/Transceivers	Operating Humidity		440 x 210 x 44 mm 799,491 Hours



				33
	DGS-1210-24	DGS-1210-24P	DGS-1210-48	
	24	24	44	
	4	4	4	
	56 Gbps	56 Gbps	96 Gbps	
	50 0005	50 0005	70 dbp3	
	4	8	4	
		Port-Based		
	•	Port-Based		
		802.3af (PoE), 802.3at (PoE+) 12		
		85 W		
off Deat Ct	24.1W	120 W (PoE on) 9.7 W (PoE off)	59.1 W	
oir , Port Stand	Iby mod, System Hibernation mod 0	2	2	
	0°C to 40°C	0°C to 50°C	0°C to 40°C	
	440 x 210 x 44 mm 410,948 Hours	441 x 209.9 x 44 mm 205,768 Hours	440 x 250 x 44 mm 322,402 Hours	

# Fast Ethernet Smart 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 mediumsized 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
- Fanless

#### DES-1210-28

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

DV-700

• 19in, 1U rack-mountable

#### DES-1210-28P

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

#### DES-1210-52

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

#### • Fanless

• 19in, 1U rack-mountable

#### What speed does Ethernet run at?

Ethernet interfaces are referred to as 10BASE-T (Ethernet), 100BASE-TX (Fast Ethernet), 1000BASE-T (Gigabit Ethernet) and 10GBASE-T (10 Gigabit Ethernet.) Each standard represents a 10-fold increase in data transfer speed. 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
	Fast Ethernet	8	24	24	48
Interfaces	Gigabit Ethernet		2	2	2
	Combo Gigabit/SFP Slots		2	2	2
	Stackability				
	Stacking Speed (per Port)	1/6	12.0 (1	12.0 Char	17 ( ( )
	Switching Capacity Forwarding Mode	1.6 Gbps Store-and-Forward	12.8 Gbps	12.8 Gbps	17.6 Gbps
General Features	Packet Buffer Memory	384 KB	512 KB	512 KB	1 MB
	MAC Address Table	8000	51210	51210	TMD
	Flow Control	802.3x, HOL Blocking Prevention			
	MDI/MDIX	Configurable			
	Loop Protection	802.1Q, 802.1w			
	803.2ad Link Aggregation	4 Groups	14 Groups	14 Groups	26 Groups
L2 Features		8 Ports per Group	8 Ports per Group	8 Ports per Group	8 Ports per Group
	Port Mirroring	One-to-One, Many-to-One, RX/TX/	/BOIN		
	Loopback Detection Cable Diagnostics	•			
	VLANs	256 Static			
	GVRP	250 50000			
	Protocol VLAN (802.1v)				
Virtual LAN (VLAN)	Double VLAN (Q-in-Q)				
	Auto Voice VLAN	•			
	Auto Surveillance VLAN	•			
Multicasting	Groups	256			
multicasting	Protocols	IGMP v1, v2			
	Standard	802.1p, DSCP			
	Number of Queues	4			
Quality of Service (QoS)	Mode	Strict / WRR			
	CoS Handling Bandwidth Control	802.1p, DSCP			
	STP Security	•			
	Per-Port MAC Limitation				
	Static MAC	64			
	Storm Control	Broadcast / Multicast / Unicast			
Security	IP-MAC-Port Binding				
	DHCP Server Prevention	•			
	ARP Spoofing Prevention	•			
	Traffic Segmentation	•			
	D-Link SafeGuard Engine	Port-Based			
	802.1x Authentication Web-based Access Contol (WAC)	Port-based			
Authentication,	MAC-based Access Contol (MAC)				
Authorisation and	Network Access Protection (NAP)				
Accounting (AAA)	Guest VLAN				
	Switch Access				
	Rules	240			
Access Control Lists (ACL)	Mac-Based ACL	VLAN ID, 802.1p, MAC, IP, DSCP, Por	rt		
	Time-Based ACL				
	Standard	802.3af (PoE)		802.3af (PoE), 802.3at (PoE+)	
Power over Ethernet	PoE Ports	8		802.3af (PoE): 24 802.3at (PoE+): 4	
	PoE Power Budget	72 W		193 W	
	Time-Based PoE	•		•	
	Switch Access	Web GUI, Telnet			
	sFlow				
	SNMP	v1/v2c/v3			
Management	DHCP	Client			
	RMON				
	TFTP Client	•			
	Syslog Power Supply	• External	Internal	Internal	Internal
	Power Supply	89.4 W (PoE on)		254 W (PoE on)	
	Maximum Power Consumption	9.6 W (PoE off)	13.4W	26.4 W (PoE off)	28.9 W
	Power Saving Technology			Smart Fans	
		0	0	3	0
Physical and Environment	Number of Fans	U			
Physical and Environment	Operating Temperature	0°C to 40°C			
Physical and Environment	Operating Temperature Operating Humidity	0°C to 40°C 5% to 95% RH Non-Condensing			
Physical and Environment	Operating Temperature	0°C to 40°C 5% to 95% RH Non-Condensing 190 x 120 x 38 mm	440 x 140 x 44 mm 356,242 Hours	440 x 250 x 44 mm 205,416 Hours	440 x 250 x 44 mm 592,770 Hours



Protocol (SNMP)	
dlinkigreen	

**Key Series Features** 

Multicast filtering

Management VLAN

Asymmetric VLAN

Auto Voice VLAN

storm control

• Quality of Service (QoS)

Access Control List (ACL)

Broadcast/multicast/unicast

Simple Network Management

• D-Link SafeGuard Engine DHCP server screening • ARP spoofing prevention Web-based GUI

• 802.1X Access Control

Internet Group Management

• 802.1Q tagged Virtual LAN (VLAN)

Protocol (IGMP) snooping

from 10BASE-T (10 million bits per

**Optional Accessories** D-View 7 Network Management System 35

# **Gigabit Smart 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 8, 16, 16+2 SFP, 24, 24+2 SFP, 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<sup>™</sup> 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.



#### **Principle Product Features**

#### DGS-1100-08 • 10/100/1000BASE-T ports x 8

- Fanless
- 7in, desktop

#### DGS-1100-08P

- 10/100/1000BASE-T PoE ports x 8
- 802.3af PoE Support
- 64 W PoE Power Budget
- Fanless
- 7in, desktop

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

- Fanless
- 11in, 1U rack-mountable
- DGS-1100-18
- 10/100/1000BASE-T ports x 16
- SFP ports x 2
- Fanless
- 11in, 1U rack-mountable

#### DGS-1100-24

- 10/100/1000BASE-T ports x 24
- Fanless
- 11in, 1U rack-mountable

#### **Optional Accessories**

#### DV-700 D-View 7 Network Management System

#### DGS-1100-24P

- 10/100/1000BASE-T ports x 24
- 802.3af (PoE) and
- 802.3at (PoE+) support 100 W PoE power budget
- 11in, 1U rack-mountable

**Key Series Features** 

Basic configurable options

• 11in metal case. Comes with adapters to install in 19in racks

(except DGS-1100-08/08P)

• VLAN support for traffic

surveillance systems

network downtime • Quality of Service (QoS) and Bandwidth Control to ensure

smooth operation

(EEE) compliant

utility

 Auto surveillance VLAN for easy integration with IP-based

• Loopback Detection (LBD) and

Broadcast Storm Control to avoid

Cable diagnostics function to help

troubleshoot wiring problems Web-based GUI or SmartConsole

• 802.3az Energy Efficient Ethernet

segmentation

Improved resilience, longer MTBF

(Mean Time Between Failures)



Interfaces     Fast Ethernet Gigabit Ethernet     8     8     16     16     24     24       Combo Gigabit/SFP Slots     8     16     16     2     24     24       Stackability     1     16     2     2     16     16     24     24       Stackability     1     16     16     2     16	5-1100-24P DG5-1100-26 24
MODEL     DGS-1100-08     DGS-1100-08P     DGS-1100-16     DGS-1100-18     DGS-1100-24     DGS-1100-24       hterfaces     Fast Ethernet     6     6     16     24     24       formo Gigabit/SFP Slots     6     6     16     24     24       Stackability     6     6     2     6     6       Stackability     6     6     6     6     6       Switching Capacity     16 Gbps     16 Gbps     32 Gbps     36 Gbps     48 Gbps     48 Gbps	
Fast Ethernet     Fast Ethernet     8     16     16     24     24       Gigabit Ethernet     8     8     16     16     24     24       Combo Gigabit/SFP Slots     -     -     2     2     2       Stackability     -     -     -     -     -     -       Stackability     -     -     -     -     -     -       Switching Capacity     16 Gbps     16 Gbps     32 Gbps     36 Gbps     48 Gbps     48 Gbps	
terfaces     Gigabit Ethernet     8     8     16     16     24     24       Combo Gigabit/SFP Slots	24
Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots       Stackability     Stackability     Image: Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots       Stackability     Stackability     Image: Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots       Stackability     Stackability     Image: Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots       Stackability     Stackability     Image: Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots       Stackability     Stackability     Image: Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots       Stackability     Stackability     Image: Combo Gigabit/SFP Slots     Image: Combo Gigabit/SFP Slots       Switching Capacity     16 Gbps     16 Gbps     32 Gbps     36 Gbps     48 Gbps       Beatures     Forwarding Mode     Store-and-Forward	24
Stackability     Stackability     Stacking Speed (per Port)       Switching Capacity     16 Gbps     16 Gbps     32 Gbps     36 Gbps     48 Gbps     48 Gbps       Per all Features     Forwarding Mode     Store-and-Forward     50 Gbps     50 Gbps     50 Gbps     50 Gbps	2
Switching Capacity         16 Gbps         16 Gbps         32 Gbps         36 Gbps         48 Gbps	
Forwarding Mode Store-and-Forward	ops 52 Gbps
ineral Features	iha 25 anha
Packet Buffer Memory 2 Mb 2 Mb 512 Kb 1.5 Mb 512 Kb 512 Kb 512 Kb	(b 1.5 Mb
MACAddresTable 8000	
Flow Control 802.3x, HOL Blocking Prevention	
MDI/MDIX Auto	
Loop Protection -	
8 Grouns 9 Grouns	13 Groups
803.2ad Link Aggregation 2 Groups; 2-4 Ports per Group 8 Ports per Group 8 Ports per Group 12 Groups; 8 Ports per Group	8 Ports per Group
Features Port Mirroring One-to-One, Many-to-One	
Loopback Detection •	
Cable Diagnostics •	
VLANs 32 Static	
GVRP	
Protocol VLAN (802.1v)	
rtual LAN (VLAN) Double VLAN (Q-in-Q)	
Auto Voice VLAN •	
Auto Surveillance VLAN -	
droups 32	
Protocols IGMP v1/v2	
Standard 802.1p	
ality of Service Number of Queues 4	
oS) Strict / WRR	
CoS Handling	
Bandwidth Control Port-Based	
STP Security	
Per-Port MAC Limitation •	
Static MAC 128	
Storm Control Broadcast / Multicast / Unicast	
scurity IP-MAC-Port Binding	
DHCP Server Prevention	
ARP Spoofing Prevention	
Traffic Segmentation	
D-Link SafeGuard Engine	
	Bat (PoE+)
wer over PoEPorts 8 12	
hernet PoE Power Budget 64 W 100 W	V
Time-Based PoE	
Switch Access Web GUI	
SHOW	
SNMP	
Inagement DHCP	
RMON TETR Client	
TFTP Client	
Syslog Deurs Cample	
Power Supply         Internal           Maximum Power         4 POW         78.8 W (PoE on)         0.31 W         14 POW         12 POW         128.33	32 W (PoE on)
	4 W (PoE off) 19.04 W
Power-Saving Technology IEEE 802.3az Energy Efficient Ethernet	
nysical and Number of Fans 0 1	0
	to 50°C
Operating Humidity 10% to 95% RH Non-Condensing 0% to 95% RH Non-Condensing	
	230 x 44 mm 280 x 180 x 44 mm
Mean Time Retween	
	292 Hours 2,277,645 Hours

#### DGS-1100-26

- 10/100/1000BASE-T ports x 16
- SFP ports x 2
- Fanless
- 11in, 1U rack-mountable

# Fast Ethernet Smart Switches

### **DES-1100 Series**

The DES-1100 Series provides businesses with the benefits of a managed device but without the associated complexity and cost. Equipped with 16 or 24 Fast Ethernet ports, these switches 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**

#### DES-1100-16

- 10/100BASE-TX ports x 16
- 802.3ad link aggregation
- Static VLAN
- 802.1p QoS
- Fanless

- DES-1100-24 • 10/100BASE-TX ports x 24 • 802.3ad link aggregation Static VLAN • 802.1p QoS
- Fanless

#### **Optional Accessories**

DV-700 D-View 7 Network Management System

#### **Key Series Features**

- Basic configurable options • 11in metal case. Comes with
- adapters to install in 19in racks
- Fanless, for silent operation
- Improved resilience, longer MTBF (Mean Time Between Failures)
- VLAN support for traffic segmentation
- Loopback Detection (LBD) and Broadcast Storm Control to avoid network downtime
- Quality of Service (QoS) and Bandwidth Control to ensure
- smooth operation Web-based GUI or SmartConsole
- utilitv

#### 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		DES-1100-16
	Fast Ethernet	16
Interfaces	Gigabit Ethernet	
	Combo Gigabit/SFP Slots	
	Stackability	
	Stacking Speed (per Port)	
	Switching Capacity	3.2 Gbps
	Forwarding Mode	Store-and-Forward
General Features	Packet Buffer Memory	1.75 Mb
	MAC Address Table	8000
	Flow Control	802.3x
	MDI/MDIX	Auto
	Loop Protection	
	803.2ad Link Aggregation	2 Groups, 4 Ports per Group
L2 Features	Port Mirroring	One-to-One, Many-to-One
	Loopback Detection	•
	Cable Diagnostics	
	VLANs	32 Static
	GVRP	52 Stutt
	Protocol VLAN (802.1v)	
Virtual LAN (VLAN)	Double VLAN (Q-in-Q)	
	Auto Voice VLAN	
	Auto Surveillance VLAN	
	Groups	32
Multicasting	Protocols	IGMP v1/v2
	Standard	802.1p
	Number of Queues	2
Auglity of Corvice (AoS)	Mode	2 Strict / WRR
Quality of Service (QoS)	CoS Handling	SUICE/ WRR
	Bandwidth Control	Port-Based
	STP Security	Fort-based
	Per-Port MAC Limitation	
	Static MAC LIMITATION	128
	Static MAC Storm Control	Broadcast / Multicast / Unicast
Security	IP-MAC-Port Binding	Broadcast / Multicast / Unicast
	DHCP Server Prevention	
	ARP Spoofing Prevention	
	D-Link SafeGuard Engine Switch Access	Web GUI
	sFlow	Web GUI
	SNMP	
N	DHCP	
Management	RMON	
	TFTP Client	
	Syslog	
	Power Supply	Internal
	Maximum Power Consumption	5.96 W
	Power-Saving Technology	
Physical and Environment	Number of Fans	0
	Operating Temperature	0°C to 40°C
	Operating Humidity	10% to 95% RH Non-Condensing
	Dimensions (W x D x H)	280 x 125 x 44 mm
	Mean Time Between Failures (MTBF)	597,779 Hours



DES-1100-24
24
4.8 Gbps
7.68 W
5/2 40/11

39

# Gigabit 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<sup>™</sup> 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.

## **DGS-1000 Series**

DGS-1005D	DGS-1008D	DGS-1008P
<ul> <li>10/100/1000BASE-T ports x 5</li> <li>External power supply</li> </ul>	<ul> <li>10/100/1000BASE-T ports x 8</li> <li>External power supply</li> </ul>	<ul> <li>10/100/1000BASE-T ports x 8</li> <li>Includes 802.3af PoE ports x 4</li> </ul>
• Desktop	• Desktop	External power supply
Fanless	• Fanless	Desktop
<ul> <li>D-Link Green<sup>™</sup></li> </ul>	<ul> <li>D-Link Green<sup>™</sup></li> </ul>	• Fanless
DGS-1008MP	DGS-1016D	DGS-1024D
<ul> <li>• 10/100/1000BASE-T PoE ports x 8</li> </ul>	<ul> <li>10/100/1000BASE-T ports x 16</li> <li>Internal power supply</li> </ul>	<ul> <li>10/100/1000BASE-T ports x 24</li> <li>Internal power supply</li> </ul>
<ul> <li>Internal power supply</li> </ul>	• 11in, 1U desktop with	• 11in, 1U desktop with

**DGS-108** 

• 10/100/1000BASE-T ports x 8

Robust metal product housing

• 802.3az Energy Efficient

Cable diagnostics function

Slot for Kensington security lock

Ethernet (EEE)

### DGS-105/108 Series



- 10/100/1000BASE-T ports x 5
- Robust metal product housing
- 802.3az Energy Efficient Ethernet (EEE)
- Cable diagnostics function
- Slot for Kensington security lock



#### **Key Series Features**

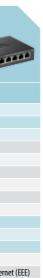
- Power savings by link status
- Power savings by cable length
- detection • Jumbo frame
- IEEE 802.3x Flow Control
- Auto MDI/MDIX
- Quality of Service (QoS)
- Cable diagnostics

				TO-Stewarts			
MODEL		DGS-1005D	DGS-1008D	DGS-1008P	DGS-1008MP	DGS-1016D	DGS-1024D
	100BASE-TX (Fast Ethernet)						
Interfaces	1000BASE-T (Gigabit)	5	8	8	8	16	24
	100BASE-FX (Fibre)						
	Switching Capacity	10 Gbps	16 Gbps	16 Gbps	16 Gbps	48 Gbps	32 Gbps
	Forwarding Mode	Store-and-Forward					
General Features	Packet Buffer Memory	192 KB	192 KB	192 KB	128 KB	512 KB	512 KB
defieldi rediules	MAC Address Table	8000	4000	4000	8000	8000	8000
	Flow Control	802.3x					
	MDI/MDIX	Auto					
Quality of Service (QoS)	Standard	802.1p	802.1p	802.1p, DSCP	802.1p	802.1p	802.1p
Quality of Service (Q05)	Number of Queues			4	4		
	Standard			802.3af (PoE)	802.3at (PoE+)		
Power over Ethernet	PoE Ports			4	8		
	PoE Power Budget			52 W	140 W		
	Power Supply	External			Internal		
	Power-Saving Technology	Green Ethernet and Energy	<ul> <li>Efficient Ethernet(EEE)</li> </ul>			Green Ethernet	
	Number of Fans	0					
Physical and Environment	Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 50°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
	Operating Humidity	10% to 90% RH Non-Condensing	10% to 90% RH Non-Condensing	0% to 95% RH Non-Condensing	5% to 90% RH Non-Conde	nsing	
	Dimensions (W x D x H)	44.2 x 100.2 x 32.6 mm	164.5 x 112.4 x 35.0 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



MODEL		DGS-105	DGS-108
	100BASE-TX (Fast Ethernet)		
Interfaces	1000BASE-T (Gigabit)	5	8
	100BASE-FX (Fibre)		
	Switching Capacity	10 Gbps	16 Gbps
	Forwarding Mode	Store-and-Forward	
	Packet Buffer Memory	128 KB	128 KB
ieneral Features	MAC Address Table	2000	8000
	Flow Control	IEEE 802.3x	IEEE 802.3x
	MDI/MDIX	Auto MDI/MDIX Adjustment for a	all Ports
	Standard	IEEE 802.1p	IEEE 802.1p
uality of Service (QoS)	Number of Queues	4 Queues	4 Queues
	Mode	Strict	Strict
	Power Supply	External 5 V/1 A Level 'V' Power	Adapter
	Power-Saving Technology	Green Ethernet and IEEE 802.3az	Energy-Efficient Ethe
New indexed Factions and	Number of Fans	0	
Physical and Environment	Operating Temperature	0°C to 50°C	
	Operating Humidity	5% to 90% RH Non-Condensing	
	Dimensions (W x D x H)	100 x 98 x 28 mm	162 x 102 x 28 mm





# Fast Ethernet Unmanaged Switches

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

### **DES-1000 Series**

#### **DES-1005D DES-1008D DES-1005P DES-1008PA** LITT • 10/100BASE-TX ports x 5 • 10/100BASE-TX ports x 8 • 10/100BASE-TX ports x 5 • 10/100BASE-TX ports x 8 Includes 802.3af PoE ports x 4 External power supply Includes 802 3 of PoE ports • External power supply • Des • Desktop • Fan • Fanless DES **DES-1008F** -----• 10/100BASE-TX ports x 7 • 10/ ports x 16 • 100BASE-FX port x 1 • Inte • 11in • External power supply rack Desktop • Fanl • Fanless **DES-1024D**

- 10/100BASE-TX ports x 24
- Internal power supply • 11in, 1U desktop with
- rack-mountable kit
- Fanless

#### **Key Series Features**

- Fanless
- IEEE 802.3x Flow Control
- Auto MDI/MDIX
- Plug-and-Play installation filtering
- Quality of Service (QoS)
- (DES-1016D and DES-1024D)

		Standard	802.1p
	Quality of Service (QoS)	Number of Queues	
		Mode	
	Standard           Power over Ethernet         PoE Ports           PoE Power Budget         PoE Power Budget		
		PoE Power Budget	
		Power Supply	External
		Power-Saving Technology	Green Ethernet and Energy-Efficien
	Dhurical and Environment	Number of Fans	0
	Physical and Environment	Operating Temperature	0°C to 50°C
		Operating Humidity	10% to 90% RH Non-Condensing
		Dimensions (W x D x H)	125.3 x 83.4 x 29.1 mm

MODEL		DES-1005D	DES-1008D	DES-1005P		DES-1008PA		DES-1008F
	100BASE-TX (Fast Ethernet)	5	8	5		8		7
nterfaces	1000BASE-T (Gigabit)							
	100BASE-FX (Ethernet Fibre Link)							1
	Switching Capacity	1 Gbps	1.6 Gbps	1 Gbps		1.6 Gbps		1.6 Gbps
	Forwarding Mode	Store-and-Forward						
eneral Features	Packet Buffer Memory	57 KB	57 KB	64 KB		96 KB		96 KB
	MAC Address Table	2000	1000	2000		1000		1000
	Flow Control	802.3x						
	MDI/MDIX	Auto						
	Standard	802.1p						
uality of Service (QoS)	Number of Queues			4				
	Mode			Strict		002 2-6 (0-5)		
Fall	Standard			802.3af (PoE)		802.3af (PoE)		
ower over Ethernet	PoE Ports			1 15.4 W		4 52 W		
	PoE Power Budget	External		15.4 W		52 W		
	Power Supply		t Ethomot (EEE)					
	Power-Saving Technology Number of Fans	Green Ethernet and Energy-Efficien 0	( Ethemet (EEE)					
L	NUTIDET OF Fails	U						
nysical and Environment	Operating Temperature	0°C to 50°C	0°C to 40°C	0°C to 40°C		0°C to 40°C		0°C to 40°C
nysical and Environment	Operating Temperature	0°C to 50°C 10% to 90% RH Non-Condensing	0°C to 40°C	0°C to 40°C		0°C to 40°C 5% to 90% RH Non-Con	ndensina	0°C to 40°C 10% to 90% RH Non-Condensing
nysicai ano Environment	Operating Temperature Operating Humidity Dimensions (W x D x H)	0°C to 50°C 10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm	0°C to 40°C 164.5 x 111.5 x 36.0 mm	0°C to 40°C 140 x 85 x 28 m	nm	0°C to 40°C 5% to 90% RH Non-Con 172 x 98 x 27.9 mm	ndensing	
Physical and Environment	Operating Humidity	10% to 90% RH Non-Condensing			nm	5% to 90% RH Non-Con	ndensing	10% to 90% RH Non-Condensing
MODEL	Operating Humidity	10% to 90% RH Non-Condensing			nm	5% to 90% RH Non-Con	ndensing DES-10	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
	Operating Humidity	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm		P	5% to 90% RH Non-Con		10% to 90% RH Non-Condensing 192 x 117 x 32 mm
	Operating Humidity Dimensions (W x D x H)	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm DES-1018P		<b>DES-1018MP</b> 16	5% to 90% RH Non-Con	DES-10	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
MODEL	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet)	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm DES-1018P		DES-1018MP	5% to 90% RH Non-Con	DES-10 24	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
AODEL	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm DES-1018P 16		<b>DES-1018MP</b> 16	5% to 90% RH Non-Con	DES-10	10% to 90% RH Non-Condensing 192 x 117 x 32 mm 024D
AODEL	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm		<b>DES-1018MP</b> 16 2 7.2 Gbps	5% to 90% RH Non-Con	<b>DES-10</b> 24 4.8 Gbp	10% to 90% RH Non-Condensing 192 x 117 x 32 mm 024D
AODEL Iterfaces	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB	164.5 x 111.5 x 36.0 mm <b>DES-1018P</b> 16 2 7.2 Gbps 384KB		DES-1018MP 16 2 7.2 Gbps 384KB	5% to 90% RH Non-Con	<b>DES-1</b> ( 24 4.8 Gbp 2 MB	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
NODEL Iterfaces	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Gapacity Forwarding Mode Packet Buffer Memory MAC Address Table	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000	164.5 x 111.5 x 36.0 mm		<b>DES-1018MP</b> 16 2 7.2 Gbps	5% to 90% RH Non-Con	<b>DES-10</b> 24 4.8 Gbp	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
NODEL Iterfaces	Operating Humidity Dimensions (W x D x H) 1000BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x	164.5 x 111.5 x 36.0 mm <b>DES-1018P</b> 16 2 7.2 Gbps 384KB		DES-1018MP 16 2 7.2 Gbps 384KB	5% to 90% RH Non-Con	<b>DES-1</b> ( 24 4.8 Gbp 2 MB	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
NODEL Iterfaces	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T (Sigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto	164.5 x 111.5 x 36.0 mm <b>DES-1018P</b> 16 2 7.2 Gbps 384KB		DES-1018MP 16 2 7.2 Gbps 384KB	5% to 90% RH Non-Con	<b>DES-1</b> ( 24 4.8 Gbp 2 MB	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
MODEL nterfaces ieneral Features	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p	164.5 x 111.5 x 36.0 mm <b>DES-1018P</b> 16 2 7.2 Gbps 384KB		DES-1018MP 16 2 7.2 Gbps 384KB	5% to 90% RH Non-Con	<b>DES-10</b> 24 4.8 Gbp 2 MB 8000	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
MODEL Iterfaces eneral Features	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p 2	164.5 x 111.5 x 36.0 mm <b>DES-1018P</b> 16 2 7.2 Gbps 384KB		DES-1018MP 16 2 7.2 Gbps 384KB	5% to 90% RH Non-Con	<b>DES-10</b> 24 4.8 Gbp 2 MB 8000	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
MODEL Iterfaces eneral Features	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDU/MDIX Standard Number of Queues Mode	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p	164.5 x 111.5 x 36.0 mm		<b>DES-1018MP</b> 16 2 7.2 Gbps 384KB 8000	5% to 90% RH Non-Con	<b>DES-10</b> 24 4.8 Gbp 2 MB 8000	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
AODEL Iterfaces eneral Features uality of Service (QoS)	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p 2	164.5 x 111.5 x 36.0 mm		DES-1018MP 16 2 7.2 Gbps 384KB 8000	5% to 90% RH Non-Con	<b>DES-10</b> 24 4.8 Gbp 2 MB 8000	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
AODEL Iterfaces eneral Features uality of Service (QoS)	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard PoE Ports	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p 2	164.5 x 111.5 x 36.0 mm		DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16	5% to 90% RH Non-Con	<b>DES-10</b> 24 4.8 Gbp 2 MB 8000	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
NODEL Iterfaces eneral Features uality of Service (QoS)	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm DES-1016D 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p 2 Strict	164.5 x 111.5 x 36.0 mm		DES-1018MP 16 2 7.2 Gbps 384KB 8000	5% to 90% RH Non-Con	<b>DES-10</b> 24 4.8 Gbp 2 MB 8000	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
AODEL Iterfaces eneral Features uality of Service (QoS)	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard PoE Ports	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p 2	164.5 x 111.5 x 36.0 mm		DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16	5% to 90% RH Non-Con	DES-11 24 4.8 Gbp 2 MB 8000	10% to 90% RH Non-Condensing 192 x 117 x 32 mm
NODEL Iterfaces eneral Features uality of Service (QoS) ower over Ethernet	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget Power Supply	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm DES-1016D 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p 2 Strict Internal	164.5 x 111.5 x 36.0 mm		DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16	5% to 90% RH Non-Con	DES-11 24 4.8 Gbp 2 MB 8000	10% to 90% RH Non-Condensing 192 x 117 x 32 mm 024D 05
MODEL Iterfaces eneral Features uality of Service (QoS) ower over Ethernet	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget Power-Saving Technology	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm DES-1016D 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto 802.1p 2 Strict Internal Green Ethemet and Energy-Efficient Eth	164.5 x 111.5 x 36.0 mm		DES-1018MP 16 2 7.2 Gbps 384KB 8000	5% to 90% RH Non-Con	DES-11 24 4.8 Gbp 2 MB 8000 2 Strict Green Et	10% to 90% RH Non-Condensing 192 x 117 x 32 mm 024D 05
MODEL	Operating Humidity Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI//MDIX Standard Number of Queues Mode Standard PoE Ports PoE Ports PoE Ports PoE Power Budget Power-Saving Technology Number of Fans	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm DES-1016D 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto 802.1p 2 Strict Internal Green Ethernet and Energy-Efficient Eth 0	164.5 x 111.5 x 36.0 mm		DES-1018MP 16 2 7.2 Gbps 384KB 8000	5% to 90% RH Non-Con	DES-11 24 4.8 Gbp 2 MB 8000 2 Strict Green Et	10% to 90% RH Non-Condensing 192 x 117 x 32 mm 024D 05



MODEL		DES-105	DES-108
	100BASE-TX (Fast Ethernet)	5	8
Interfaces	1000BASE-T (Gigabit)		
	100BASE-FX (Ethernet Fibre Link)		
	Switching Capacity	1.0 Gbps	1.6 Gbps
	Forwarding Mode	Store-and-Forward	
General Features	Packet Buffer Memory	384 KB	768 KB
	MAC Address Table	2000	1000
	Flow Control	IEEE 802.3x	
	MDI/MDIX	Auto MDI/MDIX Adjustment for all Ports	
	Standard	IEEE 802.1p	IEEE 802.1
Quality of Service (QoS)	Number of Queues	2 Queues	2 Queues
	Mode	Strict	WRR Mode
	Power Supply	External 5 V/1 A Level "V" Power Adapter	
	Power-Saving Technology	Green Ethernet and IEEE 802.3az Energy E	fficient Ether
Dhuning I am d Family and and	Number of Fans		
Physical and Environment	Operating Temperature	0°C to 50°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

ternal power supply sktop nless	<ul> <li>Includes 802.3af PoE ports x 1</li> <li>QoS support for traffic prioritisation</li> <li>Green Ethernet technology</li> <li>Fanless</li> </ul>	<ul> <li>Includes 802.3af PoE p</li> <li>External power supply</li> <li>Desktop</li> <li>Fanless</li> </ul>
S-1016D VIOBASE-TX ports x 16 ternal power supply in, 1U desktop with ck-mountable kit nless	DES-1018P www.example.com/operative.com/ope	DES-1018MP <b>DES-1018MP</b> <b>OUTOBASE-TX POE poly</b> <b>OUTOBASE-TX POE poly</b> <b>OUT</b>
	DES-105/108 Sec DES-105 UES-105 • 10/100BASE-TX ports x 5 • Plug-and-play operation • QoS functionality	<b>DES-108</b> <b>DES-108</b> <b>OUTURE OF CONTRACT</b> <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT</b> <b>OUTURE OF CONTRACT</b> <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT</b> <b>OUTURE OF CONTRACT</b> <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT</b> <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT</b> <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT <b>OUTURE OF CONTRACT <b>OUTURE OF CON</b></b></b></b></b></b></b></b></b></b></b></b></b></b></b>

- Robust metal housing
- Low energy consumption

T

x 8

• Low energy consumption

- QoS functionality
- Robust metal housing

MODEL		DES-1005D	DES-1008D	DES-1005P		DES-1008PA	DES-1008F	
	100BASE-TX (Fast Ethernet)	5	8	5		8	7	
nterfaces	1000BASE-T (Gigabit)							
	100BASE-FX (Ethernet Fibre Link)						1	
	Switching Capacity	1 Gbps	1.6 Gbps	1 Gbps		1.6 Gbps	1.6 Gbps	
	Forwarding Mode	Store-and-Forward						
General Features	Packet Buffer Memory	57 KB	57 KB	64 KB		96 KB	96 KB	
	MAC Address Table	2000	1000	2000		1000	1000	
	Flow Control	802.3x						
	MDI/MDIX	Auto						
	Standard	802.1p						
Quality of Service (QoS)	Number of Queues			4				
	Mode			Strict		000 D (/D E)		
F.1	Standard			802.3af (PoE)		802.3af (PoE)		
Power over Ethernet	PoE Ports			1		4		
	PoE Power Budget	E touri		15.4 W		52 W		
	Power Supply	External						
	Power-Saving Technology	Green Ethernet and Energy-Efficier	it Ethernet (EEE)					
Physical and Environment	Number of Fans	0 0°C to 50°C	0°C to 40°C	0°C to 40°C		0°C to 40°C	0°C to 40°C	
	Operating Temperature	0 C 10 50 C	U C 10 40 C	0 C to 40 C				
	Operating Useridity	100/ to 000/ DU Non Condensing				E0/ to 000/ DU Non Condor	noing 100/ to 000/ DU May	n Condone
	Operating Humidity Dimensions (W x D x H)	10% to 90% RH Non-Condensing 125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm	140 x 85 x 28 n	im	5% to 90% RH Non-Conder 172 x 98 x 27.9 mm	10% to 90% RH Nor 192 x 117 x 32 mm	
				140 x 85 x 28 n				
MODEL				140 x 85 x 28 m	IIII	172 x 98 x 27.9 mm		
MODEL		125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm	140 x 85 x 28 m	F	172 x 98 x 27.9 mm	192 x 117 x 32 mm	
MODEL	Dimensions (W x D x H)	125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm DES-1018P	140 x 85 x 28 m	DES-1018MP	172 x 98 x 27.9 mm	192 x 117 x 32 mm	
	Dimensions (W x D x H) 100BASE-TX (Fast Ethernet)	125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm DES-1018P	140 x 85 x 28 n	DES-1018MP	172 x 98 x 27.9 mm	192 x 117 x 32 mm	
	Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit)	125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm DE5-1018P 16	140 x 85 x 28 n	<b>DES-1018MP</b> 16	172 x 98 x 27.9 mm	192 x 117 x 32 mm	
	Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo)	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16	164.5 x 111.5 x 36.0 mm	140 x 85 x 28 n	DES-1018MP 16 2	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24	
nterfaces	Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps	164.5 x 111.5 x 36.0 mm	140 x 85 x 28 n	DES-1018MP 16 2	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24	
	Dimensions (W x D x H) 100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Gapacity Forwarding Mode Packet Buffer Memory MAC Address Table	125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm <b>DE5-1018P</b> 16 2 7.2 Gbps	140 x 85 x 28 n	<b>DES-1018MP</b> 16 2 7.2 Gbps	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps	
nterfaces	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control	125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm <b>DE5-1018P</b> 16 2 7.2 Gbps 384KB	140 x 85 x 28 n	DES-1018MP 16 2 7.2 Gbps 384KB	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB	
nterfaces	Dimensions (W x D x H)	125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm <b>DE5-1018P</b> 16 2 7.2 Gbps 384KB	140 x 85 x 28 n	DES-1018MP 16 2 7.2 Gbps 384KB	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB	
nterfaces ieneral Features	Dimensions (W x D x H)	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p	164.5 x 111.5 x 36.0 mm <b>DE5-1018P</b> 16 2 7.2 Gbps 384KB	140 x 85 x 28 n	DES-1018MP 16 2 7.2 Gbps 384KB	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000	
nterfaces	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T (Gigabit) 1000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto 802.1p 2	164.5 x 111.5 x 36.0 mm <b>DE5-1018P</b> 16 2 7.2 Gbps 384KB	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000	
nterfaces ieneral Features	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) 100BASE-T (Gigabit) 1000BASE-T (Gigabit) 1000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDL/MDIX Standard Number of Queues Mode	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p	164.5 x 111.5 x 36.0 mm <b>DES-1018P</b> 16 2 7.2 Gbps 384KB 8000	140 x 85 x 28 m	<b>DES-1018MP</b> 16 2 7.2 Gbps 384KB 8000	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000	
nterfaces ieneral Features Quality of Service (QoS)	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDL/MDIX Standard Number of Queues Mode Standard	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto 802.1p 2	164.5 x 111.5 x 36.0 mm DES-1018P 16 2 7.2 Gbps 384KB 8000 10 10 10 10 10 10 10 10 10	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB 8000	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000	
nterfaces ieneral Features Quality of Service (QoS)	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 10000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard PoE Ports	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto 802.1p 2	164.5 x 111.5 x 36.0 mm 164.5 x 111.5 x 36.0 mm DE5-1018P 16 2 7.2 Gbps 384KB 8000 384KB 8000 10 10 10 10 10 10 10 10 10	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000	
nterfaces ieneral Features Quality of Service (QoS)	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) I000BASE-T (Gigabit) I000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto 802.1p 2 Strict	164.5 x 111.5 x 36.0 mm DES-1018P 16 2 7.2 Gbps 384KB 8000 10 10 10 10 10 10 10 10 10	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB 8000	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000	
nterfaces ieneral Features wality of Service (QoS)	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) I000BASE-T (Gigabit) I000BASE-T/SEP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI/MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget Power Supply	125.3 x 83.4 x 29.1 mm <b>DES-1016D</b> 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3 x Auto 802.1 p 2 Strict Internal	164.5 x 111.5 x 36.0 mm 164.5 x 111.5 x 36.0 mm 164.5 x 101.5 x 36.0	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16	172 x 98 x 27.9 mm	192 x 117 x 32 mm	
nterfaces ieneral Features Quality of Service (QoS)	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) I000BASE-T (Gigabit) I000BASE-T (Gigabit) I000BASE-T/SFP (Combo) Switching Capacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI//MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget Power-Saving Technology	125.3 x 83.4 x 29.1 mm DES-1016D 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto 802.1p 2 Strict Internal Green Ethemet and Energy-Efficient Ete	164.5 x 111.5 x 36.0 mm	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16 246.4 W	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000 2 Strict Green Ethernet and Energy-Eff	
nterfaces General Features Quality of Service (QoS) Vower over Ethernet	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) I000BASE-T (Gigabit) I000BASE-T (Gigabit) I000BASE-T/SFP (Combo) Switching Gapacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI//MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget Power-Saving Technology Number of Fans	125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm 164.5 x 111.5 x 36.0 mm 164.5 x 101.5 x 36.0	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16	172 x 98 x 27.9 mm	192 x 117 x 32 mm	
nterfaces ieneral Features	Dimensions (W x D x H)  100BASE-TX (Fast Ethernet) 1000BASE-T (Gigabit) 1000BASE-T (Gigabit) 1000DBASE-T/SFP (Combo) Switching Gapacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDL/MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget Power Supply Power-Saving Technology Number of Fans Operating Temperature	125.3 x 83.4 x 29.1 mm DES-1016D 16 3.2 Gbps Store-and-Forward 2 MB 8000 802.3x Auto 802.1p 2 Strict Internal Green Ethernet and Energy-Efficient Et 0 0°C to 40°C	164.5 x 111.5 x 36.0 mm 164.5 x 111.5 x 36.0 mm DES-1018P 16 2 7.2 Gbps 384KB 8000 384KB 8000 4 8 8000 4 8 8 8 8 8 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16 246.4 W	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000 2 Strict Green Ethernet and Energy-Eff	
nterfaces ieneral Features Quality of Service (QoS) Power over Ethernet	Dimensions (W x D x H) I00BASE-TX (Fast Ethernet) I000BASE-T (Gigabit) I000BASE-T (Gigabit) I000BASE-T/SFP (Combo) Switching Gapacity Forwarding Mode Packet Buffer Memory MAC Address Table Flow Control MDI//MDIX Standard Number of Queues Mode Standard PoE Ports PoE Power Budget Power-Saving Technology Number of Fans	125.3 x 83.4 x 29.1 mm	164.5 x 111.5 x 36.0 mm 164.5 x 111.5 x 36.0 mm DES-1018P 16 2 7.2 Gbps 384KB 8000 384KB 8000 4 8 8000 4 8 8 8 8 8 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1	140 x 85 x 28 m	DES-1018MP 16 2 7.2 Gbps 384KB 8000 802.3af (PoE) 16 246.4 W	172 x 98 x 27.9 mm	192 x 117 x 32 mm DES-1024D 24 4.8 Gbps 2 MB 8000 2 Strict Green Ethernet and Energy-Eff	

rnet (EEE)

2 x 28 mm

# D-View 7 Network Management System



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.

#### **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.

#### **Key Series Features**

- Simplify management tasks
- Supports SNMP v1, v2c, and 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
- and browser

#### Us Int

- D

- Supports third-party devices
- Supports third-party device management by MIB compiler

#### **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.

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: English, Simplified Chinese, Traditional Chinese	
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
MONITORING		
Dashboard	Supports overall system and product summary for wired or wireless devices	Supports customized dashboard
Sensor	Supports following methods to data collection SNMP, PING	
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 Ping, SNMP	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: Value Match Keyword Match Keyword Combination Match	Supports customized escalation rules Supports email notification to defined users

#### **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.

# SFP/SFP+/XFP Transceivers

1 and a start

**Fast Ethernet** SFP

SFP Transceiver	S	R.	a
MODEL		DEM-210	DEM-211
Standard		IEEE 802.3u 100 BASE-FX	IEEE 802.3u 100 BASE-FX
Connector		Duplex LC	Duplex LC
Fibro Turno	Single-Mode	9/125 μm	
Fibre Type	Multi-Mode		62.5/125 μm
Wavelength		1310 nm	1310 nm
Maximum Distance		15 km	2 km
Power		3.3 V	3.3 V
Hot-Pluggable			•

201

D-Link's Small Form-Factor Pluggable (SFP) and 10 Gigabit Small Form-Factor Pluggable (XFP) Transceivers help to achieve long-distance data transmission and high-speed communication with single-mode fibre, multi-mode fibre 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.

24

44

### **Gigabit Ethernet**

SFP Transceiv	vers		Sec.	Contraction of the second	1
MODEL		DEM-310GT	DEM-311GT	DEM-312GT2	DEM-314GT
Standard		IEEE 802.3z 1000BASE-LX	IEEE 802.3z 1000BASE-SX	IEEE 802.3z 1000BASE-SX	IEEE 802.3z 1000BASE-LX
Connector		Duplex LC	Duplex LC	Duplex LC	Duplex LC
	Single-Mode	9/125 μm			9/125 μm
Fibre Type	Multi-Mode	50/125 μm 62.5/125 μm	50/125 μm 62.5/125 μm	62.5/125 μm	
Wavelength		1310 nm	850 nm	1310 nm	1310 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					

#### **10 Gigabit Ethernet** SFP+/XFP Transceivers

		<b>A</b>	<b>W</b>	(The second seco	4	10
MODEL		DEM-431XT	DEM-431XT-DD	DEM-432XT	DEM-432XT-DD	DEM-421XT
Standard		IEEE 802.3ae 10GBASE-SR	IEEE 802.3ae 10GBASE-SR	IEEE 802.3ae 10GBASE-LR	IEEE 802.3ae 10GBASE-LR	IEEE 802.3ae 10GBASE-SR
Form Factor		SFP+	SFP+	SFP+	SFP+	XFP
Connector		Duplex LC	Duplex LC	Duplex LC	Duplex LC	Duplex LC
	Single-Mode			9/125 μm	9/125 μm	
Fibre Type	Multi-Mode	50/125 μm (Cable) 62.5/125 μm (Fibre)	50/125 μm (Cable) 62.5/125 μm (Fibre)			50/125 μm (Cable) 62.5/125 μm (Fibre)
Wavelength		850 nm	850 nm	1310 nm	1310 nm	850 nm
Maximum Distance		300 m	300 m	10 km	10 km	300 m
Power		3.3 V	3.3 V	3.3 V	3.3 V	3.3/5 V
Hot-Pluggable						
<b>Digital Diagnostics M</b>	onitoring		•		•	

# **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 oneplus-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.



DPS-200
60 W
90 to 264 V AC
196 x 195 x 50 mm
DPS-800

COMPATIBLE SWITCHES	DPS-200	DPS-500	DPS-700
DGS-3120-24TC			
DGS-3120-48TC			
DGS-3120-24PC			
DGS-3120-48PC			
DGS-3120-24SC			
DGS-3420-28TC			
DGS-3420-28SC			
DGS-3420-28PC			
DGS-3420-52T			
DGS-3420-52P			•
DGS-3620-28TC		•	
DGS-3620-285C			
DGS-3620-28PC			
DGS-3620-52T			
DGS-3620-52P			•
DWS-3160-24TC			
DWS-3160-24PC			•
DWS-4026			

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



# Switch Cables

### **InfiniBand Cable Series**

These10G InfiniBand Twinaxial Cables are designed to support high-speed connections on 10 Gbps Ethernet devices when used with compatible D-Link products. With five models in the range, 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.



### 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 (c. 23 feet), and is ideal for highly costeffective networking connectivity between switches and servers 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

#### **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 fibre cables
- Lower power consumption than other cables like 10BASE-T or 10GBASE-CX4 means savings on energy usage and costs

	Les and		Cr.	<b>P</b>
MODEL	DEM-CB50	DEM-CB50CXP	DEM-CB50ICX	DEM-CB100
Cable Series Type	InfiniBand	CXP Direct Attach	InfiniBand	InfiniBand
Standard	IEEE802.3ak 10GBASE-CX4	SFP MSA	IEEE802.3ak 10GBASE-CX4	IEEE802.3ak 10GBASE-CX4
Device Rate	10 Gbps	120 Gbps	10 Gbps	10 Gbps
Connector Type	Screw-Type at Both Ends	CXP Cable Assembly	1 x Screw-Type / 1 x Latch	Screw-Type at Both Ends
Wire AWG	28	30	28	28
MinimumCable Bend Radius		49 mm		
Cable Length	50 cm	50 cm	50 cm	100 cm
Voltage	30 V AC	30 V AC	30 V AC	30 V AC
Current	0.5 A	0.5 A	0.5 A	0.5 A
Operating Temperature	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Connectivity	Physical Stacking Cable or Uplink Cable for DGS-3120 Series	Physical Stacking Cable for DXS-3600-325 Switch's DXS-3600-FM-Stack Module	Connecting Cable Between DGS-3120 Series and DMC-805X	Physical Stacking Cable or Uplink Cable for DGS-3120 Series



MODEL	DEM-CB100S	DEM-CB300	DEM-CB300S
Cable Series Type	SFP+ Direct Attach	InfiniBand	SFP+ Direct Attach
Standard	SFP MSA	IEEE802.3ak 10GBASE-CX4	SFP MSA
Device Rate	10 Gbps	10 Gbps	10 Gbps
Connector Type	SFP+ Cable Assembly	Screw-Type at Both Ends	SFP+ Cable Assembly
Wire AWG	30	28	30
MinimumCable Bend Radius	23.5 mm		23.5 mm
Cable Length	100 cm	300 cm	300 cm
Voltage	30 V AC	30 V AC	30 V AC
Current	0.5 A	0.5 A	0.5 A
Operating Temperature	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Connectivity	Recommended for use only with D-Link Switching Products	Physical Stacking Cable or Uplink Cable for DGS-3120 Series	Recommended for use D-Link Switching Prod

### **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



	DEM-CB300CX
	InfiniBand
	IEEE802.3ak 10GBASE-CX4
	10 Gbps
у	Latch-Type at Both Ends
	28
	300 cm
	30 V AC
	0.5 A
	-40°C to 85°C
e only with ducts	Physical Stacking Cable for Linking DGS-3400 Series with DEM-410CX

49

MODULES

Standard No. of Ports Connector

Accessories

Compatibility

CHASSIS AND ACCESSORIES

Descriptio

# Modules and Media Converters

A D-Link module provides enterprises with highly affordable, low-latency 10 Gigabit network connections using twin-axial copper cable. Significantly lower in cost than the fibre equivalent, this supports distances ranging up to five metres, depending on wire gauge. Media converters act as the link point to join copper and fibre connections together, in other words to connect 10/100/1000BASE-T copper to fibre (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 fibre network through the use of a D-Link Media Converter.

DWS-4026

BEM-ATOCK I AND I	
DEM-410CX	DEM-410X
IEEE 802.3ak 10 Gigabit Ethernet	IEEE 802.3ae 10 Gigabit Ethernet
1	1
CX4 (Copper)	XFP (Fibre)
DEM-CB100 Cable	DEM-421XT Transceiver
DGS-3426P DGS-3427 DGS-3450 DGS-3627 DGS-3627G DGS-3620	DGS-3426P DGS-3427 DGS-3450 DGS-3627 DGS-3627G DGS-3650

DWS-4026

					(at	
MEDIA CONVERTERS	DMC-300SC	DMC-515SC	DMC-530SC	DMC-700SC	DMC-810SC	DMC-805X
Standards	10/100BASE-TX 100BASE-TX	10/100BASE-TX 100BASE-TX	10/100BASE-TX 100BASE-TX	1000BASE-T 1000BASE-SX	100BASE-TX 1000BASE-LX	IEEE 802.3ak IEEE-802.3ae IEEE-802.3aq
Connectors	SC / RJ45	SC / RJ45	SC / RJ45	SC / RJ45	SC / RJ45	CX4/SFP+
Data Rate	100 Mbps	100 Mbps	100 Mbps	1 Gbps	1 Gbps	20 Gbps
Fibre Type	Multi-Mode	Single-Mode	Single-Mode	Multi-Mode	Single-Mode	Multi-Mode
Maximum Distance	2 km	15 km	30 km	550 m	10 km	80 km



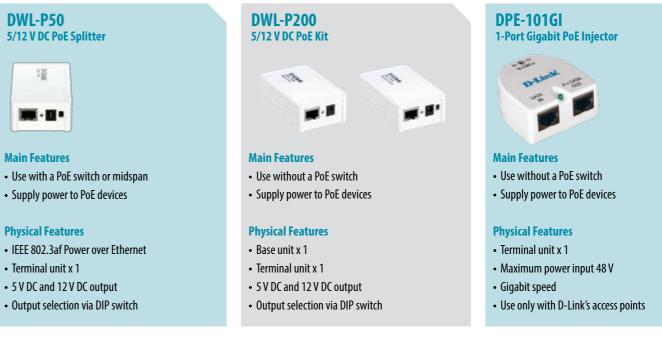
16-Slot Media Converter Chassis Redundant Power Supply with Internal Power Supply for DMC-1000

# 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.

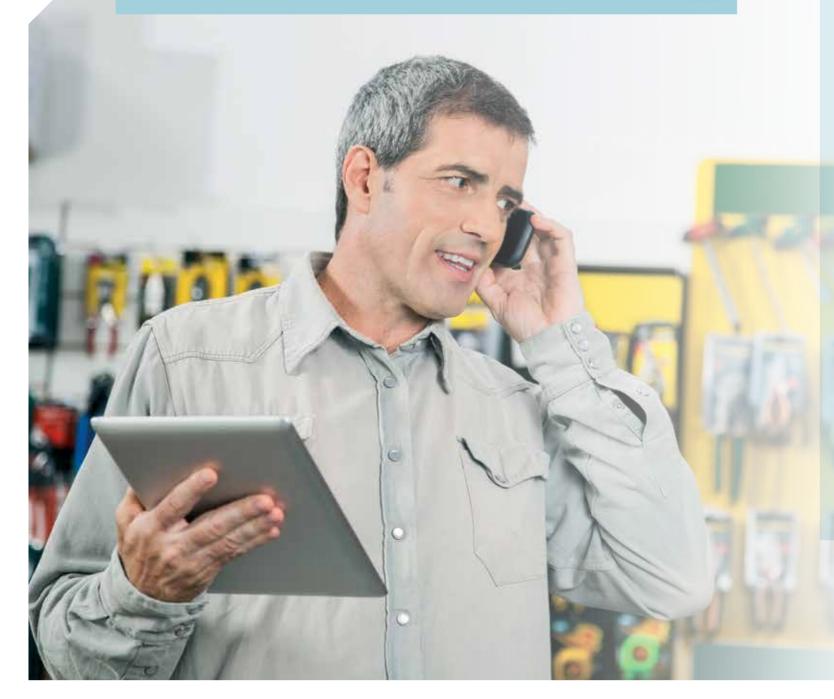
On the DWL-P50, the power comes from a PoE port on the switch, down the Ethernet cable, and then this adapter takes that power and provides it to a standard 5 V DC / 12 V DC outlet, into which the device which needs power is plugged. The DWL-P200 does exactly the same thing, but is designed for use where 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 Base Unit, then run an Ethernet cable (now carrying PoE power) from the Base Unit to the Terminal Unit, where the power is then 'converted' back for use by the device.

The DPE-101GI acts in a similar way again, but is designed to be used for PoE-equipped end-point devices but where the switch does not have PoE capability.



# Business Wireless

Wireless technology provides businesses with a flexible and costeffective 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/Managed Access Points, Single Band and Dual-Band Access Points and Antennas.



# Wireless AC

### The World's Fastest Wi-Fi Technology is Here!

Wireless AC is the next generation of Wi-Fi. Designed for much higher speeds, wider coverage and better sustained performance with a larger number of devices so that you get whole coverage, seamless performance on all devices and speeds that are up to four times faster!

#### **Next generation Wi-Fi for businesses**

Dubbed 'Wireless AC', '5G' or even 'Gigabit Wi-Fi', 802.11ac delivers up to four\* times the bandwidth of current Wireless N products, with yet more to come. With the ability to handle high-demand business applications, Wireless AC is revolutionising the way businesses utilise their wireless connection around the office.

Everything from sharing larger files, high-definition video conferencing to real-time or scheduled data backups has been made possible with 802.11ac, thanks primarily to the move to the 5 GHz radio spectrum where there is less noise and interference from competing technologies. Moreover, there's just a lot more space available in this band, allowing for up to 19 non-overlapping wireless channels compared to just three with 802.11n. Plus, those channels can be made wider to carry a lot more data, with 80 MHz and ultimately 160 MHz channels available in 802.11ac, compared to 20/40 MHz with 802.11n.

The way in which radio signals are transmitted is also changing. Out go omni-directional antennas, broadcasting every which way they can, in favour of so-called 'beamforming' technology, where the signal is directed at the device it is meant for, further enhancing that four-times boost in Wi-Fi bandwidth.

Beamforming also helps to improve range and reliability. The maximum distance supported by Wi-Fi is unchanged at 200-300m, but by concentrating and directing signals, 802.11ac eliminates dead spots, and at the same time, improve signal strength and reliability at all distances.

802.11ac makes it possible to support more devices on the network at the same time, automatically adjusting the wireless signals to provide an optimised connection for each one. Plus, by delivering more data in less time, 802.11ac helps extend battery life on mobile devices, enabling you to get more done between charges.

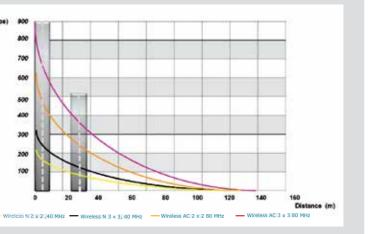
\* When compared with Wireless N300.







#### Why it's time to move from Wireless N to Wireless AC



#### Interference

Most mobile devices and wireless routers currently use the 2.4 GHz frequency which slows down the data transfer rate/overall packet flow.



#### Congestion

Congestion occurs when too many devices are accessing the network at the same time which slows the speed of the data transfer for everyone.



53

# 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.

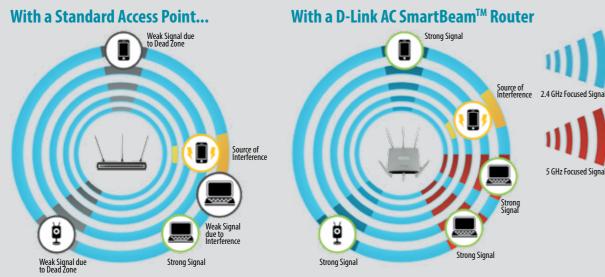






# AC SmartBeam<sup>™</sup>

• AC SmartBeam<sup>™</sup> is D-Link's optimised beamforming technology, which targets devices with weak reception by sending a focused signal to the device. This ensures that all the devices within the network get optimised wireless connectivity, no matter where they are.



# Range Overview

**Standalone Wireless Access Points** 



#### **Unified Wireless Access Points**



#### **Unified Solutions: Wireless Switches and Wireless Controller**



\*DWS-3160 Series supports 12 Access Points as standard and can be upgraded to 48 Access Points through a license upgrade DWC-1000 supports 6 Access Points as standard and can be upgraded to 24 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

5 GHz Focused Signal





55

## 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, 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 Dual-Band Access Point

- The latest 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-2553** Wireless N300 Dual-Band PoE Access Point



- Selectable dual-band connectivity for increased network capacity
- · Ideal for indoor deployments
- Periodical key change in WPA/WPA2-Personal
- Four products in one: access point, wireless client, WDS (Wireless Distribution System), WDS with AP

#### **DAP-2310** Wireless N Access Point

### Wireless AC

802.11n connectivity for increased network capacity Up to 300 Mbps wireless speeds

**Central WiFiManager** 

Compatible

- · Four products in one: access point, wireless client, WDS (Wireless Distribution System), WDS with AP
- Gigabit Ethernet port for the fastest wired speeds
- Multiple SSID for wireless network segmentation VLAN support
- WMM (Wireless Multi Media) to prioritise audio.
- video and voice applications
- Enhanced security with RADIUS support
- High-power radio design

#### **DAP-2590** Wireless N Dual-Band PoE Access Point



- Selectable dual-band connectivity for increased network capacity
- Wireless speeds of up to 300 Mbps in both 2.4 GHz and 5 GHz wireless bands
- Four products in one: access point, wireless client, WDS (Wireless Distribution System), WDS with AP
- Rugged metal, plenum-rated housing
- Enhanced network security features with NAP (Network Access Protection) support
- PoE support for one-cable installation

### dlinkigreen Energy Efficient Ethernet



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 (802.11g and 802.11n) band
- Up to 300 Mbps wireless speeds

**DAP-2360** 

0-1.00A

-----

**DAP-2690** 

- PoE support for convenient installation
- Allows network administrators to deploy a highly manageable and extremely robust 802.11n wireless network

**Wireless N Simultaneous Dual-Band PoE Outdoor Access Point** 

#### **Central WiFiManager** Compatible

- Simultaneous dual-band operation for high-performance wireless connections
- Wireless speeds of up to 300 Mbps in both 2.4 GHz and 5 GHz wireless bands.
- Load balancing with band steering to provide more stable and faster wireless connections
- Four products in one: access point, wireless client, WDS (Wireless Distribution System), WDS with AP
- Rugged metal, plenum-rated housing
- Enhanced network security features with NAP (Network Access Protection) support
- PoE support for one-cable installation

MODEL	DAP-1665	DAP-2310	DAP-2360	DAP-2553	DAP-2590	DAP-2690
WIRED STANDARDS						
EEE 802.3 10BASE-T	•	•	•	•	•	•
EEE 802.3u 100BASE-TX	•	•	•	•	•	•
EEE 802.3ab 1000BASE-T	•	•	•	•	•	•
WIRELESS STANDARDS						
EEE 802.11a						•
EEE 802.11g				•		•
EEE 802.11n		•	•	•	•	•
EEE 802.11ac	•					
Bandsteering Support						•
Simultaneous Dual-Band	•					•
PERATION MODES						
Access Point Client Mode	•	•		•	•	•
Bridge (WDS) Mode			•		•	
Bridge with Access Point Mode	•			•	•	•
ANTENNA FEATURES						
Number of Antennas	2	2	2	3	3	4
Gain	2 2 dBi for 2.4 GHz; 2 dBi for 5 GHz	2 2 dBi for 2.4 GHz	5 dBi for 2.4 GHz	3 3 dBi for 2.4 Ghz; 5 dBi for 5 Ghz	5 4 dBi for 2.4 GHz; 6 dBi for 5 GHz	4 4 dBi for 2.4 GHz; 6 dBi for 5 GHz
Detachable	•	•	•	•	•	•
Dipole Antenna						
AUTHENTICATION FEATURES						
54/128-Bit WEP	•	•	•	•	•	•
NPA/WPA2-PSK	•	•	•	•	•	•
NPA/WPA2-EAP	•	•	•	•	•	•
KIP/AES	•	•	•	•	•	•
802.1X User Authentication		•	•	•	•	•
SECURITY FEATURES						
MAC Address Filtering	•	•	•	•	•	•
SID Broadcast Disable	•	•	•	•	•	•
Rogue AP Detection		•	•	•	•	•
WLAN Partition	•	•	•	•	•	•
802.1Q VLAN		•	•	•	•	•
Multiple SSIDs for Network Segmentation		•	·	•	•	•
GROUPING FEATURES						
Load Balancing		•	•	•	•	•
Link Integrity			•	•	•	•
Jser Limit	•		•	•	•	•
QoS FEATURES						
WMM (Wi-Fi Multimedia)						•
NETWORKING FEATURES						
luto-Channel Scan	•	•	•	•	•	•
Auto-Power Adjustment						
MANAGEMENT FEATURES						
NMP			•			
)-View		•	•	•	•	•
AP Manager Utility		•	•	•	•	•
Configuration through Array		•	•	•	•	•
Telnet		•		•	•	•
SH		•	•	•	•	•
Central WiFiManager		•	•			•
central minimanager						
NSTALLATION FEATURES						
NSTALLATION FEATURES For Outdoor Usage 802.3af Power over Ethernet (PoE)						

## 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, 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.





**Dual-Band PoE Access Point** 



- 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-3410** Wireless N 5 GHz PoE Outdoor Access Point with PoE Pass-Through



- Increase network capacity by adding 5 GHz wireless connectivity for smartphones, notebooks or other portable devices
- Multiple operation modes, including access point, wireless distribution system (WDS), WDS with AP, repeater, wireless client, WISP client router and repeater
- Waterproof to IPX6 standard
- PoE pass-through capability
- Up to 300 Mbps wireless speed
- · Industry standard security and encryption

#### **DAP-2695** Wireless AC1750 Simultaneous **Dual-Band PoE Access Point**

Central WiFiManager Compatible Wireless AC

- Super-fast Wireless AC Performance
- Latest Wireless AC technology, fully 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

**Wireless N Simultaneous Dual-Band** 

Concurrent dual-band 802.11n connectivity

• Supports up to 16 SSIDs (8 per radio)

• Enterprise security and management

Internal and external RADIUS support

WDS, WDS with AP, wireless client

• 802.3at Power over Ethernet (PoE) support

• Multiple operation modes, including access point,

IP67-rated housing with built-in heater and sensor

**PoE Outdoor Access Point** 

**DAP-3690** 

- - Long-distance wireless networking with WDS and WISP

**DAP-3310** 

with PoE Pass-Through

Wireless N PoE Outdoor Access Point

Built to withstand harsh environments with

Allows for flexible installation and supplies

such as a video surveillance camera

additional power to another PoE-powered device

Multiple operation modes including access point,

WDS, WDS with AP, wireless client, wireless

repeater, WISP client router or WISP repeater

weatherproof IPX6 standard

Secure wireless connectivity with WAP/WPA2

**DAP-3662** Wireless AC1200 Concurrent Dual-Band **Outdoor PoE Access Point** 

> Central WiFiManager Compatible Wireless AC

- 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, repeater, wireless client and WDS/Bridge
- Wall- and pole-mounting hardware included 802.3af Power over Ethernet (PoE) support
- MODEL DAP-2660 DAP-2695 DAP-3310 WIRED STANDARD IEEE 802.3 10BASE-T . IEEE 802.3u 100BASE-TX . • IEEE 802.3ab 1000BASE-T . WIRELESS STANDARD IEEE 802.11a IEEE 802.11g IEEE 802.11n . . IEEE 802.11ac Simultaneous Dual-Band . **OPERATION MODES Access Point Client Mode** . . . Bridge (WDS) Mode • Bridge with AP Mode **ANTENNA FEATURES** Number of Antenna 4 6 1 Three x 4 dBi for 2.4 GHz Two x 3 dBi for 2 4 GHz 10 dBi for 2 Two x 4 dBi for 5 GHz Three x 6 dBi for 5 GHz Detachable **Dipole Antenna** Embedded Antenna . **AUTHENTICATION FEATURES** 64/128-Bit WEP . . . WPA/WPA2-PSK WPA/WPA2-FAP . TKIP/AES 802.1X User Authentication SECURITY FEATURES **MAC Address Filtering** . . . SSID Broadcast Disable **Rogue AP Detection** . . WLAN Partition 802.10 VLAN . . Multiple SSIDs for Network Segmentation **GROUPING FEATURE** Load Balancing . . Link Integrity User Limit . . **OoS FEATURES** WMM (WiFi Multimedia) . . **NETWORKING FEATURES** Auto-Channel Scan . . Auto-Power Adjustment MANAGEMENT FEATURE SNMP **D**-View AP Manager Utility **Configuration through Array** Telnet SSH Central WiFiManager **INSTALLATION FEATURES** For Outdoor Usage . 802.3af Power over Ethernet (PoE) 802.3at Power over Ethernet (PoE+) . **PoE Injector Included** PoE Pass-Through

Efficient Ethernet

	D-Link	<b>H</b>	52 
	DAP-3410	DAP-3690	DAP-3662
	•	•	•
	•	•	•
	•	•	•
	•	•	•
			•
		•	•
			•
	•	•	•
	1 15 dBi for 5 Ghz	4 5 dBi for 2.4 Ghz	4 Two x 6 dBi for 2.4 GHz
.4 GHz	15 dBi for 5 Ghz	7 dBi for 5 Ghz	Two x 6 dBi for 5 GHz
		•	
	•		
	•	•	•
	•	•	•
	•	•	•
	•	•	•
		•	
	•	•	•
	•	•	
	•	•	•
	•	•	•
	•	•	•
	•		•
		•	•
	•	•	•
	•		•
		•	•
	•	•	•
			•
	•	•	•
	٧		•
		•	
	•		

## 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 500 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.

#### **Kev 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 such as a smartphone, tablet or computer

#### **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

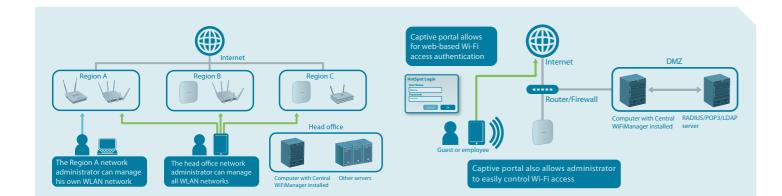
- Supports local DB, external RADIUS, LDAP, POP3 and Wi-Fi passcode authentication
- Supports user access control

#### **Auto Radio Frequency** (RF) Management

• Supports automatic channel and output power optimisation

#### **Bandwidth Optimisation**

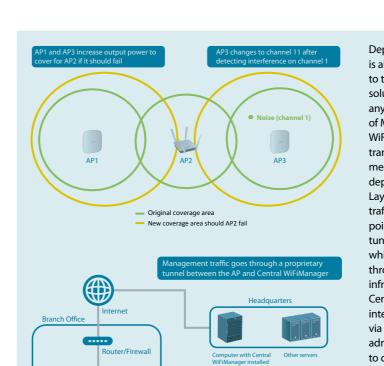
Optimises wireless bandwidth



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 it comes bundled with six of D-Link's APs and 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 guickly 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.



	11AC DUAL BAND			11N DUAL BAND	11N SINGLE BAND	
	Her.	8	-	Ker -	6	
MODEL	DAP-2695	DAP-2660	DAP-3662	DAP-2690	DAP-2360	DAP-2310
Indoor/Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Indoor
H/W Version	A1	A1	A1	B1	B1	B1
IEEE Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n	802.11b/g/n	802.11b/g/n
2.4 GHz Speed	450 Mbps	300 Mbps	300 Mbps	300 Mbps	300 Mbps	300 Mbps
5 GHz Speed	1300 Mbps	900 Mbps	900 Mbps	300 Mbps		
Number of SSIDs	16 (8 per radio)	16 (8 per radio)	16 (8 per radio)	16 (8 per radio)	8	8
Ethernet Interface	2 x Gigabit Ethernet	1 x Gigabit Ethernet	2 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet
PoE Standard	802.3at (PoE +)	802.3af (PoE)	802.3af (PoE)	802.3af (PoE)	802.3af (PoE)	
Max Tx Power	27.5 dBm	2.4 GHz: 28 dBm 5 GHz: 26 dBm	26 dBm	23 dBm	26 dBm	26 dBm
Antenna Type	External	Internal	Internal	External	External	External
Antenna Gain	2.4 GHz: 4 dBi 5 GHz: 6 dBi	2.4 GHz: 3 dBi 5 GHz: 4 dBi	2.4 GHz: 6 dBi 5 GHz: 6 dBi	2.4 GHz: 4 dBi 5 GHz: 6 dBi	2.4 GHz: 5 dBi	2.4 GHz: 2 dBi
Mounting Type	Wall/Desktop	Ceiling/Wall/Desktop	Wall/Pole	Wall/Desktop	Wall/Desktop	Wall/Desktop
Security Lock	•	•	•	•	•	•
Power Adapter	48 V / 0.5 A	12 V / 1A	48 V / 0.5 A	48 V / 0.5 A	12V/1A	12 V / 1 A
Maximum Power Consumption	18.2 W	11 W	12.5 W	10.67 W	7.9 W	6.5 W
PoE Kit in Package	•		•	•		

WLAN MANAGEMENT	
Maximum APs per Device (Controller)	5002
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

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 Window Server 2008/2012. 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 r

# 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
- Centralised firmware dispatch
- Auto-power adjustment
- Dynamic auto-channel selection
- Layer 2 Fast roaming
- Layer 3 Fast roaming
- Captive portal

#### **DWL-2600AP Unified Wireless N PoE Access Point**



- Wireless performance of up to 300 Mbps network throughput
- Self-configuring cluster enables easier provisioning
- Up to 16 virtual access points (VAP) may be created from a single unit
- Load balancing to optimise high network traffic volume and redundancy
- Supports the latest standards in Wi-Fi security

#### **DWL-6700AP**

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



- Concurrent dual-band works in 2.4 GHz and 5 GHz simultaneously
- 5 GHz directional high-gain antennas deliver extended coverage via WDS connections and 2.4 GHz omnidirectional antennas provide local Wi-Fi access
- An all-in-one plastic enclosure with pole-mount design simplifies outdoor deployment and a remote reset button via a PoE injector for hasslefree reboots

#### Managed and Standalone Mode

- WEP/WPA/WPA2 security
- Rogue AP detection
- Station isolation
- MAC address filtering
- AP load balancing set-up
- Wi-Fi Multimedia (WMM)
- SpectraLink voice priority
- Local storage of configuration

#### **DWL-3600AP Unified Wireless N PoE Access Point**

#### • Expand a Wi-Fi network to cover a larger area

- Load balancing to optimise high network traffic volume and redundancy
- 802.11n connectivity for increased network capacity
- Supports the latest standards in Wi-Fi security to identify and track assets equipped with an Aeroscout Radio Frequency ID (RFID) tag.

#### **DWL-8600AP Unified Wireless N Simultaneous Dual-Band PoE Access Point**



- Green technology for advanced power saving
- Supports advanced wireless functions
- Flexible dual-band wireless connectivity
- Optimal wireless performance
- Total security and Quality of Service(QoS)

### Energy Efficient Ethernet • Local storage of configuration

**Standalone Mode** 

dlinkigreen

DE

**DWL-6600AP Unified Wireless N Simultaneous Dual-Band PoE Access Point** 



- Concurrent dual-band works in 2.4 GHz and 5 GHz simultaneously
- Flexible deployment stand-alone or centrally managed by a wireless controller
- Wireless performance of up to 300 Mbps network throughput in each band
- Self-configuring cluster enables easier provisioning
- Automatic load-balancing among neighbouring access points

#### **DWL-8610AP** Unified Wireless AC1750 Dual-Band Access Point



- 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
- AC SmartBeam<sup>™</sup> technology greatly improves wireless performance by focusing wireless signals, providing wider wireless coverage without the need for additional access points.

			0			3
MODEL	DWL-2600AP	DWL-3600AP	DWL-6600AP	DWL-6700AP	DWL-8600AP	DWL-8610AP
WIRELESS STANDARDS						
IEEE 802.11a			•	•	•	•
IEEE 802.11g IEEE 802.11n	•	•	•	•	•	•
IEEE 802.11ac	•	•	•	•	•	•
Simultaneous Dual-Band						•
WIRED STANDARDS						
IEEE 802.3 10BASE-T	•	•	•	•	•	•
IEEE 802.3u 100BASE-TX	•	•	•	•	•	•
IEEE 802.3ab 1000BASE-T		•	•	•	•	•
OPERATION MODES						
AP Client Mode						
Bridge (WDS) Mode Bridge with AP Mode	•	•	•	•	•	•
	-	-	-		-	
ANTENNA FEATURES			Lateral and			
No. of Antennas	Internal	Internal	Internal 5 dBi for 2.4 Ghz;	Internal 8 dBi for 2.4 Ghz;	4 4 dBi for 2.4 Ghz ;	Internal 5 dBi for 2.4 Ghz;
Gain	3 dBi for 2.4 GHz	4.7 dBi for 2.4 GHz	6 dBi for 5 Ghz	3 dBi for 5 Ghz	6 dBi for 5 Ghz	6.5 dBi for 5 Ghz
Detachable			Connectors for External Antennas			
Dipole Antenna	•	•	•	•	•	•
Embedded Antenna	•	•	•	•		•
AUTHENTICATION FEATURES						
64/128-Bit WEP		•			•	•
WPA/WPA2-PSK	•	•	•	•	•	•
WPA/WPA2-EAP	•	•	•	•	•	•
TKIP/AES 802.1X User Authentication	•	•	•	•	•	•
	•		·			
SECURITY FEATURES						
MAC Address Filtering SSID Broadcast Disable	•	•	•	•	•	•
Rogue AP Detection	•				•	•
WLAN Partition	•	•	•	•	•	•
802.1Q VLAN	•	•	•	•	•	•
Multiple SSIDs for Network Segmentation						
-						
GROUPING FEATURES						
Load Balancing Link Integrity	•	•	•	•	•	•
User Limit	•	•	•	•	•	•
QoS FEATURES						
WMM (WiFi Multimedia)						
NETWORK FEATURES						
Auto-Channel Scan Auto-Power Adjustment	•	•	•	•	•	•
MANAGEMENT FEATURES						
SNMP						
D-View		•	•	•	•	•
AP Manager Utility	•	•	•	•	•	•
Configuration through Array	•	•	•	•	•	•
Telnet SSH	•	•	•	•	•	•
Management via Wireless Controller/						
Unified Switch	•	•	•	•	•	•
Supported D-Link Wireless Controller/ Unified Switch models	DWC-1000 DWC-2000 DWS-3160 DWS-4026	DWC-1000 DWC-2000 DWS-3160 DWS-4026	DWC-1000 DWC-2000 DWS-3160 DWS-4026	DWC-1000 DWC-2000 DWS-3160 DWS-4026	DWC-1000 DWC-2000 DWL-3024/3024L DWS-3160, DWS-4026	DWC-1000 DWC-2000 DWS-3160 DWS-4026
INSTALLATION FEATURES						
Indoor/Outdoor	Indoor	Indoor	Indoor	Outdoor (IP-55 rated)	Indoor	Indoor
Plenum rated (UL-2043)		•	Optional		•	•
802.3af Power over Ethernet (PoE)	•	•	•		•	•
PoE Injector Included					•	



# Unified Wired/Wireless Access System

### **DWS-3160 Series**

The DWS-3160 Unified Layer 2+ Gigabit Wired/Wireless Switch is the ideal mobility solution for businesses, since it empowers administrators to exercise total control over their entire wireless network(s) by centralising all aspects of provisioning and management. Able to manage up to 48 D-Link unified access points by itself and up to 192 in a switch cluster, the DWS-3160 models can be configured to act either as a wireless controller in the core network, or as a Layer 2+ Gigabit Switch at the edge, enabling it to be seamlessly integrated into any existing network infrastructure.



#### **Principle Product Features**

#### DWS-3160-24TC

- 10/100/1000BASE-T ports x 20
- Combo 10/100/1000BASE-T/SFP ports x 4
- Console (RJ45) port x 1
- Management of up to 12 access points per switch
- Upgrade licenses for up to 48 access points per switch
- Up to 192 access points per switch cluster
- Automatic access point transmit output power adjustment

#### DWS-3160-24PC

- 10/100/1000BASE-T PoE ports x 20
- Combo 10/100/1000BASE-T/SFP ports x 4
- Console (RJ45) port x 1
- 802.3af (PoE) and 802.3at (PoE) + support
- 370 W PoE power budget (760 W with DPS-700 RPS)
- Management of up to 12 access points
- per switch
- Upgrade licenses for up to 48 access points per switch
- Up to 192 access points per switch cluster Automatic access point transmit output
- power adjustment

#### **Optional Accessories**

DWS-316024TCAP12-LIC DWS-3160-24TC Additional 12 Access Points Support License DWS-316024TCAP24-LIC DWS-3160-24TC Additional 24 Access Points Support License DWS-316024PCAP12-LIC DWS-3160-24PC Additional 12 Access Points Support License DWS-316024TCAP24-LIC DWS-3160-24PC Additional 24 Access Points Support License

- Optional Redundant Power Supplies

   DPS-200
   60 W Redundant Power Supply for DWS-3160-24TC
- DPS-700 589 W Redundant Power Supply For DWS-3160-24PC

#### DEM-210 100BASE-FX, Single-Mode, 15 km 100BASE-FX, Multi-Mode, 2 km DFM-211 1000BASE-LX, Single-Mode, 10 km DFM-310GT 1000BASE-LX, Multi-Mode, 550 m DEM-311GT DEM-312GT2 1000BASE-LX, Multi-Mode, 2 km 1000BASE-LX, Single-Mode, 50 km DEM-314GT

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

#### **Key Series Features**

- Management of up to 12 access points per switch
- Upgrade licenses for up to 48 access points per switch
- Up to 192 access points per
- switch cluster Automatic access point RF
- channel adjustment · Automatic access point transmit
- output power adjustment
- Centralised access point firmware upgrade

MODEL		DWS-3160-24TC
Interfaces	10/100/1000BASE-T (RJ45)	20
interlaces	Combo 1000BASE-T/SFP	4
	Switching Capacity	48 Gbps
	Maximum Forwarding Rate	35.71 Mpps
General Features	Forwarding Mode	Store-and-Forward
	Packet Buffer Memory	2 MB
	MTBF Console Port	561,829 Hours RJ45
WLAN Management Capabil		Centralised
Roaming	, y	Fast Roaming; Intra-Switch/Inter-Switch Roaming; Ir
Access Control and Bandwid	th Management	Up to 32 SSID per AP (16 SSID per Frequency Band) AP Load Balancing based on the number of users or A Flexible Mapping Schemes
Managed Access Point		DWL-2600AP, DWL-3600AP, DWL-6600AP, DWL-8600
Access Point Management		AP Auto-Discovery Remote AP Reboot AP Monitoring: List Managed AP, Rogue AP, Authenti Client Monitoring: List Clients Associated with each A Ad-Hoc Client Monitoring AP Authentication Supporting Local Database and Ex Centralised RF/Security Policy Management Automatic AP RF Channel Adjustment Automatic AP Transmit Output Power Adjustment Centralised Firmware Upgrade
WLAN Security		WPA Personal/Enterprise WPA2 Personal/Enterprise 64/128/152-Bit WEP Data Encryption MAC Authentication Station Isolation Wireless Station and AP Monitoring based on RF Cha Rogue AP and Client Detection and Mitigation Captive Portal Security Profile 802.1X Support Guest VLAN
Layer 2 Features		MAC Address Table: 16,000 IGMP Snooping; MLD Snooping 802.1D/w/s SpanningTree; 802.3ad Link Aggregatior Port Mirroring (One-to-One and Many-to-One) Jumbo Frame Size: up to 13 KB
Virtual LAN (VLAN)		Static VLAN Groups: 3,965 802.1q VLAN Tagging; 802.1v Subnet-basedVLAN; MAC-basedVLAN GVRP; Double VLAN; VoiceVLAN
Layer 3 Features		IPv4/v6 Static Route RoutingTable Size: 512 Static Routes VRRP; ARP Proxy
Quality of Service (QoS)		Voice VLAN Wireless Multimedia (WMM) 802.1p Priority Queues CoS-based QoS Per-Flow Bandwidth Control Per-Port Traffic Shaping Minimum Bandwidth Guarantee
Access Control List (ACL)		ACL Based on: Switch Port, MAC Address, 802.1p Que
LAN Security		RADIUS Authentication Management Access TACACS+ Authentication for Management Access SSH & SSL Support MAC Filtering; 802.1x Port-Based Access Control & Gu Denial of Service Protection Dynamic ARP Inspection Protected Port Broadcast Storm Control Access Control List
Management Methods		Management of up to 12 Access Points per Switch Upgrade Licenses for up to 48 Access Points per Switc Up to 192 APs per Switch Cluster Single IP Management (SIM) SSH; SSL; SNMP v1, 2c, 3; sFlow; Dual Image Support Web GUI; Command Line Interface
	Dimension	440 x 210 x 44 mm
	Weight	2.55 kg
	Maximum Power Consumption	37.7 W
Physical and Environment	PoE	
	PoE Power Budget	
	Redundant Power Supply	DPS-200
	Operating Temperature	0°C to 50°C
	Operating Humidity	10% to 90% RH Non-Condensing
Certification	EMI-EMC	FCC Class A, CE; ICES-003, C-Tick, VCCI
	Safety	UL/cUL; CB



	DWS-3160-24PC
	282,541 Hours
ing: Intra Cubnot/Ir	nter-Subnet Roaming
nd)	
rs or AP utilisation	
8600AP, DWL-8610	AP
hentication Failed A each Managed AP	lb.
nd External RADIUS	Server
nt	
F Channel, MAC Add	Iress SSID Time
enamely miterial	
jation; 802.1ab LLD	٢
p Queues, VLAN, Eth	ner Type, DSCP, IP Address, Protocol Type, TCP/UDP Port
SS	
l & Guest VLAN	
ch	
Switch	
pport	
	440 x 310 x 44 mm
	5.24 kg
	467 W (Full PoE Load) 802.3af PoE
	30 W per Port; 370 W Total (740 W with DPS-700)
	DPS-700

65

# Unified Wired/Wireless Access System

### **DWS-4026**

The DWS-4026 is D-Link's next-generation Unified Wired/Wireless Gigabit Switch with an array of advanced features and 802.11n support. With the ability to manage up to 64 unified wireless access points by itself and up to 256 unified wireless access points in a switch cluster, the DWS-4026 is a full-featured and cost-effective mobility solution for midto-large enterprises and service providers. Extremely versatile and flexible, the DWS-4026 can be deployed as a wireless controller in the core network or as a Layer 2+ PoE Gigabit switch at the edge, depending on the requirement. By centralising WLAN configuration and management functions, the DWS-4026 enables network administrators to have the control, security, redundancy, and reliability needed to scale and manage their wireless networks easily and efficiently.



#### **Principle Product Features**

#### **DWS-4026**

- 10/100/1000BASE-T PoE ports x 20
- Combo 10/100/1000BASE-T/SFP ports x 4
- 802.3af (PoE) support (24 Ports)
- 10 Gigabit expansion slots x 2
- Redundant power supply support
- Up to 256 APs per cluster/peer group

#### **Optional Accessories**

DEM-410X 1-Port 10 Gigabit XFP Module DEM-410CX 1-Port 10 Gigabit CX4 Module

**10 Gigabit Ethernet XFP Tra** DEM-421XT 10GBASE-SR, MMF: 300m

Gigabit Eth et SFP Ti DEM-310GT 1000BASE-LX, SMF/MMF; 10km/2km DFM-311GT 1000BASE-SX\_MME: 550m DEM-312GT2 1000BASE-SX, MMF: 2km DEM-314GT 1000BASE-LH, SMF: 50km

DV-700 D-View 7 Network Management System

#### Wireless Management

- L2/L3 fast roaming
- Intra-switch/inter-switch roaming Centralised security policy/AP/
- client
- Management and monitoring
- Adaptive wireless Automatic RF channel adjustment
- Automatic AP transmit output
- power adjustment AP-AP Tunnel
- AP load balancing
- AP auto-discovery and firmware
- dispatch AP authentication
- RF self-healing
- Auto-VoIP
- Wi-Fi multimedia (WMM)
- SpectraLink Voice Priority (SVP)
- Remote AP reboot
- Visualised AP management tool
- Wireless Intrusion Detection and Prevention System (WIDS/WIPS)
- Rogue AP/client detection and
- mitigation • WPA/WPA2 Personal/Enterprise
- Captive portal
- Station isolation

#### Wired Management

- Internet Group Management Protocol (IGMP) snooping
- Link Layer Discovery Protocol (LLDP)
- LLDP-Media Endpoint Discovery (LLDP-MED)
- Double VLAN (Q-in-Q)
- Selective Q-in-Q
- Subnet-based VLAN
- IPv4 static route
- Routing Information Protocol (RIP)
- Virtual Router Redundancy Protocol (VRRP)
- Quality of Service (QoS)
- Traffic shaping
- Bandwidth control
- Access Control List (ACL)
- 802.1X Port-based Access Control

- Guest VLAN
- Broadcast Storm Control

MODEL		DWS-4026
IEEE LAN Standard		802.3; 802.3u; 802.3z; 802.3ab; 802.3ae; 802.3af
	10/100/1000BASE-T (RJ45)	20 (PoE)
	Combo 1000BASE-T/SFP	4
Interfaces	10 Gigabit Slot XFP Module	2 DEM-410X
	CX4 Module	DEM-410X DEM-410CX
Ctackability		Via CX4/XFP Module; Duplex Chain/Ring Topology; Bi-
Stackability	Physical Stack	Up to 40 Gbps (Full Duplex); Up to 12 Units per Stack
	Switch Capacity	88 Gbps 65.47 Mpps (Maximum)
	Forwarding Rate Forwarding Mode	Store-and-Forward
General Features	Buffer Memory	750 KB
	MTBF	185,540 Hours
	Console Port	Female RS-232 DB-9 Console for Out-of-Band Configu
WLAN Management Capabi	iity	Max. 64 APs per Switch; Max. 256 APs per Cluster; Max
Roaming		Fast Roaming (Wireless Adapter needs to support too)
Access Control and Bandwid	ith Management	Max. 32 SSID per AP (16 SSID per RF Frequency Band);
Managed Access Point		DWL-2600AP, DWL-3600AP, DWL-6600AP, DWL-8600A
Access Point Management		AP Auto-Discovery Remote AP Reboot AP Monitoring: List Managed AP, Authentication Faile Ad-Hoc Clients Monitoring Client Monitoring: List Clients Associated with Each M AP Authentication Supporting Local Database and Ext Centralised RF/Security Policy Management Visualised AP Management Tool (Support up to 16 JPC Unified AP Support (DWL-8600AP): Managed/Standal
WLAN Security		Wireless Intrusion Detection and Prevention System ( Rogue AP Mitigation 64/128-Bit WEP Data Encryption Rogue and Valid AP Classification Based on MAC Addre WPA Personal/Enterprise WPA2 Personal/Enterprise Wireless Station and AP Monitoring on RF Channel, M. Captive Portal Station Isolation Encryption Type Support: WEP, WPA, Dynamic WEP, TK MAC Authentication
Layer 2 Features		MAC Address Table: 8000 IGMP Snooping: 1000 Multicast Groups MLD Snooping 802.1D STP, 802.1s Rapid STP, 802.1w Multiple STP 802.3ad Link Aggregation: Max. 32 Groups, Max. 8 Po Jumbo Frame: Max. 9 KBytes; 802.1ab Link Layer Disc Port Mirroring: One-to-One, Many-to-One Flow Control: 802.3x in Full Duplex, Back Pressure in H
Virtual LAN (VLAN)		802.1Q Tagged VLAN 802.1v Protocol VLAN Static VLAN Groups: 3,965 Subnet-Based VLAN GARP VLAN Registration Protocol (GVRP) MAC-Based VLAN; Double VLAN; Voice VLAN
Layer 3 Features		IPv4 Static Route; Routing Table Size: Max. 128 Static I Floating Static Route; Proxy Address Resolution Protoc Virtual Router Redundancy Protocol (VRRP); Routing I
Quality of Service (QoS)		802.1p Priority Queues (Max. 8 Queues per Port) Auto-VolP; Minimum Bandwidth Guarantee per Queu Traffic Shaping per Port; Per-Flow Bandwidth Control CoS Based on: Switch Port, VLAN, DSCP, TCP/UDP Port,
Access Control List (ACL)		ACL Based on: Switch Port, MAC Address, 802.1p Que
LAN Security		RADIUS and TACACS+ Authentication for Managemer Secure Shell (SSH) v1/v2; Secure Sockets Layer (SSL) v Transport Layer Security (TLS) v1; MAC Filtering; Deni Port Security: 20 MAC per Port, Port Violation Notifica Broadcast Storm Control in Granularity of 10% of Link 3; Web Recard (LII: with Curtaring: PADIUS Accounting
Management Methods		Web-Based GUI; Switch Clustering; RADIUS Accountin TFTP Client; Telnet Server: Max. 5 Sessions; sFlow BootP/DHCP Client; DHCP Server; DHCP Relay; Dual In Port Description; Multiple Configuration Files; Dual In Simple Network Management Protocol (SNMP) v1/v2
	Dimension	19in; 1U Rack-Mountable; 440 x 389 x 44 mm (W x D
	Weight Device leave	6 Kg
	Power Input Maximum Power Consumption	Input: 100-240 V AC, 50/60Hz; Internal Universal Powers 525 W (With All PoE Ports in Operation)
Physical and	PoE	S25 W (With All POE Ports in Operation) 802.3af (PoE)
Environment	PoE Power Budget	15.4 W per Port; 370 W Total
	RPS	DPS-700
	Operating Temperature	0°C to 40°C
	Operating Humidity EMI-EMC	10% to 90% RH Non-Condensing FCC Class A; CE; VCCI; C-Tick; ICES-003; EN 60601 1-2
Certification	EMI-EMC Safety	FCC Class A; CE; VCCI; C-TICK; ICES-003; EN 606011-2



; Bi-Directional Redundant Stacking Topology ack

figuration

: Max. 2048 Wireless Users (1024 Tunneled, 2048 Non-Tunneled)

too); Intra-Switch / Inter-Switch Roaming; Intra-Subnet / Inter-Subnet Roaming; AP-AP-Tunnel

and); AP Load Balancing Based on the number of users or utilisation per AP 500AP, DWL-8610AP

ailed AP, Roque AP

h Managed AP d External RADIUS Server

6 JPG Files) ndalone Mode em (WIDS)

ddress

el, MAC Address, SSID, Time

P, TKIP, AES-CCMP, EAP-FAST, EAP-TLS, EAP-TTLS, EAP-MD5, PEAP-GTC, PEAP-MS-CHAPv2, PEAP-TLS

8 Ports per Group Discovery Protocol (LLDP): LLDP-MED

in Half Duplex, Head-of-Line Blocking Prevention

atic Routes rotocol (ARP) ting Information Protocol (RIP) v1/v2 lieue ntrol Port, TOS, Dest/Source MAC Address, Dest/Source IP Address Queues, VLAN, Ether Type, DSCP, IP Address, Protocol Type, TCP/UDP Port ement Access SL) v3 Denial of Service Protection; Dynamic ARP Inspection (DAI) fication; 802.1X Port-Based Access Control and Guest VLAN ink Speed; DHCP Snooping; Protected Port; DHCP Filtering nting; Command Line Interface (CLI); Telnet Client al Images al Image Services 1/v2c/v3; Remote Monitoring (RMON) v1; Simple Network Time Protocol (SNTP); System Log x D x H) Power Supply

# 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 six wireless access points (upgradable to 24) and a maximum of 96 wireless access points in a controller cluster, the DWC-1000 is a costeffective 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 and up to a maximum of 1,024 wireless access points in a controller cluster, so is suitable for medium- to large-scale deployments. It also features automanaged 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 option (WAN) ports x 2
- USB 2.0 ports x 2
- Manage up to 24 access points per cluster
- Upgrade to 96 access points per cluster

#### **DWC-2000**

- 10/100/1000BASE-T LAN ports x 4
- Combo 10/100/1000BASE-T/SFP ports x 4
- USB 2.0 ports x 2
- Manage up to 64 access points
- Upgradable to 256 access points
- Manage up to a maximum of 1,024 access points in a controller cluster

#### **Optional Accessories**

DWC-1000-VPN-LIC DWC-1000 Additional Six Access Points Support License

DWC-1000-6AP-LIC DWC-1000 VPN Security 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 DV-700 D-View 7 Network Management System

			····· ····	
MODEL			DWC-1000	DWC-2000
Interfaces	Ethernet USB 2.0 Ports	10/100/1000BASE-T Option (WAN) Ports 10/100/1000BASE-T LAN Ports Combo 10/100/1000BASE-T/SFP Ports	2 <sup>1</sup> 4 2	4 2
	RJ45 Console Port		•	
Capacity and Performance	Maximum Access I Maximum Access I Concurrent Captive Dedicated IPSec VI Dedicated PPTP/ L	2TP VPN Tunnels <sup>3</sup>	6 / 24 <sup>2</sup> 24 / 96 <sup>2</sup> 124 / 400 70 25	64 / 256 <sup>2</sup> 256 / 1024 <sup>2</sup> 3072
	Dedicated SSL VPN			
	Compatible Manage AP Discovery & Con		DWL-2600AP, DWL-3600AP, DWL-6600AP, DWL-8600AP, DWL-8610AP Layer-2 and Layer-3	DWL-2600AP, DWL-3600AP, DWL-6600AP, DWL-8600AP, DWL-8610AP Layer-2 and Layer-3
Access Point Management	AP Monitoring	an of	Managed AP Rogue AP Authentication Fail AP Standalone AP Authenticated Client	Managed AP Rogue AP Authentication Fail AP Standalone AP Authenticated Client
	Client Monitoring		Rogue Client Authentication Fail Client Ad-Hoc Client	Rogue Client Authentication Fail Client Ad-Hoc Client
		urity Policy Management	•	•
Roaming	Fast Roaming	nter-Controller Roaming	•	·
Koaming		er-Subnet Roaming		•
	Wireless Security		WEP Dynamic WEP WPA Personal/ Enterprise WPA2 Personal/ Enterprise Rogue and Valid AP Classification	WEP Dynamic WEP WPA Personal/ Enterprise WPA2 Personal/ Enterprise Rogue and Valid AP Classification
Security	Wireless Instruction	n Detection & Prevention System (WIDS)	Rogue AP Mitigation	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	Captive Portal
	VLAN Group		MAC Authentication 255 Static	MAC Authentication 255 Static
		ing		·
VLAN	802.1q VLAN Tagging Subnet-Based VLAN		•	
	Port-Based VLAN	1		
	Policy		Each Feature Supports 100 Rules Supports up to 600 Firewall Rules	
	Dynamic Route		RIPv1, RIPv2	
Firewall System <sup>3</sup>	Dynamic DNS		•	
	NAT, PAT		•	
	Web Content Filter	ing	Static URL Keywords	
Naturalia al	Route Failover		•	
Networking <sup>3</sup>	Outbound Load Ba	lancing	•	
	Encryption Metho		DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL	
	IPSec NAT Traversa		•	
Virtual Private	Dead Peer Detection		•	
Network (VPN) <sup>3</sup>		ecurity Payload (ESP)	•	
	IP Authentication		•	
	VPN Tunnel Keep A	live	•	
CI Vistual Drivet	Hub and Spoke	thods	DES 2DES AES	
SSL Virtual Private Network (SSL VPN)³	SSL Encryption Me SSL Message Integ		DES, 3DES, AES MD5, SHA1	
ACCIVOR (SSE VEN)	Web-Based User In		MUD, SHAT HTTP	HTTP, HTTPS
System Management	Command Line Int		•	•
system management	SNMP		• v1, v2c, v3	• v1, v2c, v3
	Power Supply		v1, v2c, v3 100-240 V AC, 50-60 Hz Internal	100-240 V AC, 50-60 Hz Internal
	Maximum Power (	onsumption	19.3 W	26.95 W
	Dimension	onsumption	19.5 W 180 x 280 x 44 mm	26.95 W 440 x 310 x 44 mm
Physical & Environment	Operating Tempera	aturo	0°C to 40°C	0°C to 40°C
Physical & Environment				
	Operating Humidi	y	5% to 95% RH Non-Condensing	5% to 95% RH Non-Condensing
	EMI		FCC Class B, CE Class B, VCCI, C-Tick, IC	FCC Class A, CE Class A, C-Tick, IC

<sup>1</sup>The first port is enabled by default. The second port is enabled by purchasing the DWC-1000-VPN-LIC license The number of managed APs can be increased through purchase of license upgrades. Only available in groups of six licenses per upgrade <sup>3</sup>Features enabled through purchase of the VPN/Router/Firewall license upgrade



#### **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
- Support for up to 64 access points; upgradeable to up to 256 access points
- 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 for extra VPN and firewall functionality
- Easy-to-use web interface and rd configuration
- file and printer
- rity with captive DIUS support

	straightforward
	<ul> <li>USB ports for fil sharing</li> </ul>
	<ul> <li>Enhanced secur portal and RAD</li> </ul>
	portal and KAI

# Antennas Cables

### **ANT Series**

	0	
ACCESSORIES	ANT24-CB03N	ANT24-CB09N
Cable Type	HDF-400	HDF-400
Length	3 m	9 m
Cable Loss (dB)	1 dB	3 dB
Connection Type	N-Male; N-Female	N-Male; N-Female
Use With	Outdoor Antennas	Outdoor Antennas

## 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 three USB plug-and-play 'dongles', and a PCI hard-wired adapter for PCs, you can enjoy a transformed wireless Internet connection using the fastest wireless technology available today.

#### **DWA-182**

Wireless AC1200 Dual-Band USB Adapter



The DWA-182 provides ultra-fast Wireless AC speeds, and with dualband performance up to 300 Mbps (2.4 GHz) or a whopping 867 Mbps on the 5 GHz band. Perfect for smooth HD video streaming or Skype<sup>™</sup> calls (either in the office or on the move), this wireless adapter is easy to set-up, easy to use and offers extended Wi-Fi coverage with fewer wireless deadspots.



#### DWA-172

Wireless AC600 Dual-Band High-Gain USB Adapterr

Whether you're at home using a desktop computer or out and about with a notebook, the DWA-172 Wireless AC600 Dual-Band High-Gain USB Adapter's sleek design is perfect for mobility and convenience, so that you can take advantage of Wireless AC's super-fast speed wherever you are. Up to 300 Mbps (2.4 GHz) or a whopping 867 Mbps on the 5 GHz band makes this a stand-out mobile wireless companion.

Without B

Wireless AC

	D	
MODEL	DWA-182	DWA-171
Wireless Standards	IEEE 802.11ac/n/g/b/a	IEEE 802.11a
Wireless Speed	300 Mbps 2.4 GHz 867 Mbps 5 GHz	433 Mbps 5 150 Mbps 2.
WPS One-Button Connection		•
USB Type / PCI Card	USB 3.0	USB 2.0
Security	WPA & WPA2	WPA & WPA
Antenna Type	Integrated Antenna	Integrated A
Dimensions	97.3 x 29.1 x 13.5 mm	31.7 x 18.8 x
Weight	20.5 g	3.9 g

#### DWA-171 Wireless AC600 Dual-Band Nano USB Adapter



With its integrated dual-band technology, this pocket-sized marvel provides up to 150 Mbps over the 2.4 GHz band or up to 433 Mbps over the less-congested 5 GHz band, so you'll have reduced Wi-Fi interference to maximised throughput for faster video streaming, VoIP calls or general data transfer, whether that's moving files or accessing the Internet. WPS one-button set-up makes this a gift.



Wireless AC

#### DWA-582 Wireless AC1200 Dual-Band PCI Express Adapter



The DWA-582 Wireless AC1200 Dual-Band PCI Express Adapter connects your desktop computer to a high-speed network and provides a blazingfast Wireless AC connection with superior reception. Once connected, you can access your network's high-speed Internet connection while also getting secure access to shared photos, files, music, video, printers and storage.



Wireless AC



## **VPN Security Routers**

### **DSR Series**

Every day, businesses face potential security breaches from every direction to their network: virus attacks, file sharing, messaging abuse, spyware and many others. Remote workers can unintentionally provide hostile threats with back-door access to your business. With such a diversity of threat, gone are the days when a simple, protective firewall was enough. And managing a host of different remedies is inefficient and difficult.

D-Link's VPN Security 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 VPN Security Routers are, essentially, all-in-one gateway devices providing outstanding performance and rich functionalities, including IEE 802.11n, secure wireless access, 3G 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.



**DSR-250N** 

• 10/100/1000BASE-T

• 10/100/1000BASE-T

(WAN) port x 1

(LAN) ports x 8

LAN (2.4 GHz)

USB 2.0 port x 1

(detachable)

• 2dBi dipole antennas x 2



### **Principle Product Features**

DCD 4	CON
DSR-1	150M

- 10/100BASE-TX (WAN)
- port x 1
- 10/100BASE-TX (LAN)
- ports x 8 • IEEE 802.11b/g/n wireless
- LAN (2.4 GHz)
- USB 2.0 port x 1
- 2dBi antennas x 2
- (internal)
- D-Link Green<sup>™</sup> technology D-Link Green<sup>™</sup> technology

#### **DSR-500N**

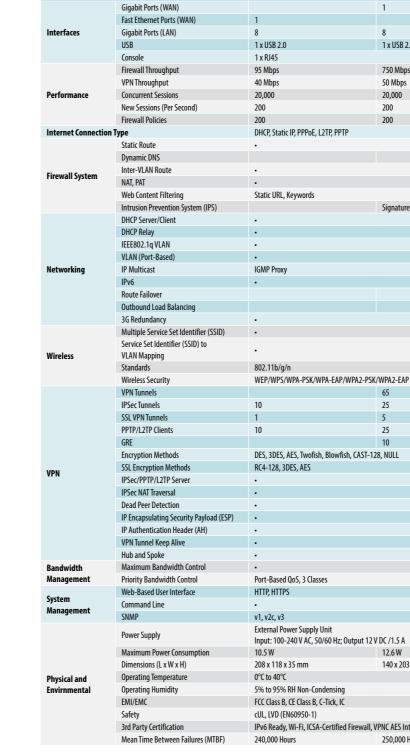
- (WAN) ports x 2 • 10/100/1000BASE-T
- IEEE 802.11b/g/n wireless • IEEE 802.11b/g/n wireless
  - LAN (2.4 GHz)
  - 2dBi dipole antennas x 3
  - 3G support
  - D-Link Green<sup>™</sup> technology
    - D-Link Green<sup>™</sup> technology

#### **Key Series Features**

- Static/dynamic IP WAN type
- Point-to-Point over Ethernet (PPoE)

MODEL

- SSL/IPSec/PPTP/L2TP VPN
- VPN hub and spoke
- IPSec/PPTP/L2TP VPN pass-through
- 3G WAN redundancy via optional
- 3G USB modem Network Address Translation (NAT)
- transparent mode WAN traffic failover
- Outbound load balancing (DSR-500N/1000N only)
- Remote management (Web, SNMP, SSH, Telnet)
- Internet Group Management
- Protocol (IGMP) proxy/snooping • Stateful Packet Inspection (SPI)
- L2 to L7 access control
- IP/MAC binding
- Virtual LAN (VLAN)
- Intrusion Prevention System (IPS)
- Wireless Security (WEP, WPA, WPA2, WPS)
- Multiple SSIDs
- SSID-to-VLAN mapping
- IPv6 Phase 2 certified
- D-Link Green<sup>™</sup> Technology



DSR-150N

DSR-25







- (LAN) ports x 4
- USB 2.0 port x 1
- (detachable)
- 3G support

• 10/100/1000BASE-T

- 10/100/1000BASE-T
  - - - wireless LAN (2.4 GHz
- - or 5 GHz)

• 2dBi dipole antennas x 3 (detachable)

### • USB 2.0 ports x 2



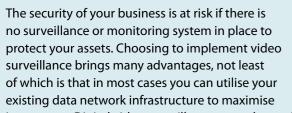
### **DSR-1000N**

- (WAN) ports x 2
  - 10/100/1000BASE-T
    - (LAN) ports x 4
  - IEEE 802.11a/b/g/n

N	DSR-500N	DSR-1000N
•	2	2
	2	2
	4	4
	1 x USB 2.0	2 x USB 2.0
	950 Mbps	950 Mbps
	70 Mbps	100 Mbps
	30,000	60,000
	300	600
	300	600
		As left plus Multiple PPPoE
	RIPv1, RIP v2, OSPF	
Package Included in Firmwa	ire	
	•	
	•	
		802.11a/b/g/n
	85	135
	35	70
	10	20
	15	20
	Internal Power Supply Unit	
	Input: 100-240 V AC, 50/60 Hz;	
25 mm	16.8 W	19.3 W
35 mm	180 x 280 x 44 mm	
		Eff (lars B (E Class B ( Tisk IC Vice)
		FCC Class B, CE Class B, C-Tick, IC, VCCI
rop, VPNC Basic Interop		
ours	260,000 Hours	

## Video Surveillance





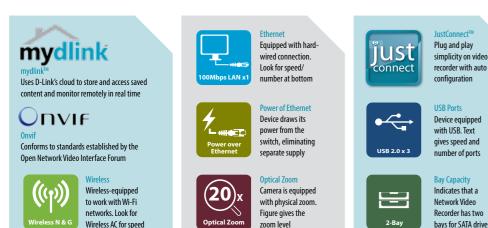
investment. Digital video surveillance not only provides all of the superior functionality of an effective analogue CCTV offering, but adds several key benefits, such as increased accessibility, realtime alerts, unlimited video storage, secure image distribution and superior cost benefits, not to mention, 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.

📾 1111

# ----.......

### Key to icons used

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



## Range Overview

#### **Fixed Cameras (Indoor)**



### **Fixed Cameras (Outdoor)**



### Panoramic and Mini Dome Cloud Cameras (Indoor)



#### Dome Cameras (Indoor/Outdoor)

















## **Fixed Network Cameras** (Wired / Wireless)

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



			O mydiał	0 mydlak	onie de mydiał	Cyvreless AC	mydiak	(Wreless AC myclifiait
MODEL	DCS-930L	DCS-932L	DCS-933L	DCS-942L	DCS-2132L	DCS-2136L	DCS-2230L	DCS-7000L
IMAGE SENSOR								
	1/5″VGA	1/5″VGA	1/5″VGA	1/5″VGA	1/4" 1 Megapixel	1/3"1 Megapixel	1/2.7" 2 Megapixel	1/4" 1 Megapixel
Туре	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Megapixel					•	•	•	•
Wide Dynamic Range (WDR) LowLight+						•		
Maximum Video Resolution	640 x 480	640 x 480	640 x 480	640 x 480	1280 x 720	1280 x 720	1920 x 1080	1280 x 720
LENS	<b>C</b> 1	<b>6</b> 1	<b>C</b> 1	<b>C</b> 1	<b>C</b> 1	<b>C</b> 1	<b>5</b>	<b>F</b>
Type For cold on oth	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Focal Length F-Number	5.01 mm F2.8	5.01 mm F2.8	3.15 mm F2.8	3.15 mm F2.8	3.45 mm F2.0	3.6 mm F1.4	4.37 mm F2.0	2.4 mm F2.0
i number	12.0					1 Lux (Colour)		
Minimum Illumination (Lux)	1 Lux	1 Lux (Colour) 0 Lux (B&W, IR-LED on)	0 Lux (Colour, White Light LED on)	1 Lux (Colour) 0 Lux (B&W, IR-LED on)	0.1 Lux (Colour) 0 Lux (B&W, IR-LED on			
Angle of View	45.3°/34.5°	45.3° / 34.5°	45.3°/34.5°	45.3°/34.5°	57.8°/37.8°	64°/46.5°	67.4°/40.8°	98° / 52°
(Horizontal/Vertical) Motorised Pan/Tilt								
Motorised Pan/Tilt Optical Zoom								
Privacy Masks					3 Zones	3 Zones	3 Zones	3 Zones
DAY AND NIGHT								
ICR Filter Built-in PIR		•	•				•	
Built-in IR		5 m	5 m	• 5 m	• 5 m	5 m (White Light)	• 5 m	• 8 m
		5111	5111	5111	5111	5 m (white Light)	5111	0111
AUDIO								
Two-Way Audio				•	•	•	•	•
Built-in Microphone	•	•	•	•	•	•	•	•
External Microphone Input Built-in Speaker								•
External Speaker Output						-		
CONNECTIVITY								
Wired LAN	•	•	•	•	•	•	•	•
Wireless LAN	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n/ac	802.11 b/g/n	802.11 b/g/n/ac
802.3af PoE Digital Input/Output					DI x 1, DO x 1	DI x 1, D0 x 1	DI x 1, DO x 1	
Monitor Output					01 x 1, 00 x 1	01 x 1, 00 x 1	DIX 1, DOX 1	
Memory Card Slot				• (16 GB included)		• (16 GB included)		
SOFTWARE FEATURES								
Video Format Multi Stroom	MJPEG	MJPEG	H.264, MJPEG		H.264, MPEG-4, MJPEG		H.264, MPEG-4, MJPEG	H.264, MJPEG
Multi-Stream Multi-Profile			•	•		•	•	
Digital Zoom	4 x	4x	4 x	- 4 x	10 x	10 x	10 x	10 x
Electronic Pan/Tilt								•
HTTP Secure (HTTPS)				•	•	•	•	
Java Support		•						
Motion Detection	•	•	•	•	•	•	•	•
E-Mail Notification	•			•		•	•	•
Schedule Recording to Hard Drive					•	•	•	•
Recording to NAS								
Audio Recording	•	•	•	•	•	•	•	•
Mobile Stream	•	•			•	•		•
UPnP Installation	•	•	•	•	•	•	•	•
DDNS Support		•	•		•	•	•	•
Enable/Disable LED Indicators D-ViewCam™ Compatible								
PHYSICAL AND ENVIRONMENT								
Dimensions	27.2 x 60 x 96 mm	27.2 x 60 x 96 mm	80 x 115 x 80 mm	27.2 x 60 x 96 mm	58 x 89 x 127.9 mm	58 x 43.1 x 128.8 mm	95 x 58 x 38.7 mm	93 x 56 x 49 mm
Weight	76.9 g	76.9 g	96.2 g	76.9 g	116 g	109 g	70 g	115 g (160 g with Stand
Maximum Power Consumption	5.5 W	2 W	4 W	5.5 W	3.65 W	4.5 W	2.5 W	3.5 W
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	0°C to 40°C	0°C to 40°C
Operating Humidity	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH

e-mail notification with snapshots • Integrated PIR sensor for enhanced

- Recording to local microSD card slot or to a NAS device • Motion detection, event recording and
- e-Mail notification with snapshots • Electronic pan/tilt/zoom for large-area
- coverage

- Sony Exmor 1/3" 1 megapixel progressive scan CMOS sensor supporting Wide Dynamic Range (WDR) and LowLight+ technology
- Two-way audio with built-in microphone

mydlink<sup>™</sup> is a cloud-based platform that maintains a live link between your router 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 automate, there is a mydlink<sup>™</sup> product, and supporting smartphone or tablet app, to help you. Just look for the mydlink<sup>™</sup> logo... mydlink



mydlink

Onvie

• Motion detection, event recording and

motion detection





mydlink

Wireless AC

Onvie



## Fixed Network Cameras (Wired – Indoor)

This range of wired indoor network cameras are perfect for larger offices or campus locations where 24/7 security is paramount, since the built-in Power over Ethernet capability enables them to be powered from just the one data cable direct to the switch. A full range of features makes it easy to find the perfect fit for your surveillance needs.

**\_** 

mydlink

#### **DCS-2210L**

Full HD PoE Day/Night Network Camera



1/2.7" 2 megapixel progressive scan CMOS sensor

- Fixed lens (4.37 mm, F2.0)
- Full HD 1080p resolution
- Up to 5 m night vision with integrated IR illuminator
  10 x digital zoom
- Two-way audio with built-in microphone and speaker
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots. Integrated PIR sensor for enhanced motion detection
- e-PTZ for virtual pan/tilt/zoom operation

#### DCS-3112 HD PoE Day/Night Fixed Network Camera



- Sony 1/4" 1.3 megapixel progressive scan CMOS sensor
   CS mount DC iris varifocal Lens (3.5mm~8 mm, F1.4) with 2.3 x optical zoom
- HD 720p or 1280 x 1024 resolution
- 10 x digital zoom
- Two-way audio with external microphone input and speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local SD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots.
- Infrared cutfilter removal for recording in low-light conditions

#### Analogue output



- Sony 1/3" 1.3 megapixel progressive scan CMOS sensor
   CS mount DC iris varifocal lens (2.9mm~8.2 mm, F1.0) with 2.8 x optical zoom
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- HD 720p or 1280 x 1024 resolution
- 10 x digital zoom
- Two-way audio with external microphone input and speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local SD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- Infrared cutfilter removal for recording in low-light conditionsAnalogue output

	ó mydiak	6	
MODEL	DCS-2210L	DCS-3112	DCS
IMAGE SENSOR			
Туре	1/2.7" 2 Megapixel Progressive Scan CMOS	Sony Exmor 1/4″ 1.3 Megapixel Progressive Scan CMOS	Sony WDR F
Megapixel	•	•	•
Wide Dynamic Range (WDR)			•
Maximum Video Resolution	1920 x 1080	1280 x 1024	1280 >
LENS			
Туре	Fixed	Varifocal, DC Iris,	Varifo
Focal Length	4.37 mm	3.5 mm~8 mm	2.9mm
F-Number	F2.0	F1.4	F1.0
	1 Lux (Colour)	0.4 Lux (Colour)	0.2 Lu
Minimum Illumination (Lux)	0 Lux (B&W, IR-LED on)	0.04 Lux (B/W)	0.02 L
Angle of View (Horizontal/Vertical) Motorised Pan/Tilt	67.4°/40.8°	35.4°~77.6° / 26.6°~57.6°	35.6°-
		22	2.0
Optical Zoom		2.3 x	2.8 x
Privacy Masks	3 Zones	3 Zones	3 Zone
DAY AND NIGHT			
Infrared Cutfilter Removal		•	•
Built-in IR	5 m		
AUDIO			
Two-Way Audio			
Built-in Microphone			
External Microphone Input		•	
Built-in Speaker	•		
External Speaker Output		•	•
CONNECTIVITY			
Wired LAN			
Wireless LAN			
802.3af PoE	•	•	•
Digital Input/Output	DI x 1, DO x 1	DI x 2, D0 x 1	DI x 2,
Monitor Output		BNC Output	BNC 0
Memory Card Slot	•	•	·
SOFTWARE FEATURES			
Video Format	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264,
Multi-Stream			•
Multi-Profile	•		•
Digital Zoom	10 x	10 x	10 x
HTTP Secure (HTTPS)	•	•	•
Java Support			
Motion Detection	•	•	•
E-Mail Notification	•		•
Recording to Local Storage	•	·	•
Recording to NAS	•	·	•
Audio Recording	•	·	•
Video Output to 3GPP UPnP Installation	•	•	•
	•	·	•
DDNS Support	•	•	•
Enable/Disable LED Indicators D-ViewCam™ Compatible		·	•
PHYSICAL AND ENVIRONMENT			
Dimensions	95 x 58 x 38.7 mm	180.4 x 80 x 52.9 mm	140 x
Weight	69 g	560 g	576 g
Maximum Power Consumption	2W	3.6 W	2 W
Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to
Operating Humidity	20% to 80% RH	20% to 80% RH	20% t

#### DCS-3716 Full HD WDR PoE Day/Night Fixed Network Camera





- Sony 1/2.8" 3 megapixel progressive scan CMOS sensor
   CS mount DC iris varifocal Lens (3.1mm~8mm, F1.2) with 2.6 x optical zoom
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- Full HD 1080p or 2048 x 1536 resolution
- 10 x digital zoom
- Two-way audio with external microphone input and speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local SD card slot or to a NAS device
  Motion detection, event recording and e-mail notification with snapshots
- Infrared cutfilter removal for recording in low-light conditions
- Analogue output

DCS-3710	DCS-3716
Sony Exmor 1/3" 1.3 Megapixel WDR Progressive Scan CMOS	Sony Exmor 1/2.8" 3 Megapixel WDR Progressive Scan CMOS
•	•
1280 x 1024	2048 x 1536
Varifocal, DC Iris 2.9mm~8.2 mm	Varifocal, DC Iris 3.1mm~8.0 mm
F1.0	F1.2
0.2 Lux (Colour) 0.02 Lux (B/W)	10.5 Lux (Colour); 0.05 Lux (B/W)
35.6°~95° / 26.7°~69°	38.7°~95.9°/29.1°~71.0°
5510 75 7 2017 07	55 55.5 / 25.1 / 1.0
2.8 x	2.6 x
3 Zones	3 Zones
•	•
•	•
·	•
•	•
•	•
DI x 2, DO x 1 BNC Output	DI x 2, DO x 1 BNC Output
•	•
H.264, MJPEG, MPEG-4	H.264, MPEG-4, MJPEG
•	•
10 x	10 x
•	•
•	•
•	•
• •	•
•	•
•	•
•	•
•	•
	•
140 x 80 x 53 mm	140 x 80 x 53 mm
576 g	580 g
2 W	4 W
0°C to 40°C 20% to 80% RH	0°C to 40°C 20% to 80% RH
Non-Condensing	Non-Condensing

## Fixed Network Cameras (Wired – Outdoor)

This selection of 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 longdistance night vision, digital zoom and motion detection/alert make them perfect for the perimeter areas of buildings, alleyways or other dimly lit areas.

-

Onvie

mydlink

#### **DCS-2310L**

**Outdoor HD PoE Day/Night Cloud Camera** 



• 1/4" 1 megapixel progressive scan CMOS sensor

- Fixed lens (3.45 mm, F 2.0)
- HD 720p or 1280 x 800 resolution
- Up to 5 m night vision with integrated IR illuminator 10 x digital zoom
- Two-way audio with built-in microphone and speaker
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- Integrated PIR sensor for enhanced motion detection
- ePTZ for virtual pan/tilt/zoom operation

#### **DCS-7010L Outdoor HD PoE Day/Night Fixed** Mini Bullet Cloud Camera

Power over Ethernet **.** 

Onvie

- mydlin • 1/4" 1 megapixel progressive scan CMOS sensor
- Fixed lens (4.3 mm, F2.0)
- HD 720p or 1280 x 800 resolution
  - Up to 10 m night vision with integrated IR illuminator • 4 x digital zoom
- Two-way audio with external microphone input and speaker output
  - Supports MJPEG, MPEG-4 and H.264 Video Formats • Recording to local microSD card slot or to a NAS device
  - · Motion detection, event recording and e-mail notification with snapshots
  - IP67 weatherproof housing

#### **Outdoor HD PoE Day/Night Fixed Bullet Camera**

**DCS-7110** 



Ţ.

- Sony 1/2.7" 2 megapixel progressive scan CMOS sensor • Fixed lens (4 mm, F1.5)
- HD 1080p or 1920 x 1080 resolution
- Up to 15 m night vision with integrated IR illuminator
- 4 x digital zoom
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- Tamper detection
- Analogue output • IP66 weatherproof housing

#### **DCS-7413 Outdoor Full HD PoE Day/Night Fixed Bullet Network Camera**



- 1/2.7" 2 megapixel progressive scan CMOS sensor
- Fixed lens (4.3 mm, F2.0)
- Full HD 1080p resolution
- Up to 30 m night vision with integrated IR illuminator
- 10 x digital zoom
- Two-way audio with external microphone input and speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local SD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- Analogue output
- IP68 weatherproof housing

#### DCS-7513 Outdoor Full HD VarifocalWDR PoE



- 1/2.8" 2 megapixel progressive scan CMOS sensor
- Motorised P-iris varifocal lens (3~9 mm) with 3 x optical zoom • Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- Full HD 1080p resolution
- Up to 30 m night vision with integrated IR illuminator 10 x digital zoom
- Two-way audio with external microphone input and speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local SD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
  - Analogue output • IP68 weatherproof 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 guantity shall not be possible when the enclosure is immersed in water up to 3m deep indefinitely.

IODEL	mydlink				The second second
IODEL		mydlink			
	DCS-2310L	DCS-7010L	DCS-7110	DCS-7413	DCS-7513
MAGE SENSOR					
ype	1/4″1 Megapixel	1/4" 1 Megapixel	1/2.7" 2 Megapixel	1/2.7" 2 Megapixel	1/2.8" 2 Megapixel
	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
legapixel Vide Dynamic Range (WDR)	•	•	•	•	•
laximum Video Resolution	1280 x 800	1280 x 800	1920 x 1080	1920 x 1080	1920 x 1080
Pixels)	1200 X 000	1200 x 000	1720 X 1000	1720 X 1000	1720 X 1000
ENS					
уре	Fixed	Fixed	Fixed	Fixed	Motorised P-Iris Varifocal Lens
ocal Length	3.45 mm	4.3 mm	4 mm	4.3 mm	3~9 mm
Number	F2.0	F2.0	F1.5	F2.0	F1.2~2.3
linimum Illumination (Lux)	1 Lux (Colour), 0.5 Lux (B&W) 0 Lux (B&W, IR-Led on )	1.5 Lux (Colour) 0 Lux (B&W, IR-LED on)	0.26 Lux (Colour) 0 Lux (B&W, IR-LED on)	1.5 Lux (Colour) 0 Lux (B&W, IR-LED on )	0.2 Lux (Colour) 0 Lux (B&W, IR-LED on )
ngle of View Horizontal/Vertical)	57.8°/37.8°	73.5°/42.5°	77.4°/45.1°	79° / 43°	121.2°~38.1°/62.1°~21.3°
lotorised Pan/Tilt					
ptical Zoom					3X
rivacy Masks	3 Zones	3 Zones	3 Zones	3 Zones	3 Zones
AY AND NIGHT					
CR Filter					
uilt-in IR	5 m	10 m	15 m	30 m	30 m
udio					
wo-Way Audio		•		•	•
uilt-in Microphone	•				
xternal Microphone Input		•		•	•
uilt-in Speaker	•				
xternal Speaker Input		•		•	•
ONNECTIVITY					
/ired LAN		•	•		•
/ireless LAN					
02.3af PoE		•	•		•
igital Input/Output		DI x 1, DO x 1	DI x 1, DO x 1	DI x 1, DO x 1	DI x 1, DO x 1
Ionitor Output			BNC	BNC	BNC
lemory Card Slot	•	•		•	•
OFTWARE FEATURES					
ideo Format	H.264, MJPEG, MPEG-4	H.264, MJPEG, MPEG-4	H.264, MJPEG, MPEG-4	H.264, MJPEG, MPEG-4	H.264, MJPEG, MPEG-4
lulti-Stream		•	•	•	•
lulti-Profile			•		
igital Zoom	10 x	4 x	4 x	10 x	10 x
ITTP Secure (HTTPS)	•	•	•		
ava Support	•				
lotion Detection -Mail Notification	•	•	•	•	•
ecording to Local Storage	•				
ecording to NAS					
udio Recording		•			•
ideo Output to 3GPP	•	•	•		•
PnP Installation		•	•	•	•
DNS Support	•	•	•	•	•
nable/Disable LED Indicators					
-ViewCam <sup>™</sup> Compatible	•	•	•	•	•
HYSICAL AND ENVIRONMENT					
Rating	IP65	IP67	IP66	IP68	IP68
imensions	138.9 x 93 x 66 mm	176.5 x 80.5 x 65 mm	197 x 73 x 71 mm	316.5 x 249.1 x 100 mm	316.5 x 249.1 x 100 mm
/eight	235 g	510 g	783 g	1.92 Kg (with Bracket and Sun Shield)	2.05 Kg (with Bracket and Sunshield)
laximum Power Consumption		5.4W	6 W	11.2 W	11.02 W
perating Temperature	-25°C to 50°C	-25°C to 50°C	-20°C to 50°C	-40°C to 50°C	-40°C to 50°C
perating 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

#### What is mydlink<sup>™</sup>?

mydlink<sup>™</sup> is a cloud-based platform that maintains a live link between your router via the Internet and your mydlink<sup>™</sup> 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 automate, there is a mvdlink™ product, and supporting smartphone or tablet app, to help you. Just look for the mydlink<sup>™</sup> logo... mydlink

### Panoramic & Mini Dome Cloud Cameras (Indoor)

Power over Ethernet

Ę.

Onvie

mydlink

((m))

Onvie

mydlink

#### DCS-6004L Indoor HD PoE Mini Dome Cloud Camera



• 1/4" 1 megapixel progressive scan CMOS sensor

- Fixed lens (2.8 mm, F1.8)
- HD 720p or 1280 x 800 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 or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots

### DCS-6010L 2-Megapixel Panoramic Wireless Cloud Camera



- 1/3.2" 2 megapixel progressive scan CMOS sensor
- Fixed fisheye lens (1.25 mm, F2.0)
- Ceiling-mount 360° surveillance with fisheye distortion correction
- 1620 x 1200 resolution
- 10 x digital zoom
- Two-way audio with built-in microphone and speaker
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device
  Motion detection, event recording and e-mail notification
- with snapshots

  ePTZ for virtual pan/tilt/zoom operation

#### What is mydlink<sup>™</sup>?

Please see the previous page for an explanation on how the mydlink<sup>™</sup> cloud-based platform can help you to access, control, monitor and automate.

	in the second se	mydis
MODEL	DCS-6004L	DCS-6010L
IMAGE SENSOR		
Туре	1/4" 1 Megapixel Progressive Scan CMOS	1/3.2" 2 Megapixel Progressive Scan CMOS
Megapixel		
Wide Dynamic Range (WDR)		
Maximum Video Resolution (Pixels)	1280 x 800	1600 x 1200
LENS		
Туре	Fixed	Fisheye
Focal Length	2.8 mm	1.25 mm
F-Number	F1.8	F2.0
Minimum Illumination (Lux)	1 Lux (Colour) 0 Lux (B&W, IR-LED on)	1 Lux
Angle of View	75.2° / 48.2°	180° / 180°
(Horizontal/Vertical) Motorised Pan/Tilt		
Optical Zoom		
Privacy Masks	3 Zones	3 Zones
·	J LUIIC3	5 201103
DAY AND NIGHT ICR Filter		
Built-in IR	5 m	
AUDIO		
Two-Way Audio	•	•
Built-in Microphone	•	•
External Microphone Input Built-in Speaker		
External Speaker Output		
CONNECTIVITY		
Wired LAN	•	•
Wireless LAN		802.11g/b/n
802.3af PoE	•	
Digital Input/Output		
Monitor Output		
Memory Card Slot	•	•
SOFTWARE FEATURES		
Video Format	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG
Multi-Stream	•	•
Multi-Profile	10V	•
Digital Zoom	10X	10X
HTTP Secure (HTTPS)	•	
Java Support Motion Detection		
E-Mail Notification	•	
Recording to Local Storage		•
Recording to NAS		
Audio Recording		
Video Output to 3GPP		
UPnP Installation		
DDNS Support		
Enable/Disable LED Indicators		
D-ViewCam <sup>™</sup> Compatible	•	
PHYSICAL AND ENVIRONMENT		
	90 x 50.5 mm (Ø x H)	134.2 x 49.8 mm (Ø x H)
Dimensions		
Dimensions Weight		1.92 Kg (with Bracket and Sun Shield
Weight	130 g 3.5 W	1.92 Kg (with Bracket and Sun Shield 3.9 W
	130 g	

## Fixed Network Cameras (Wireless – Outdoor)

#### MODEL **DCS-2330L** IMAGE SENSOR Outdoor HD Wireless Day/Night **Cloud Camera** Type Megapixel Wide Dynamic Range (WDR) Maximum Video Resolution (Pixels) LENS Onvie Туре Focal Length mydlink F-Number • 1/4" 1 megapixel progressive scan CMOS sensor Minimum Illumination (Lux) • HD 720p resolution • Up to 5 m night vision with integrated IR illuminator Angle of View (Horizontal/Vertical) • Built-in microphone Motorised Pan/Tilt • Supports MJPEG and H.264 video formats Ontical Zoom • Recording to local microSD card slot (16 Gb included) Privacy Masks or to a NAS device DAY AND NIGHT • Motion detection, event recording and e-mail notification with snapshots and video ICR Filter • Integrated PIR sensor for enhanced motion detection **Built-in PIR** Built-in IR • ePTZ for virtual pan/tilt/zoom operation • IP65 weatherproof housing Two-Way Audio **Built-in Micropho External Microphone Input** Built-in Speaker DCS-23321 CONNECTIVITY **Outdoor HD Wireless Day/Night Cloud Camera** Wired LAN Wireless LAN 802.3af PoE **Digital Input/Output** Monitor Output Memory Card Slot SOFTWARE FEATURES Onvie Video Format Multi-Stream mydlink Multi-Profile • 1/4" 1 megapixel progressive scan CMOS sensor **Digital Zoom** HD 720p resolution HTTP Secure (HTTPS) Up to 5 m night vision with integrated IR illuminator Java Support • Two-way audio with built-in microphone and speaker **Motion Detection** • Supports MJPEG, MPEG-4 and H.264 video formats F-Mail Notification • Recording to local microSD card slot or to a NAS device **Recording to Local Storage** Recording to NAS • Motion detection, event recording and e-mail notification Audio Recording with snapshots **UPnP** Installation Integrated PIR sensor for enhanced motion detection DDNS Support IP65 weatherproof housing Enable/Disable LED Indicators D-ViewCam<sup>™</sup> Compatible PHYSICAL AND ENVIRONMEN **IP Rating** Dimensions Weight Maximum Power Consum

Operating Temperature

**Operating Humidity** 

2	mydliak	mydiak
DCS-2330L		DCS-2332L
<ul> <li>1/4"1 Megapixel Progressive</li> <li>•</li> </ul>	e Scan CMOS	1/4"1 Megapixel Progressive Scan CMOS •
1280 x 720		1280 x 720
Fixed		Fixed
3.45 mm		3.45 mm
F2.0		F2.0
1 Lux (colour), 0.5 Lux (B& 0 Lux (B&W, IR-Led on )	W),	1 Lux (colour), 0.5 Lux (B&W), 0 Lux (B&W, IR-Led on )
57.8°/37.8°		57.8° / 37.8°
3 zones		3 zones
•		•
5m		5m
		•
•		•
		•
• 802.11b/g/n		• 802.11b/g/n
002.11b/g/1		602.11b/g/11
(1( CD is shided)		
<ul> <li>(16 GB included)</li> </ul>		
H 264 MIDEC		H.264, MJPEG, MPEG-4
н.264, МЈРЕG •		•
10 x		10 x
•		•
•		•
•		•
•		•
•		•
•		•
•		
1045		IDCC
IP65 66 x 45.7 x 146.8 mm		IP65 66 x 45.7 x 146.8 mm
134 g		235 g
5 W		5.3 W
-25°C to 50°C		-25°C to 50°C
20% to 80% RH Non-Cond	ensing	20% to 80% RH Non-Condensing

## Fixed Dome Network Cameras (Wired)

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.

Power over Ethernet

**.** 

Onvie

**.** 

Onvie

#### **DCS-6113** Indoor Full HD PoE Day/Night

**Fixed Dome Network Camera** 



- 1/2.7" 2 megapixel progressive scan CMOS sensor
- Fixed lens (4 mm, F1.5)
- Full HD 1080p resolution
- Up to 10 m night vision with integrated IR illuminator • 16 x digital zoom
- Two-way audio with external microphone input and
- speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- Tamper detection
- Analogue output



**DCS-6210** 

- 1/2.7" 2 megapixel progressive scan CMOS sensor
- Fixed lens (4.3 mm, F2.0)
- Full HD 1080p resolution
- 10 x digital zoom
- Built-in microphone
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device • Motion detection, event recording and e-mail notification with snapshots
- ePTZ for virtual pan/tilt/zoom operation
- IP66 weatherproof and IK10 vandal-proof housing

### DCS-6315

#### Outdoor HD WDR Varifocal Day & Night Dome Network Camera with Colour Night Vision



- 1/3" 1 megapixel WDR progressive scan CMOS sensor
- Varifocal lens (2.8~12 mm, F1.4) with 4 x optical zoom
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- LowLight+ technology
- HD 720p resolution
- Up to 15 m night vision with integrated IR illuminator
- 10 x digital zoom
- Two-way audio with external microphone input and speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device • Motion detection, event recording and e-mail notification
- with snapshots

#### • IP68 weatherproof and IK10 vandal-proof housing

#### **DCS-6511 Outdoor PoE Vandal-Resistant HD** Fixed Dome Network Camera



- 1/3" 1.3 megapixel WDR progressive scan CMOS sensor • Motorised varifocal lens (3.3~12 mm, F1.4~360) with 3.6 x optical zoom
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environ
- HD 720p or 1280 x 1024 resolution • Up to 20 m night vision with integrated IR illuminator
- 10 x digital zoom
- Two-way audio with external microphone input and speaker output
  - Supports MJPEG, MPEG-4 and H.264 video formats
  - Recording to local microSD card slot or to a NAS device • Motion detection, event recording and e-mail notification with snapshots
  - Analogue output
  - IP66 weatherproof and IK10 vandal-proof housing

### **DCS-6314 Outdoor Full HD WDR Varifocal** Day & Night Dome Network Camera



• 1/2.8" 2 megapixel WDR progressive scan CMOS sensor

Onvie

- Varifocal lens (2.8~12 mm, F1.4) with 4 x optical zoom
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environme
- Full HD 1080p resolution

Power over Ethernet

**\_**\_\_

Onvie

Power over Ethernet

Ţ.

Onvie

- Up to 15 m night vision with integrated IR illuminator
- 10 x digital zoom
- Two-way audio with external microphone input and speaker output
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device • Motion detection, event recording and e-mail notification
- with snapshots
- IP68 weatherproof and IK10 vandal-proof housing

#### DCS-6513 **Outdoor Full HD WDR Day & Night Dome Network Camera**



- 1/2.8" 3 megapixel WDR progressive scan CMOS sensor • Motorised P-iris varifocal lens (3~9 mm, F1.2~2.3) with
- 3 x optical zoom • Wide Dynamic Range (WDR) technology for exceptional
- Full HD 1080p or 2048 x 1536 resolution
- 10 x digital zoom
- Two-way audio with external microphone input and
- Supports MIPEG. MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device
- with snapshots
- IP67 weatherproof and IK10 vandal-proof housing

	0					
MODEL	DCS-6113	DCS-6210	DCS-6314	DCS-6315	DCS-6511	DCS-6513
IMAGE SENSOR						
Гуре	1/2.7" 2 Megapixel Progressive Scan CMOS	1/2.7" 2 Megapixel Progressive Scan CMOS	1/2.8" 2 Megapixel WDR Progressive Scan CMOS	1/3" 1 Megapixel WDR Progressive Scan CMOS	1/3" 1.3 Megapixel WDR Progressive Scan CMOS	1/2.8" 3 Megapixel WDR Progressive Scan CMOS
Megapixel			•	•	•	
Wide Dynamic Range (WDR)			•	•	•	
LowLight+ Maximum Video Resolution		1000 × 1090 (16:0)	1020 v 1090 (16-0)	•	1200 v 720 /160)	1020 v 1090 (16:0)
(Pixels)	1920 x 1080	1920 x 1080 (16:9) 1440 x 1080 (Other)	1920 x 1080 (16:9) 1440 x 1080 (Other)	1280 x 720 (16:9) 1024 x 768 (Other)	1280 x 720 (16:9) 1280 x 1024 (Other)	1920 x 1080 (16:9) 2048 x 1536 (Other)
LENS	Fixed	Fixed	Varifacal	Varifacal	Mataricad Varifacal	Mataricad D. Iric Varifacal
Type Focal Length	Fixed 4.0 mm	Fixed 4.3 mm	Varifocal 2.8~12 mm	Varifocal 2.8~12 mm	Motorised Varifocal 3.3~12 mm	Motorised P-Iris Varifocal 3~9 mm
F-Number	4.0 mm	4.5 mm	F1.4	F1.4	F1.4~360	F1.2~2.3
	0.12 Lux (Colour)		0.2 Lux (Colour)	0.1 Lux (Colour)	0.1 Lux (Colour)	0.5 Lux (Colour)
Minimum Illumination (Lux) Angle of View	0 Lux (B&W, IR-LED on)	1 Lux	0 Lux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)
(Horizontal/Vertical)	77.4°/45.1°	79° / 43°	96.5°~31.2°/64.5°~17.8° 4 x	90°~28°/58.8°~16° 4 x	23.9°~89.8° / 63.6°~17.9° 3.6 x	96.4°~31.6°/51.2°~17.7° 3 x
Optical Zoom Privacy Masks	5 Zones	3 Zones	4 x 3 Zones	4 x 3 Zones	3.6 X 3 Zones	3 X 3 Zones
DAY AND NIGHT						
ICR Filter						
Built-in IR	15 m		15 m	15 m	20 m	20 m
AUDIO						
Two-Way Audio						
Built-in Microphone						
External Microphone Input		-				
Built-in Speaker						
External Speaker Output			•		•	
CONNECTIVITY						
Wired LAN Wireless LAN	•	•	•	•	•	•
802.3af PoE						
Digital Input/Output	DI x 1, D0 x 1		DI x 1, DO x 1	DI x 1, DO x 1	DI x 1, D0 x 1	DI x 1, DO x 1
Monitor Output	BNC				BNC	BNC
Memory Card Slot	•	• (Max 32 GB)	• (Max 32 GB)	• (Max 64 GB)	• (Max 32 GB)	• (Max 32 GB)
SOFTWARE FEATURES						
Video Format	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG
Multi-Stream Multi-Profile	•			•	•	•
Digital Zoom	16 x	• 10 x	• 10 x	• 10 x	• 10 x	• 10 x
HTTP Secure (HTTPS)	•	•	•	•	•	•
Java Support				•		
Motion Detection			•	•	•	
E-Mail Notification		•	•	•	•	
Recording to Local Storage	•	•	•	•	•	•
Recording to NAS	•	•	•	•	•	•
Audio Recording	•	•	•	•	•	•
Video Output to 3GPP	•	•	•	•	•	•
UPnP Installation	•	•	•	•	•	•
DDNS Support		•				
Enable/Disable LED Indicators D-ViewCam™ Compatible						•
-						
PHYSICAL AND ENVIRONMENT						
P Rating		IP68	IP68	IP68	IP66	IP67
/andal Proof		IK10	IK10	IK10	IK10	IK10
Dimensions	130 x 97.8 mm (Ø x H)	115.52 x 106.75 x 51.59 mm	123 x 113.7 x 128 mm	123 x 113.7 x 128 mm	127 x 151.79 x 191.8 mm	151.79 x 191.3 x 127 mm
Weight Navimum David Canadation	472 g	412.2 g	1.112 Kg	1.112 Kg	1.030 Kg	1.53 Kg
Maximum Power Consumption	5.3 W	7.8W	10.5 W	10.5 W	9W	10.5 W
Operating Temperature Operating Humidity	0°C to 40°C 20% to 80% RH Non-Condensing	-25°C to 50°C 20% to 80% RH Non-Condensing	-30°C to 50°C 20% to 80% RH Non-Condensing	-30°C to 50°C 20% to 80% RH Non-Condensing	-40°C to 50°C 20% to 80% RH Non-Condensing	-40°C to 50°C 20% to 80% RH Non-Condensir
ACCESSORIES	2010 to our nin non contending	Less to cover an non-contending	2010 to 0010 hit hold conactising	2070 to 0070 hit Holt Contending	Lets to our an non-conactibility	
					DCS-34-2	DCS-34-2
Mounting Options			DCS-34-2	DCS-34-2	DCS-34-3	DCS-34-3
			DCS-34-3	DCS-34-3	DCS-34-4	DCS-34-4

Onvie

- picture quality in extreme-contrast environments
- Up to 20 m night vision with integrated IR illuminator
- speaker output
- Motion detection, event recording and e-mail notification

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

These high-speed PTZ and dome cameras feature full 360° panning for all-round superwide-range surveillance. Available in both indoor and outdoor enclosures, and with ultralow-lux sensors and ICR support, these cameras can be automated with preset focal points and an 'auto patrol cruise' to provide a continual scan inside or outside a building.

mydlin

#### DCS-5009L (Indoor) Wi-Fi Pan & Tilt Day/Night Camera



- 1/5" 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
- Supports H.264 and MJPEG video formats
- Motion and sound detection, event recording and e-mail notification with snapshots and video





- 1/5" 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

- Built-in wireless extender (maximum five clients)
- notification with snapshots and video

### Pan/Tilt/Zoom Cloud Camera

DCS-5222L (Indoor)



• 1/4" 1 megapixel progressive scan CMOS sensor • Fixed lens (4.57 mm, F1.9)

Onvie

mydlin

- Motorised pan/tilt with +170° to -170° pan range and +90° to -25° tilt range
- HD 720p resolution
- Up to 5 m night vision with integrated IR illuminator
- 4 x digital zoom

mydlink

- 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 or to a NAS device • Motion detection, event recording and e-mail notification
- with snapshots • Integrated PIR sensor for enhanced motion detection

20X Full HD WDR 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 360° endless pan and +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 environm
- Full HD 1080p resolution
- Day and night vision with Infrared Cutfilter Removal (ICR) • Two-way audio with external microphone input and
- speaker output • Supports MJPEG and MPEG-4 video formats
- Recording to local microSD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- IP66 weatherproof and IK10 vandal-proof housing



	W mydlink	mydini	c wydink		-	
IODEL	DCS-5009L	DCS-5020L	DCS-5222L	DCS-5615	DCS-6616	DCS-6915
AGE SENSOR						
/pe	1/5″VGA Progressive Scan CMOS	1/5"VGA Progressive Scan CMOS	1/4" 1 Megapixel Progressive Scan CMOS	1/2.7" 2 Megapixel Progressive Scan CMOS	1/4" Sony Super HAD II CCD	1/2.8" Sony Exmor 2 Megapixel CMOS
egapixel			•	•		•
ide Dynamic Range (WDR)					• NTSC: 720 x 480	•
aximum Video Resolution	640 x 480	640 x 480	1280 x 720	1920 x 1080	PAL: 720 x 576	1920 x 1080
NS						
pe	Fixed	Fixed	Fixed	Fixed	Varifocal	Motorised Varifocal
cal Length	2.2 mm F 2.0	2.2 mm F 2.0	4.57 mm	4 mm	3.8~45.6 mm F1.6~F2.7	4.7~94 mm F1.6~3.5
Number	1 Lux (Colour)	1 Lux (Colour)	F1.9 1 Lux (Colour)	F1.5	0.1 Lux (Colour)	0.1 Lux (Colour)
inimum Illumination (Lux)	0 Lux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)	1 Lux (Colour)	0.01 Lux (B/W)	0.01 Lux (Colour)
ngle of View				77 40 / 46 10	4.49°~52.8°	52.27°~4.07°
orizontal/Vertical)	66.22° / 49 °	66.22° / 49 °	98° / 52°	77.4°/45.1°	3.40°~39.7°	33.4°~2.33°
otorised Pan/Tilt	•	•	•	•	•	•
otical Zoom			27	r 7	12 x	20 x
ivacy Masks			3 Zones	5 Zones	16 Zones	16 Zone
AY AND NIGHT						
frared Cutfilter Removal	•	•	•		•	•
uilt-in IR	8 m	8 m	5 m			
UDIO						
-Way Audio						
uilt-in Microphone			•		-	
cternal Microphone Input						
uilt-in Speaker						
xternal Speaker Output					•	•
ONNECTIVITY						
/ired LAN						
/ireless LAN	802.11b/g/n	802.11b/g/n	802.11b/g/n		-	
uilt-in Wi-Fi Extender	0021110,g,11	•	0021110/g/ii			
02.3af PoE				•		
igital Input/Output			DI x 1, DO x 1	DI x 1	DI x 8, DO x 1	DI x 4, DO x 1
lonitor Output					BNC	
lemory Card Slot			•	•		•
OFTWARE FEATURES						
ideo Format	H.264, MJPEG	H.264, MJPEG	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264, MJPEG
ulti-Stream	•	•	•	•	•	•
ulti-Profile	•	•	•	•	•	•
igital Zoom	4 x	4 x	10 x	16 x	12 x	10 x
TTP Secure (HTTPS)			•	•		
ava Support	•	•				
lotion Detection	•	•	•	•	•	•
ound Detection -Mail Notification			•		•	
-mail Notification chedule Recording						•
Hard Drive			•	•	·	•
ecording to NAS			•	•	•	
udio Recording	•	•	•	•	•	
deo Output to 3GPP	•	•	•	•		
PnP Installation	·	•	•	•	•	•
DNS Support	•	•	•	•	•	•
able/Disable LED Indicators	•		•	•		
ViewCam <sup>™</sup> Compatible					•	•
IYSICAL AND ENVIRONMENT						IDec
Rating and Decof						IP66
andal Proof mensions	102.35 x 101.27 x 133.6 mm	102.35 x 101.27 x 133.6 mm	114 x 125 mm (0 x U)	116 34 x 56 7 mm (6 x 11)	131 x 205 mm (Ø x H)	IK10
leight	292.4g	292.4g	114 x 125 mm (Ø x H) 540 g	116.34 x 56.7 mm (Ø x H) 210g	1.2 Kg	191.97 x 282.11 mm (Ø x H 2.32 Kg
aximum Power Consumption	8.64 W	8.64 W	9W	5.8 W	14 W	65 W (with Heater)
perating 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	-45°C to 50°C
perating 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
CCESSORIES			······		y	
CESSURIES						

#### DCS-5615 (Indoor) **Full HD Mini Pan & Tilt Dome Network Camera**



- 1/2.7" 2 megapixel progressive scan CMOS sensor
- Fixed Lens (4.0 mm, F1.5)
- Motorised pan/tilt with +180° to -180° pan range and +90° to -10° tilt range
- Full HD 1080p resolution
- 16 x digital zoom
- Built-in microphone
- Supports MJPEG, MPEG-4 and H.264 video formats
- Recording to local microSD card slot or to a NAS device
- Motion detection, event recording and e-mail notification with snapshots
- Tamper detection

**.** 

Power over Ethernet

• 1/4" Sony Super HAD-II CCD sensor

DCS-6616 (Indoor)

WIII

- Motorised varifocal lens (3.8~45.6 mm, F1.6~2.7) • Motorised pan/tilt with fast 10°~400°/Sec 360°
- endless pan and +170° 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
- 720 x 576 (NTSC) or 720 x 480 (PAL) resolution • Day and night vision with Infrared Cutfilter Removal (ICR)

• Supports MJPEG, MPEG-4 and H.264 video formats

• Motion detection, event recording and e-mail notification

• 12 x digital zoom

with snapshots

• Two-way audio with external microphone input and speaker output

• 640 x 480 resolution • Up to 8 m night vision with integrated IR illuminator • 4 x digital zoom

- Built-in microphone
- Supports MJPEG and H.264 video formats
- Motion and sound detection, event recording and e-mail

### DCS-6915 (Outdoor) 12x WDR Speed Dome Network Camera 12

Onvie



## VIGILANCE Camera Range (Indoor / Outdoor / Vandal-Proof)

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.

DCS-4602EV (Outdoor)

#### DCS-4201 (Indoor) **HD Wireless Camera**



- 1/4" 1-Megapixel progressive scan CMOS
- Fixed lens (1.8 mm, F2.4)
- 720p HD resolution
- · Up to 10m night vision
- 4x digital zoom
- Enhanced PIR motion detection
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- Built-in microphone and speaker
- SD card slot for video recording
- · Wireless and wired connectivity



((y)) Wireless N 8

Ţ

Onvie

Power over Ethernet

**.** 

Onvie



• 1/3" 2-Megapixel progressive scan CMOS

- Fixed lens (2.8mm, F1.8)
- 1080P Full HD resolution
- Up to 20m night vision
- 10x digital zoom
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- IP66 weatherproof and IK10 vandal-proof housing · Power-over-Ethernet simplifiesinstallation as well as deployment cost.

### DCS-4603 (Indoor) **Full HD PoE Dome Camera**



- 1/3" 3-Megapixel progressive scan CMOS
- Fixed lens (2.8mm, F1.8)
- 1080P Full HD and QXGA (2048 x 1536) resolution
- Up to 10m night vision
- 10x digital zoom
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments 3D noise reduction

Onvie

- 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
- Fixed lens (2.8mm, F1.8)
- 720P HD resolution
- Up to 30m night vision
- 10x digital zoom
- 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
- Power-over-Ethernet simplifies installation as well as deployment cost.

#### DCS-4802E (Outdoor) **Vigilance Full HD Outdoor PoE** Mini Dome Camera



- 1/3" 2-Megapixel progressive scan CMOS
- Fixed lens (2.8mm, F1.8)

0

- 1080P Full HD resolution
- Up to 20m night vision
- 10x digital zoom
- Wide Dynamic Range (WDR) technology for exceptional picture quality in extreme-contrast environments
- 3D noise reduction
- 3-axis gimbal provides greater flexibility to achieve the view you want, whether the camera is mounted on the ceiling or wall.
- IP66 weatherproof housing
- Power-over-Ethernet simplifiesinstallation as well as deployment cost.

#### é0.: D MODEL DCS-4201 DCS-4602EV IMAGE SENSOR 1/4"1-Megapixel 1/3"2-Megapixel $1/3^{\circ}$ Type progressive scan CMOS progressive scan CMOS prog Megapixel . . Wide Dynamic Range (WDR) **3D Noise Reduction** LowLight+ 1280 x 720 (16:9) 1920 x 1080 (16·9) 1920 Maximum Video Resolutior 960 x 720 (other) 1440 x 1080 (other) 204 I FNS Fixed Fixed Fixe Type Focal Length 18 mm 28 mm 28 F-Number F 2.4 F1.8 F1. 1.0 lux/F2.4 (colour) 1.0 lux/F2.0 (colour) 1.0 | 0.5 lux/F2.4 (B/W) 0.5 lux/F2.0 (B/W) 0.5 l 0 Lux (B&W, IR-LED on) 0 Lux (B&W, IR-LED on) 0Lu Angle of View 96° 97.6° / 69.2° / 108.9° 96° / 54° / 108° rizontal/Vertical Privacy Masks 3 Zones 3 Zones 3 Zo DAY AND NIGHT Infrared Cutfilter Removal **Built-in IR** 10 m 20 m 2-Way Audio **Built-in Micropho** Built-in Speaker CONNECTIVITY Wired LAN Wireless I AN 802.11b/a/n 802.3af PoE Digital Input/Output DI x 1, DO x 1 Memory Card Slot SOFTWARE FEATURES H.264, MJPEG Video Format H.264, MJPEG Multi-Stream **Digital Zoom** 4 x 10 x Motion Detection . E-Mail Notification **Recording to NAS** • **DDNS Support** . IPv6 Support • D-ViewCam<sup>™</sup> Compatibl PHYSICAL AND ENVIRONMENT IP Rating IP66 Vandal Proo IK10 95 x 58 x 30.7mm Φ110×78m Φ1 0~40°C -30 ~ 50°C 0~ **Operating Temperature Operating Humidity** 20 ~ 80% RH (non-condensing) 20 ~ 80% RH (non-condensing) 20

0

### Network Camera Accessories: Brackets, PSU



89

	())))	Contraction of the local division of the loc
C		
CS-4603	DCS-4701E	DCS-4802E
"3-Megapixel	1/3"1.3-Megapixel	1/3" 2-Megapixel
gressive scan CMOS	progressive scan CMOS	progressive scan CMOS
	•	•
	•	•
	•	
20 x 1080 (16:9)	1280 x 720 (16:9)	1920 x 1080 (16:9)
48 x 1536 (other)	960 x 720 (other)	1440 x 1080 (other)
xed	Varifocal	Motorised Varifocal
8 mm	2.8 mm	2.8 mm
.8	F1.8	F1.8
lux/F2.0 (colour)	0.2 lux/F2.0 (colour)	1.0 lux/F2.0 (colour)
lux/F2.0 (B/W)	0.1 lux/F2.0 (B/W)	0.5 lux/F2.0 (B/W)
ux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)	0 Lux (B&W, IR-LED on)
° / 54° / 108°	96° / 54° / 108°	96° / 54° / 108°
Zones	3 Zones	3 Zones
	•	•
) m	30 m	20 m
	•	·
	•	
264, MJPEG	H.264, MJPEG	H.264, MJPEG
	•	
)x	10 x	10 x
	•	
	•	•
	•	
	•	•
	•	•
	•	•
	IP66	IP66
10 × 78mm	Φ65 × 164mm	Φ113 × 77.7mm
- 40°C	-30 ~ 50°C	-30 ~ 50°C
~ 80% RH (non-condensing)	20 ~ 80% RH (non-condensing)	20 ~ 80% RH (non-condensing)



### Video Management Software (VMS) Video Encoder

#### **DCS-100** D-ViewCam<sup>™</sup>

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

A comprehensive surveillance system designed to centrally manage multiple IP cameras for Home, Small Office Home Office (SOHO), or Small and Medium Business (SMB) users, it is compatible with all current D-Link IP cameras and video servers. It offers digital monitoring and recording capabilities of video, audio and events for various security applications, and the 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.



**Video Display** 



**Video Playback** 

#### **DCS-250** D-ViewCam<sup>™</sup> Plus

For larger organisations with more cameras in their network, there is D-ViewCam<sup>™</sup> 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, highresolution 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.

- 40 detection zones or lines
- Precise detection algorithm with up to 95% • accuracy

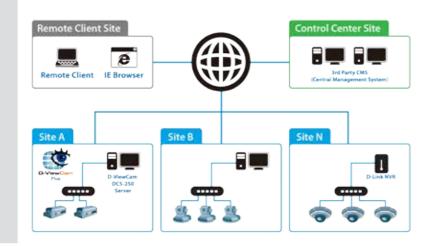
#### DCS-250-COU-001-LIC

#### **IVS Counting License**

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

- 40 detection zones and tracks up to 100 targets • per camera
- Self-learning algorithm automatically adapts to environment changes

### D-ViewCam (DCS-100) / D-ViewCam Plus (DCS-250) **Typical Network Set-up**



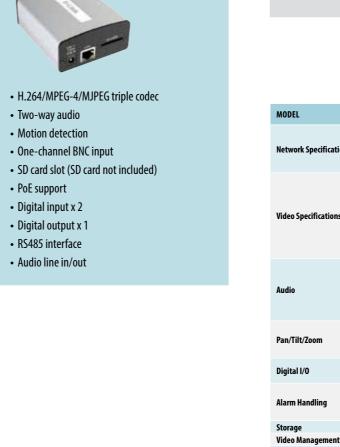
D-Link's high-performance, single-channel video encoder integrates existing analogue CCTV (closed circuit television) into an IP-based video surveillance system.

This video encoder is the ideal choice for businesses where surveillance equipment is already installed and functioning. The alarm handling features provide alerts in the event of loss of video or loss of network connection, and motion alarms with configurable detection areas allow for effective surveillance and help to mitigate the need for constant human supervision. A buffer system allows the server to capture images to the built-in SD card slot both before and after an event occurs.

**DVS-310-1** 

H.264 PoE Video Encoder

A video encoder also offers other benefits such as event management and advanced video and security functionalities. In addition, it provides scalability and ease of integration with other security systems.



Physical and Environmen

#### What is a Video Encoder?

Video encoders, also known as video servers, enable an existing analogue CCTV video surveillance system to be integrated with an IP-based network video system. Video encoders play an important role in installations where many analogue cameras already exist and are to be retained since they are still in good, functioning order.

#### **How Does it Work?**

A video encoder connects to an analogue video camera via a coaxial cable and converts analogue video signals into digital video streams that are then sent over a wired or wireless IP-based network (e.g. LAN, WLAN or Internet). To view and/or record the digital video signal, a computer can be used instead of DVRs, VCRs or analogue monitors. By using video encoders, analogue video cameras of all types, such as fixed, indoor/ outdoor, dome, pan/tilt/zoom, and other specialist cameras can be remotely accessed and controlled over an IP network.

#### What are the Benefits of a Video Encoder?



		DVS-310-1
	Interface	1 x 10/100BASE-TX
	802.3af PoE Compatible	
	Network Protocols	IPv4, DHCP, ARP, DNS, TCP/IP, DDNS (D–Link), HTTP, HTTPS, UPnP™, Port Forwarding, Samba, SMTP, PPPoE, NTP (D–Link), FTP, RTP, RTSP, UDP, RTCP, ICMP, 3GPP
	Video Format	MJPEG, MPEG-4, H.264
	Bit Rate	64 Kbps to 4 Mbps
	Supported Resolutions	PAL: D1 (720 x 576), CIF (352 x 288), QCIF (176 x 144) NTSC: D1 (720 x 480), CIF (352 x 240), QCIF (176 x 120)
	Video Input	1CH, NTSC/PAL, BNC Connector, 1.0 Vp-p with 75 $\Omega$ Loading
	Video Recording	Instant Local Video Recording
	Video Buffer	Pre/Post Buffer for Image/Video Capture
	Bidirectional Audio	•
	Audio Connector	3.5 mm Stereo Input/Output
	Audio Input	8 KHz Sample Rate, ADPCM
	Audio Output	8 KHz Sample Rate, ADPCM
	Audio Codec	G.726
	PTZ Connection	RS485
	PTZ Protocols	PelcoP, PelcoD, Merit Lilin, Visca, DynaColour, Transparent
	Baud Rate	1200, 1800, 2400, 4800, 9600, 19200
	Number of Inputs	2
	Number of Outputs	1
	Loss Detection	Video and Network Loss Detection
	Motion Detection	Hardware Based, Multiple Detection Areas
	Event Handler	Alerts by FTP and Email
	Local Storage	SD Card
re	D-ViewCam <sup>™</sup>	Compatible
	Dimension (L x W x H)	90 x 78 x 36 mm
	Weight	232 g
	Operating Temperature	0°C to 40°C
	Operating Humidity	20% to 80% RH Non-Condensing

## Network Video Recorders

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

•~~

mydlink

#### **DNR-312L**

mydlink™ Network Video Recorder with HDMI



• Accessible from the Internet with mydlink<sup>™</sup>

- One bay for SATA hard drive (not included)
- HDMI display output
- 2 x USB ports for keybaord/mouse control, storage backup, UPS status update
- Monitor and record up to nine cameras simultaneously using MJPEG, MPEG-4 or H.264 video formats
- HD recording (720p)
- Supports all D-Link cameras

## Cloud Network Video Recorder

**DNR-322L** 



- Accessible from the Internet with mydlink<sup>™</sup>
- USB port for UPS status update
  Two bays for SATA hard drives (not included)
- Slot for Kensington security lock
- Nine-channel IP camera recording
- Single-channel playback
- RAID 0/1 and JBOD
- HD recording (720p)
- Configurable recording schedules
  Supports all D-Link cameras
- Supports all D-LINK cameras

#### DNR-326 2-Bay Professional Network Video Recorder



•<\*

mydlink

- Two bays for SATA hard drives (not included) with optional RAID 1 protection
- USB port for UPS status update
- Support for all D-Link cameras as well as many third-party cameras (Axis, Panasonic, Sony, Mobotix, Cisco, etc)

•~

E

- Monitor and record up to nine cameras simultaneously using MJPEG, MPEG-4 or H.264 video formats
- SmartSearch technology to simplify event investigation
- Full HD recording (1080p)Digital watermark to prevent tampering on recorded files
- bigital watermark to prevent tampering on rece

#### DNR-2060-08P JustConnect<sup>™</sup> Multifunctional Network Video Recorder



- Six bays for SATA hard drives
- HDMI and VGA dual display outputs
- Front panel controls
- Auto discovery and auto configuration
   Monitor, record and play back up to eight cameras simultaneously using MJPEG, MPEG-4 or H.264 video formats
- Built-in PoE+ switch
- Supports all D-Link IP cameras

#### 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<sup>™</sup>?

mydlink<sup>™</sup> is a cloud-based platform that maintains a live link between your mydlink<sup>™</sup>-enabled product via the Internet and your mydlink<sup>™</sup> 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<sup>™</sup> product, and supporting smartphone or tablet app, to help you. Just look for the mydlink<sup>™</sup> logo...

		mydlink	mydlink		
MODEL		DNR-312L	DNR-322L	DNR-326	DNR-2060-08P
	Number of Channels	9	9	9	8
	Compression Format	H.264/MPEG-4/MJPEG	H.264/MPEG-4/MJPEG	H.264/MPEG-4/MJPEG	H.264/MJPEG
General	Maximum Recording Performance	H.264 at 720p at 270 fps	H.264 1080P: 90 Mbps H.264 720P: 90 Mbps MJPEG 1080P: 90 fps MJPEG 720P: 192 fps	H.264 1080P: 90 Mbps H.264 720P: 90 Mbps MJPEG 1080P: 90 fps MJPEG 720P: 192 fps	H.264 at 1080p at 240 fps
	Video Output	HDMI			HDMI, VGA
	Display Mode	1, 4, 9 Split Screen	1, 4, 6, 9, 16, 25, 36, 64 Split Screen	1, 4, 6, 9, 16, 25, 36, 64 Split Screen	1, 4, 8 Split Screen
Video Management	Auto Scan	•	•	•	
– Live View	PTZ Control		•	•	•
	Auto Pan/Patrol				•
	One-/Two-Way Audio	Two-Way Audio	One-Way Audio	One-Way Audio	One-Way Audio
	Recording Type	Schedule/ Manual/ Event (Motion)	Schedule/ Manual/ Event (Motion)	Schedule/ Manual/ Event (DI/ Motion)	Schedule/ Manual/ Event (DI/ Motion)
	Edge Motion Detection (by Camera)	•	•	•	•
	Pre-Recording/	• Pre-Rec: 60 seconds	Pre-Rec: 180 seconds	• Pre-Rec: 180 seconds	Pre-Rec: 70 seconds
Video Management	Post-Recording Period	Post-Rec: 300 seconds	Post-Rec: 180 seconds	Post-Rec: 180 seconds	Post-Rec: 70 seconds
– Recording	Audio Recording	•	•	•	•
	Auto Recycling (Disk Capacity)/				
	Scheduled Recycling (Days)	•	•	•	•
	Simultaneously Playback Channels	9	1	4	8
		Video Control (Play, Stop, Pause,	Video Control (Play, Stop, Pause,	Video Control (Play, Stop, Pause,	Video Control (Play, Stop, Pause,
	Playback Mode Digital Zoom Ratio	Forward, Backward, Next, Previous)	Forward, Backward, Next, Previous)	Forward, Backward, Next, Previous) 4 x	Forward, Backward, Next, Previous) 2 x
	-	16 x	4 x	4 X	2 X
	Audio Control	·	·	·	· (Test Time Fourt Course)
Video Management	Video Search (Factor)	(Time, Event, Camera)	<ul> <li>(Time, Event, Camera)</li> </ul>	(Time, Event, Camera)	<ul> <li>(Text, Time, Event, Camera)</li> </ul>
– Playback	Smart/ Intelligent Search (Factor)			(Motion Detection Missing/ Abandoned Object Lost Focus/ Camera Occlusion)	
	Video Enhancement		•	•	
	Video Export File Format	AVI	AVI/ASF (Time Stamp)	AVI/ASF (Time Stamp)	DRV/AVI/RAW
	Image Export File Format	BMP/JPG	BMP/JPG	BMP/JPG	JPG
	Tamper-Proof (Digital Watermark)	•	•	•	•
	I/O Control			•	•
	Event to Email	•	•	•	•
Event Management	Event to Alarm	•			•
	Event by Signal Lost	•		•	•
	Event by Disk Full	•	•	•	•
	Client Viewer	Browser/mydlink <sup>™</sup> View NVR APP	Browser/mydlink <sup>™</sup> Mobile App	Browser/Multi-NVR Viewer	Browser/JustConnect <sup>™</sup> + Mobile App
	Remote View	•	•	•	•
Remote Access	Concurrent Channels per Client (Max)	9	9	9	8
	Playback Viewer	Browser/ Playback Manager	Browser/ Playback Manager	Browser/ Playback Manager	Browser/ Playback Manager
	E-Map Layers	3	1	1	1
-Мар	E-Map Image Format	BMP/JPG	BMP/ JPG	BMP/ JPG	JPG
	Supported Cameras	D-Link	D-Link	D-Link and Third Party	D-Link
ompatibility	Auto Surveillance VLAN Support	•	•	•	
	Hard Disk Bays	• 1 x 3.5" SATA HDD, Max. 4TB	• 2 x 3.5″ SATA HDD, Max. 8TB	• 2 x 3.5" SATA HDD, Max. 8TB	6 x 3.5" SATA HDD, Max. 18TB
	Hard Disk Configuration	Single	Single, RAID 0 / 1, JBOD	Single, RAID 0 / 1, JBOD	Single
Hardware	NAS (File Server)	Jingic	Standard HDD Mode	Standard HDD Mode	Single
	Network Interface	1 x Gigabit Port	1 x Gigabit Port	1 x Gigabit Port	1 x Gigabit Port
	DoE Support				8 x 802.3at Fast Ethernet Ports
	PoE Support	LICD			802.3at (PoE+)
	Backup Options	USB			USB, eSATA
	Front Panel Controls				•
	Auto Boot-Up (Power Recovered)	•	•	•	•
	Dimensions	49.8 x 141.6 x 173 mm	115 x 146.4 x 178.5 mm	115 x 146.4 x 178.5 mm	90.4 x 440.4 x 450.9 mm
	Weight	425 g	875 g	875 g	9.02 Kg
	Power Consumption	30 W (Max) 0.337 W (Standby)	25.20 W (Max) 0.234 W (Standby)	25.20 W (Max) 0.234 W (Standby)	200 W (with PoE on)
	Operation Temperature	0°C to 40°C	0°C to 55°C	0°C to 55°C	0°C to 40°C
	mydlink <sup>™</sup> Functions	Live View, Playback, Disk/Camera Status			
	/	, , , , , , , , , , , , , , , , , , ,			



## Network Storage

Every business requires a reliable way of storing and backing up their data. D-Link provides a range of simple and cost-effective network storage products to meet any data management challenges. Products in this category include Network Attached Storage (NAS) devices such as the Cloud-enabled ShareCenter<sup>™</sup> 2-Bay and 4-Bay Storage Network Enclosures and rack-mountable unified storage appliances for larger businesses or enterprise-class levels of storage. With the former you can share, download, delete or upload documents, files and media content such as photos, presentations and videos on a network or remotely over the Internet via the secure mydlink™ portal or using the mydlink<sup>™</sup> Access-NAS app available for iPhone, iPad and Android devices, whilst the latter come with massive capacity capability and support for lightning-fast data throughput via Gigabit Ethernet connections.

## Range Overview

### Network Attached Storage (NAS)



#### **Unified Storage Appliances**



#### What is Network **Attached Storage?**

Network Attached Storage, or NAS for short, is essentially one or more hard drives, usually stored within a dedicated enclosure, that acts as a repository for files that all users on the network can access (provided they have the required software permissions). NAS devices are particularly important in businesses where multiple users want to share the same information and have quick and easy access to it. All D-Link's NAS devices come as standard with mydlink<sup>™</sup>, our multi-level cloud access platform.

#### What is mydlink<sup>™</sup>?

mydlink<sup>™</sup> is a cloud-based platform that maintains a live link between your router via the Internet and your mydlink<sup>™</sup> 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 automate, there is a mydlink<sup>™</sup> product, and supporting smartphone or tablet app, to help you. Just look for the mydlink<sup>™</sup> logo... mydlink

### Key

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



Devices will seamlessly discover each other's presence and establish functional services



Uses D-Link's cloud to store and access saved content and monitor remotely in real time





## Network Attached Storage (NAS)

D-Link's Network Attached Storage solutions are designed to provide simple, reliable network storage for businesses of all sizes. These NAS devices can be easily deployed to provide centralised file sharing and set to protect data on any network. What's more, with the mydlink<sup>™</sup> Cloud, data stored on these devices can be accessed from any Internet-connected device, whether in the office or on the move.

UPnP

😌 dina

mydlink



#### **DNS-320L** ShareCenter<sup>™</sup> 2-Bay **Cloud Network Storage Enclosure**



- Two 3.5" internal SATA hard drive bays with capacity for up to 12 TB of storage (6 TB per bay)<sup>1</sup>
- Disks can be RAID-configured for maximum capacity or maximum data security, depending on requirements
- USB 2.0 port for printer sharing or external backup disk
- Access your files from anywhere with mydlink<sup>™</sup> cloud services
- Gigabit Ethernet for high-speed data transfer
- Multiple management options for control and notification
- Supports up to 256 users
- Media streaming including peer-to-peer download engine

#### Hard drives not include





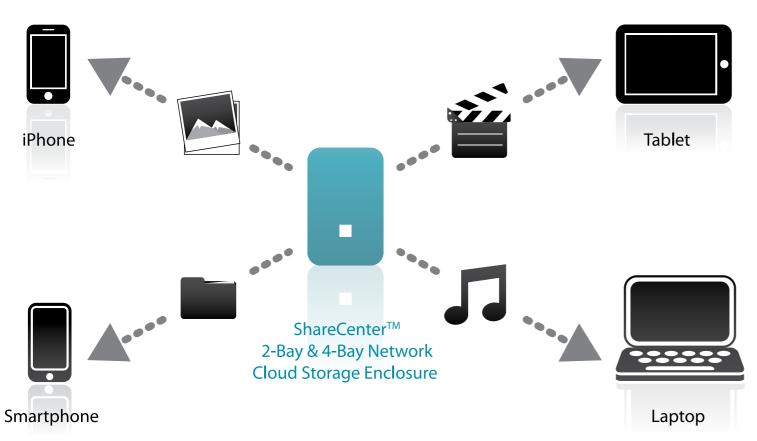
- Two 3.5" internal SATA hard drive bays with capacity for up to 12 TB of storage (6 TB per bay)<sup>1</sup>
- Disks can be RAID-configured for maximum capacity or maximum data security, depending on requirements
- Stream digital content to compatible DLNA media players • USB 3.0 port for printer sharing or external backup disk
- Includes smart library applications
- Remotely access/manage data or built-in applications from anywhere using the mydlink<sup>™</sup> mobile device app or on a computer through the mydlink<sup>™</sup> portal



DNC 2401	
DNS-340L	
ShareCenter™+ 4-Bay	
· · · · · · · · · · · · · · · · · · ·	
Cloud Network Storage Enclosure	



- Four 3.5" internal SATA hard drive bays with capacity for up to 24 TB of storage (6 TB per bay)<sup>1</sup>
- Access files from anywhere on any computer or on iOS and Android smartphones and tablets with the free mydlink<sup>™</sup> Access-NAS app
- Zero-configuration technology for easy set-up
- Multiple RAID types for a wide array of storage options
- Dual-Gigabit Ethernet for high-speed data transfer
- Multiple back-up options including Apple Time Machine
- Multiple USB 2.0 and 3.0 ports for sharing additional storage or adding a network printer



		Mydink	mydink	mydink
MODEL		DNS-320L	DNS-327L	DNS-340L
	Number of Bays	2	2	4
Storage Features	Max Capacity <sup>1</sup>	12 TB	12 TB	24 TB
	Supported Drive Type	3.5" Internal SATA I/II with Capacity of up	to 6 TB per Bay	
	CPU Speed	1 GHz	1.2 GHz	1.2 GHz
Hardware and	Dual-Core CPU			•
Performance	SDRAM	256 MB 66 MB/s	512 MB	512 MB 90 MB/s
	Maximum Throughput (Read) Ethernet		81.8 MB/s	
	Interfaces USB	1 x Gigabit 1 x USB 2.0	1 x Gigabit 1 x USB 3.0	2 x Gigabit 1 x USB 3.0, 2 x USB 2.0
	802.3ad Link Aggregation	1 X 030 2.0	1 X 030 3.0	•
	iSCSI			
	File System	CIFS, NFS, Web File Manager	CIFS, NFS, Web File Manager	CIFS, NFS, Web File Manager
		AFP, WebDAV	AFP, WebDAV	AFP, WebDAV
N. A	Active Directory			•
Network	VLAN Support Media Server			•
	FTP Server			
	User/Group Quotas			
	Dynamic DNS	•	•	•
	USB Drive Support			
	USB Print Server Support			
	USB UPS Monitoring	•		
	RAID Controller	Single	Single	Single
	RAID Support	RAID 0/1 JBOD Standard	RAID 0/1 JBOD Standard	RAID 0, 1, 5, 10, 5+Hot Spare, JBOD, Standard
Volume	Target Nodes			
and RAID	Hot-Swappable Drives	•	•	•
	Free-Space Defragmentation			
	S.M.A.R.T.	•	•	
	Thin Provisioning			
	Volume Snapshots Virtual Disks			
	My Photos			
	My Files	•		
	My Music	•		
	My Surveillance/Surveillance Center	•	•	•
Applications and	P2P Download			
Third-Party	FTP/HTTP Download	•	•	•
Add-On Support	Remote Backup	•	•	•
	Local Backup	•	•	•
	Amazon S3 Backup	•	•	•
	D-Link Vault		•	•
	Third Party Add-On Support			
	Web-Based GUI	HTTP, HTTPS	HTTP, HTTPS	HTTP, HTTPS
Storage	Easy Search Utility	•	•	•
Management	Firmware Upgradable Email Alerts			
	SNMP	•	-	
	Display			•
	Power Supply Type	External	• External	• External
Physical and	Dimensions	90 x 144.3 x 193.3 mm	90 x 144.3 x 195.3 mm	185 x 146 x 217.4 mm
Environment	Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C
	Operating Humidity	5% to 90% RH Non-Condensing	5% to 90% RH Non-Condensing	0% to 90% RH Non-Condensing

#### What is mydlink<sup>™</sup>?

mydlink<sup>™</sup> is a cloud-based platform that maintains a live link between your router via the Internet and your mydlink<sup>™</sup> 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 automate, there is a mydlink<sup>™</sup> product, and supporting smartphone or tablet app, to help you. Just look for the mydlink<sup>™</sup> logo... mydlink

### What does RAID mean?

all the disks in the array.



A Redundant Array of Independent Disks (RAID) (sometimes referred to as a Redundant Array of Inexpensive Disks) is where data is spread across multiple hard disks, optionally together with error correction data to enable the array to continue working in the event of one or, in some cases, two disk failures. RAID protection can be implemented in software or, for better performance, at hardware level using a RAID disk controller. Different levels of RAID are available, popular options being simple mirroring of disks, RAID 1, and RAID 5 where data and error correction information is striped across

# Unified Storage Appliances with NAS and iSCSI

Unified appliances offer all the benefits of NAS in terms of server-like network file sharing with management via an easy to use browser interface. In addition, however, they can also be used to provide block-level access to storage in the appliance using the iSCSI protocol.

vmware READY



- 1U rack-mount format
- Hot-swappable 3.5" drive bays
- Redundant hot-swappable power supplies
- Dual-core processor plus 2 GB RAM
- RAID 6 to protect against two drive failures at once
- Network file sharing on mixed Windows, Mac OS and Linux networks
- Up to 32 volume snapshots
- HTTPS and FTP support plus DDNS for simplified
   remote access
- Block-level iSCSI data transfers with up to 64 iSCSI targets
- Two auto-sensing Gigabit Ethernet ports with link aggregation and automatic failover/failback
- Five USB ports for printer, flash drive and external disk attachment plus UPS monitoring
- Integrated backup support including backup to the cloud
   Bundled client software for backup of Windows PCs plus Apple Time Machine Support

### DNS-1560-04

- ShareCenter<sup>™</sup> Pro 1560 Rack-Mount
- Unified Appliance



Windows Server 2009

- 1U rack-mount format
- Hot-swappable 3.5" drive bays
- Redundant hot-swappable power supplies
  Dual-core processor plus 4 GB RAM
- Network file sharing on mixed Windows, Mac OS and Linux networks
- Virtual disks with thin provisioning
- De-duplication support
- Up to 32 volume snapshots
- HTTPS and FTP support plus DDNS for simplified remote access
- Block-level iSCSI data transfers with up to 64 iSCSI targets
  Two auto-sensing Gigabit Ethernet ports with link
- aggregation and automatic failover/failback
   Two USB ports for printer, flash drive and external disk
- attachment plus UPS monitoring

  Integrated backup support including backup to the cloud
- Bundled client software for backup of Windows PCs plus Apple Time Machine Support

1	
dlink	green

MODEL		DNS-1550-04	DNS
	Number of Bays	4	4
Storage Features	Maximum Capacity	24 TB	24 TB
	Drive Type		
Hardware and	CPU Speed	Dual Core 1.8 GHz	Dual
Performance	SDRAM	2 GB	4 GB
	Maximum Throughput (Read)	89 MB/s	120 N
	Interfaces Ethernet	2 x Gigabit	2 x Gi
	USB	5 x USB 2.0	2 x U
	802.3ad Link Aggregation	•	•
	iSCSI	•	•
	File System	CIFS/SMB, NFS, DFS, AFP	SMB/
	Active Directory	•	•
Network	VLAN Support	•	•
	Media Server	•	•
	FTP Server		
	User/Group Quotas	•	•
	Dynamic DNS		
	USB Drive Support	•	•
	USB Print Server Support	•	•
	USB UPS Monitoring	•	•
	RAID Controller	Single (Module)	Singl
	RAID Support	0, 1, 5, 6, 10 and JBOD	0, 1, 5
	Target Nodes	64	64
	Hot-Swappable Drives	•	•
	Free Space Defragmentation	•	•
Volume	S.M.A.R.T.	•	•
and RAID	Thin Provisioning		•
	Compression		·
	De-Duplication		•
	Volume Snapshots	•	•
	Virtual Disks	•	•
	ZFS file system		•
	Web-Based GUI	HTTP, HTTPS	HTTP,
	Easy Search Utility	•	•
Storage	Firmware Upgradable	•	•
Management	Email Alerts	•	·
	SNMP	•	•
	Integrated Anti-Virus		• (3-)
	Display		
Physical and	Power Supply Supply Type	Internal, 226 W (Redundant, 80 PLUS Certified)	Inter (Redu
Environment	Dimensions	429 x 442 x 44 mm	533.4
	Operating Temperature	5°C to 35°C	5°C to

#### 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.

#### What does iSCSI mean?

An implementation of the block-level SCSI (Small Computer System Interface) disk protocol for use on IP networks, iSCSI enables a Storage Area Network (SAN) to be implemented using ordinary Ethernet cabling and switches rather than more complex and expensive Fibre Channel hardware. An iSCSI target is a volume on a storage array. An iSCSI initiator is the hardware/software that connects an iSCSI target to a host server.

#### What is Failover?

Failover is the automatic switching to a redundant or standby server, system, hardware component or network upon the failure or unexpected termination of the previously active server, system, hardware component or network. Failover and switchover are essentially the same thing, except that failover is automatic and usually operates without warning, while switchover requires human intervention.

#### What does RAID mean?

A Redundant Array of Independent Disks (RAID) (sometimes referred to as a Redundant Array of Inexpensive Disks) is where data is spread across multiple hard disks, optionally together with error correction data to enable the array to continue working in the event of one or, in some cases, two disk failures. RAID protection can be implemented in software or, for better performance, at hardware level using a RAID disk controller. Different levels of RAID are available, popular options being simple mirroring of disks, RAID 1, and RAID 5 where data and error correction information is striped across all the disks in the array. dlin

nkigreen	
Constraint of	Concerning of the local division of the loca
1560-04	

Core1.86 GHz

MB/s Sigabit JSB 2.0

CIFS, NFS, AFP, FTP, WebDAV

gle (Module) . 5. 10 and JBOD

10 and JBOL

HTTPS

year McAfee license included)

ernal, 226 Ws dundant, 80 PLUS Certified) 4.4 x 442 x 44 mm to 35°C 6 to 85% RH Non-Condensing



### Expect instant help if the unexpected happens

If the unexpected happens to your network, you need the very best support, and you need it fast, because downtime costs your business money. D-Link Assist maximises your uptime by solving technical problems quickly and effectively thanks to our highly trained technicians who are on standby around the clock, ensuring that award-winning support is only a phone call away.

#### Comprehensive Cover Available Across all D-Link Business Products

D-Link Assist can be purchased together with any D-Link business product. So whether you're buying switching, wireless, storage, security or video surveillance equipment from D-Link, your peace of mind is guaranteed.

D-Link Assist also offers installation and configuration services to get your new hardware working quickly and correctly.

As standard, when you purchase a D-Link product we will exchange it should something go wrong.<sup>1</sup>

### Convenient Choice of Three Service Levels to Suit Your Needs

**D-Link Assist Gold** For comprehensive 24-hour support

#### **D-Link Assist Silver**

For prompt same-day assistance

#### **D-Link Assist Bronze**

For guaranteed next business day response

#### Peace of Mind from our Award-Winning Support Services

Plug into our network of highly trained specialists who will act quickly to diagnose your problem and take instant corrective action.

#### Choose the Enhanced Service Level That is Right For You

With a choice of three affordable service offerings covering all D-Link business products, you can select the package that suits you best.

#### Get Expert Help With Your Installation and Configuration

Available on selected products, D-Link Assist can help you get your new hardware up and running with the minimum of fuss.

Installation services include unpacking, quality inspection, interconnection with host server, and installation and integration of software.<sup>2</sup>

#### Benefit From D-Link's Global Reach and Local Support

Established in 1986, D-Link has evolved to become a billion dollar global enterprise with 160 offices across 71 countries.

With highly trained technicians on standby across Europe you can be sure of the very best in local support, wherever you are.

#### **Dare to Compare**

D-Link Assist offers remarkable value service of the highest quality at a very reasonable price. We challenge you to find a more competitive technical support solution.

#### Why D-Link?

D-Link is one of the world's leading network infrastructure companies, providing a complete end-to-end solution including switching, storage, video surveillance, wireless and data security, ensuring interoperability from one vendor, with award-winning support.

For nearly 30 years, D-Link has designed, developed and manufactured award-winning networking and communications products. We pride ourselves on consistently delivering innovative, high-performing and intuitive products for businesses.

With D-Link technology, you can increase network performance and cut operational costs.

D-Link delivers its extensive range of networking products to organisations and consumers through its global network of channel partners and service providers. It understands the significance of accessing, managing, securing and sharing data and digital content, and has pioneered many IP technologies to deliver a fully integrated digital home and business network experience.



#### For Comprehensive 24-Hour Support

D-Link Assist Gold is perfect for mission-critical environments where maximum uptime is a high priority. It guarantees four-hour around-the-clock response and cover applies 24/7 for every day of the year, including holidays.



#### For Prompt Same-Day Assistance

D-Link Assist Silver is designed for 'high-availability' businesses that require rapid response within regular working hours. It provides a four-hour response service Monday to Friday from 8am to 5pm, excluding holidays.

## D-LinkAssist

### For Guaranteed Response on the Next Business Day

D-Link Assist Bronze is a highly cost-effective support solution for less critical environments. Response is guaranteed within eight business hours, Monday to Friday from 8am to 5pm, excluding holidays.

#### Longer warranty for longer life. For extra reassurance, D-Link

Assist gives you the option of extending warranties by three years on any D-Link business products that you purchase.

D-Link Assist is currently available in the following countries: Austria, Belgium, Czech Republic, Denmark, Finland', France, Germany, Hungary, Republic of Ireland, Italy', Luxembourg, Monaco, The Netherlands, Norway', Poland, Portugal', San Marino', Spain', Sweden', Switzerland', United Kingdom and Vatican.







## Index

Introduction to Business Solutions	2
Key Solutions from D-Link	4
Introduction to Switches	8
Introduction to Power over Ethernet (PoE)	10
xStack Chassis Switches DGS-6604-SK DGS-6608-SK	<b>12</b> 12 12
Layer 3 10 Gigabit Stackable Managed Switches DXS-3600-16S DXS-3600-32S	<b>14</b> 14 14
<b>xStack Layer 3 Gigabit Stackable Managed Switches</b> DGS-3620-28TC DGS-3620-28SC DGS-3620-28PC DGS-3620-52T DGS-3620-52P	<b>16</b> 16 16 16 16 16
<b>xStack Layer 2+ Gigabit Stackable Managed Switches</b> DGS-3420-28TC DGS-3420-28SC DGS-3420-28PC DGS-3420-52T DGS-3420-52P	<b>18</b> 18 18 18 18 18 18
xStack Layer 2 Gigabit Stackable Managed Switches DGS-3120-24TC DGS-3120-24PC DGS-3120-24SC DGS-3120-48TC	20 20 20 20 20 20
DGS-3120-487C	20
Layer 2 Gigabit Managed Switch DGS-3000-10TC	<b>22</b> 22
xStack Layer 2 Fast Ethernet Managed Switches DES-3200-10 DES-3200-18 DES-3200-28 DES-3200-28P DES-3200-52 DES-3200-52P	24 24 24 24 24 24 24 24 24
10 Gigabit Ethernet Smart Managed Switches DXS-1210-10TS DXS-1210-12TC	24 26 26 26
Gigabit Stackable Smart Managed Switches DGS-1510-20 DGS-1510-28 DGS-1510-28P DGS-1510-28X DGS-1510-28X DGS-1510-52 DGS-1510-52X	28 28 28 28 28 28 28 28 28 28 28
<b>Gigabit Smart+ Switches with Fibre Uplinks</b> DGS-1210-10 DGS-1210-10P DGS-1210-20 DGS-1210-28 DGS-1210-28P	<b>30</b> 30 30 30 30 30 30
DGS-1210-52 DGS-1210-52P DGS-1210-52MP	30 30 30
<b>Gigabit Smart Switches with Fibre Uplinks</b> DGS-1210-08P DGS-1210-16 DGS-1210-24 DGS-1210-24P DGS-1210-48	32 32 32 32 32 32 32

	and the set for the set
	ernet Smart Switches
DES-121	0-08P
DES-121	0-28
DES-121	0-28P
DES-121	0-52
Gigabit	Smart Switches
DGS-110	
DGS-110	0-24P
DGS-110	
	ernet Smart Switches
DES-110	
DES-110	
Gigabit	Unmanaged Switches
DGS-100	
DGS-100	8D
DGS-100	
DGS-100	8MP
DGS-101	
DGS-102	
DGS-105	
DGS-108	
Fast Fth	ernet Unmanaged Switches
DES-100	
DES-100	8D
DES-100	SP
DES-100	8PA
DES-100	8F
DES-101	
DES-101	8D
DES-101	8MP
DES-102	4D
DES-102	עד
DES-105	
	7 Network Management System
DV-700	
	P Transceivers
DEM-210	)
DEM-210 DEM-211	) I
DEM-210 DEM-211 DEM-310	)   )GT
DEM-210 DEM-211 DEM-310 DEM-311	)    GT  GT
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312	)    GT  GT 2GT2
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-314	) 1 0GT 1GT 2GT2 4GT
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312	) 1 0GT 1GT 2GT2 4GT
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-314 DEM-431 DEM-431	) I IGT 2GT2 4GT IXT IXT-DD
DEM-210 DEM-211 DEM-310 DEM-312 DEM-312 DEM-314 DEM-431 DEM-431 DEM-432	) I IGT 2GT2 4GT IXT IXT-DD 2XT
DEM-210 DEM-211 DEM-310 DEM-312 DEM-312 DEM-314 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432	) I IGT 2GT2 4GT IXT IXT-DD 2XT 2XT-DD
DEM-210 DEM-211 DEM-310 DEM-312 DEM-312 DEM-314 DEM-431 DEM-431 DEM-432	) I IGT 2GT2 4GT IXT IXT-DD 2XT 2XT-DD
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-421	) I IGT 2GT2 4GT IXT IXT-DD 2XT 2XT-DD IXT
DEM-210 DEM-211 DEM-310 DEM-312 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432	) IGT IGT 2GT2 4GT IXT IXT-DD 2XT-DD IXT <b>ant Power Supplies</b>
DEM-210 DEM-211 DEM-310 DEM-312 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-43	) IGT IGT 2GT2 4GT IXT IXT-DD 2XT-DD IXT <b>ant Power Supplies</b>
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-420 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-200 DEM-20	) IGT IGT 2GT2 4GT IXT IXT-DD 2XT 2XT 2XT 2XT IXT <b>ant Power Supplies</b>
DEM-210 DEM-211 DEM-310 DEM-312 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-43	) IGT IGT 2GT2 4GT IXT IXT-DD 2XT 2XT 2XT 2XT IXT <b>ant Power Supplies</b>
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-312 DEM-312 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-500 DPS-500 DPS-700 DPS-800	) IGT IGT 2GT2 4GT IXT IXT 2XT-DD 2XT 2XT-DD IXT <b>ant Power Supplies</b>
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-430 DEM-500 DPS-500 DPS-700 DPS-800 Switch (	) I GT IGT 2GT2 4GT IXT IXT 2XT-DD 2XT 2XT-DD IXT <b>ant Power Supplies</b> Cables
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-500 DPS-200 DPS-500 DPS-700 DPS-700 DPS-800 Switch ( DEM-CBS)	) I GT IGT 2GT2 4GT IXT IXT-DD 2XT-DD IXT <b>ant Power Supplies</b> 50
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-500 DPS-200 DPS-500 DPS-700 DPS-800 Switch ( DEM-CB2 DEM-CB2 DEM-CB2	) I IGT IGT 2GT2 4GT IXT IXT-DD 2XT 2XT-DD IXT <b>ant Power Supplies</b> 50 50 50 50 50 50 50
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-500 DPS-2000 DPS-5000 DPS-5000 DPS-5000 DPS-8000 DPS	) I IGT 2GT2 4GT IXT IXT-DD 2XT 2XT-DD IXT <b>ant Power Supplies</b> Cables 50 50CXP 50TCX
DEM-210 DEM-211 DEM-310 DEM-311 DEM-311 DEM-311 DEM-431 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C85 DEM-C85 DEM-C85	) I IGT 2GT2 4GT IXT IXT-DD 2XT 2XT-DD IXT <b>ant Power Supplies</b> Cables 50 50 50 50 50 50 50 50 50 50 50 50 50
DEM-210 DEM-211 DEM-310 DEM-311 DEM-311 DEM-311 DEM-431 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-68 DEM-68 DEM-68 DEM-68 DEM-68 DEM-68	) I JOGT JGT JGT 2GT2 4GT IXT IXT-DD 2XT 2XT-DD IXT <b>ant Power Supplies</b> 50 50 50 50 50 50 50 50 50 50
DEM-210 DEM-211 DEM-310 DEM-311 DEM-311 DEM-311 DEM-311 DEM-431 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83	0 1 1 1 1 1 1 1 1 1 1 1 1 1
DEM-210 DEM-211 DEM-310 DEM-311 DEM-311 DEM-311 DEM-431 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-68 DEM-68 DEM-68 DEM-68 DEM-68 DEM-68	) I IGT IGT 2GT2 4GT IXT-DD 2XT 2XT-DD IXT IXT IXT IXT IXT IXT IXT IXT
DEM-210 DEM-211 DEM-310 DEM-311 DEM-312 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM	Cables 50 50 50 50 50 50 50 50 50 50
DEM-210 DEM-211 DEM-310 DEM-311 DEM-311 DEM-312 DEM-311 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C83	Cables Cables Contemposities Cables Source
DEM-210 DEM-211 DEM-310 DEM-311 DEM-311 DEM-312 DEM-311 DEM-311 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C83	) I IGT IGT 2GT2 4GT IXT IXT-DD 2XT 2XT-DD IXT IANT Power Supplies Cables 50 50 50 50 50 50 50 50 50 50
DEM-210 DEM-211 DEM-311 DEM-311 DEM-312 DEM-312 DEM-312 DEM-312 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-410 DPS-20	2 1 1 1 1 1 1 1 1 1 1 1 1 1
DEM-210 DEM-211 DEM-311 DEM-311 DEM-312 DEM-312 DEM-312 DEM-312 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-410 DPS-20	2 1 1 1 1 1 1 1 1 1 1 1 1 1
DEM-210 DEM-211 DEM-311 DEM-311 DEM-311 DEM-312 DEM-311 DEM-311 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C83 DEM-510 DEM-410 DMC-515	2 1 1 1 1 1 1 1 1 1 1 1 1 1
DEM-210 DEM-211 DEM-311 DEM-311 DEM-311 DEM-312 DEM-311 DEM-311 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83 DEM-C83	2 1 1 1 1 1 1 1 1 1 1 1 1 1
DEM-210 DEM-211 DEM-310 DEM-311 DEM-311 DEM-312 DEM-314 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C83	Cables 50 50 50 50 50 50 50 50 50 50
DEM-210 DEM-211 DEM-310 DEM-311 DEM-311 DEM-311 DEM-311 DEM-311 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-	2 1 1 1 1 1 1 1 1 1 1 1 1 1
DEM-210 DEM-211 DEM-311 DEM-311 DEM-311 DEM-312 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C83 DEM-530 DEM-630	2 1 1 1 1 1 1 1 1 1 1 1 1 1
DEM-210 DEM-211 DEM-311 DEM-311 DEM-312 DEM-312 DEM-312 DEM-312 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-683 DEM-C8	2 1 1 1 1 1 1 1 1 1 1 1 1 1
DEM-210 DEM-211 DEM-311 DEM-311 DEM-311 DEM-312 DEM-312 DEM-312 DEM-431 DEM-431 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-432 DEM-68 DEM-C83 DEM-530 DEM-630	2 1 1 1 1 1 1 1 1 1 1 1 1 1

			Fixed Netw
			DCS-2210L
			DCS-3112 DCS-3710
			DCS-3710
Power over	Ethernet (PoE) Adapters	51	Fixed Netw
DWL-P50	Luiemet (rot) Adapters	51	DCS-2310L
DWL-P200		51	DCS-7010L
DPE-101GI		51	DCS-7110
Introduction	n to Business Wireless	52	DCS-7413
Introduction	n to Wireless AC	53	DCS-7513
Standalone	Wireless Access Points	56	Panoramic
DAP-1665	Mileiess Access Folines	56	DCS-6004L
DAP-2310		56	DCS-6010L
DAP-2360		56	Fixed Netw DCS-2330L
DAP-2553		56	DCS-2330L
DAP-2590 DAP-2690		56 56	Fixed Dome
DAP-2660		58	DCS-6113
DAP-2695		58	DCS-6210
DAP-3310		58	DCS-6314
DAP-3410		58	DCS-6315
DAP-3690 DAP-3662		58 58	DCS-6511 DCS-6513
	Managan		
Central WiFi CWM-100	manager	60 60	Pan, Tilt, Zo DCS-5009L
	eless Access Points	62	DCS-5020L
DWL-2600AP		62	DCS-5222L
DWL-3600AP		62	DCS-5615
DWL-6600AP		62	DCS-6616
DWL-6700AP		62	DCS-6915
DWL-8600AP		62	Vigilance R
DWL-8610AP		62	DCS-4201 DCS-4602EV
DWS-3160-24	ed/Wireless Access System	<mark>64</mark> 64	DCS-4602LV
DWS-3160-24		64	DCS-4701E
DWS-4026	nc	66	DCS-4802E
Wireless Cor	ntroller	68	Network Ca
DWC-1000		68	DCS-32-2
DWC-2000		68	DCS-34-3 DCS-34-4
Antennas ar		70	DCS-34-4 DCS-80-6
ANT50-2000N		70	D-ViewCam
ANT24-CB03N ANT24-CB06N		70 70	DCS-100 / DC
ANT24-CB00N ANT24-CB09N		70 70	Video Enco
	twork Adapters	71	DVS-310-1
DWA-182	thorn nuapters	71	Network Vi
DWA-171		71	DNR-312L
DWA-172		71	DNR-322L
DWA-582		71	DNR-326
VPN Security	y Routers	72	DNR-2060-0
DSR-150N		72	Introductio
DSR-250N DSR-500N		72 72	Network At
DSR-1000N		72	DNS-320L
	n to Video Surveillance	74	DNS-327L DNS-340L
	ork Cameras (Wired/Wireless		Unified Sto
DCS-930L	via cumeras (wireu/ wireless	76	DNS-1550-04
DCS-932L		76	DNS-1560-04
DCS-933L		76	D-Link Assis
DCS-942L		76	
DCS-2132L DCS-2136L		76 76	
DCS-2130L DCS-2230L		76	
DCS-7000L		76	

twork Cameras (Wired – Indoor)	78	
L	78	
	78 78	
	78	
twork Cameras (Wired – Outdoor)	80	
L	80	
DL	80	
	80	
	80 80	
nic and Mini Dome Cloud Cameras	82	
	82	
)Ĺ	82	
twork Cameras (Wireless – Outdoor)	83	
L	83	
2L	83	
me Network Cameras (Wired)	84	
	84	
	84 84	
	84	
	84	
	84	
, Zoom (PTZ) Network Cameras	86	
PL	86	
)L /L	86 86	
L	86	
	86	
	86	
e Range Cameras	88	
	88	
EV	88 88	
, E	00 88	
Ē	88	
Camera Accessories	89	
	89	
	89	
	89 89	
am Video Managoment Coftware	90	
am Video Management Software / DCS-250	90 90	
coder	91	
1	91	
Video Recorders	92	
	92	
L	92	
	92	
D-08P	92	
tion to Network Storage	94	
Attached Storage (NAS)	<b>96</b>	
-	96 96	
-	96 96	
Storage Appliances with NAS and iSCSI	98	
)-04	98	
)-04	98	
ssist	100	

## D-Link (Europe) Ltd

With our innovative approach to computer networking, D-Link helps you connect to more of everything. From relatively modest beginnings, the company has grown over the last 29 years into an exciting global brand which is at the forefront of the very latest networking and IP surveillance technologies. With European offices in more than 30 countries, D-Link is well placed to serve your business needs.

Albania	Denmark	Luxembourg	Romania
Austria	Finland	FYR Macedonia	Serbia
Belgium	France	Malta	Slovakia
Bosnia and	Germany	Montenegro	Slovenia
Herzegovina	Greece	Netherlands	Spain
Bulgaria	Hungary	Norway	Sweden
Croatia	Italy	Poland	Switzerland
Czech Republic	Kosovo	Portugal	UK and Ireland

#### **Disclaimers and Trademarks**

D-Link is a registered trademark of D-Link Corporation and its subsidiaries. D-ViewCam, D-ViewCam Plus, xStack, SecuriCam, mydlink, xStack, SafeGuard Engine, D-Link Green, D-Link Assist and others registered by D-Link which may have not been included in this list are trademarks or registered trademarks of of D-Link Corporation and/or D-Link Europe Ltd in Europe and/or other countries. Other brand and product names may be the trademarks and properties of their respective holders. All information is subject to change without notice. All rights reserved. Copyright ©2015 D-Link Europe Limited.

#### **Exclusions of Liability**

We have used all reasonable endeavours to ensure that the data within this Business Solutions Guide is accurate at the time of going to press and to correct any errors or omissions as soon as practicable after being notified of them. Guide specifics are subject to change without notice.



For further information visit www.dlink.com

