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Building Networks for People



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Business Solutions Product Guide  
Networking and  
IP Surveillance Solutions

# Contents

## 1 Business Solutions

### 2 Key Solutions

## 4 Switches

### xStack Switches

#### 6 xStack Chassis Switches DES-7200 Series

#### 8 xStack Chassis Switches DGS-6600 Series

#### 10 xStack Gigabit Layer 3+ Managed Switches DGS-3620 Series

#### 12 xStack Gigabit Layer 3+ Switches DGS-3600 Series

#### 14 xStack Layer 2+ Managed Stackable Gigabit Switches DGS-3420 Series

#### 16 xStack Gigabit Layer 2+ Switches DGS-3400 Series

#### 18 xStack Fast Ethernet Layer 2+ Switches DES-3528/DES-3552 Series

#### 20 xStack Gigabit Layer 2 Security Switches DGS-3200 Series

#### 22 xStack Fast Ethernet Layer 2 Metro Ethernet Switches DES-3200 Series

#### 24 xStack Layer 2 Stackable Gigabit Switches DGS-3120 Series

### Managed Switches

#### 26 Gigabit Layer 2 Managed Switches DGS-3100 Series

#### 28 Fast Ethernet Layer 2 Managed Switches DES-3028/DES-3052 Series

### Smart Switches

#### 30 SmartPro Series Switches DGS-1500 Series

#### 32 Gigabit Smart Switches DGS-1210 Series

#### 34 Fast Ethernet Smart Switches DES-1210 Series

#### 36 Gigabit EasySmart Switches DGS-1100 Series

#### 38 Fast Ethernet EasySmart Switches DES-1100 Series

### Unmanaged Switches

#### 40 Gigabit Unmanaged Switches DGS-1000 Series

#### 42 Fast Ethernet Unmanaged Switches DES-1000 Series

### Software and Accessories

#### 44 Network Management D-View 6.0

#### 46 SFP/XFP Transceivers

#### 47 Redundant Power Supplies

#### 48 Modules and Media Converters

#### 49 Power over Ethernet (PoE)

## 50 Business Wireless

#### 52 Wireless N Access Points DAP and DWL Series

#### 53 Wireless A/G Access Points DWL Series

#### 54 Unified Wired/Wireless Access System DWS-4000 Series

#### 56 Unified Wired/Wireless Access System DWS-3000 Series

#### 58 Wireless Controller DWC-1000

#### 60 Antennas - Single Band (2.4 GHz) ANT Series

#### 61 Antennas - Dual Band (2.4/5 GHz) ANT Series

## 62 Security

#### 63 Unified Services Routers

## 64 IP Surveillance

#### 66 Fixed IP Cameras (Wireless)

#### 68 Fixed IP Cameras (Wired)

#### 72 Fixed Dome IP Cameras

#### 74 Pan, Tilt, Zoom (PTZ) IP Cameras

#### 76 Video Encoders

#### 78 Network Video Recorders

#### 80 D-ViewCam Video Management Software (VMS)

#### 81 Network Camera Accessories

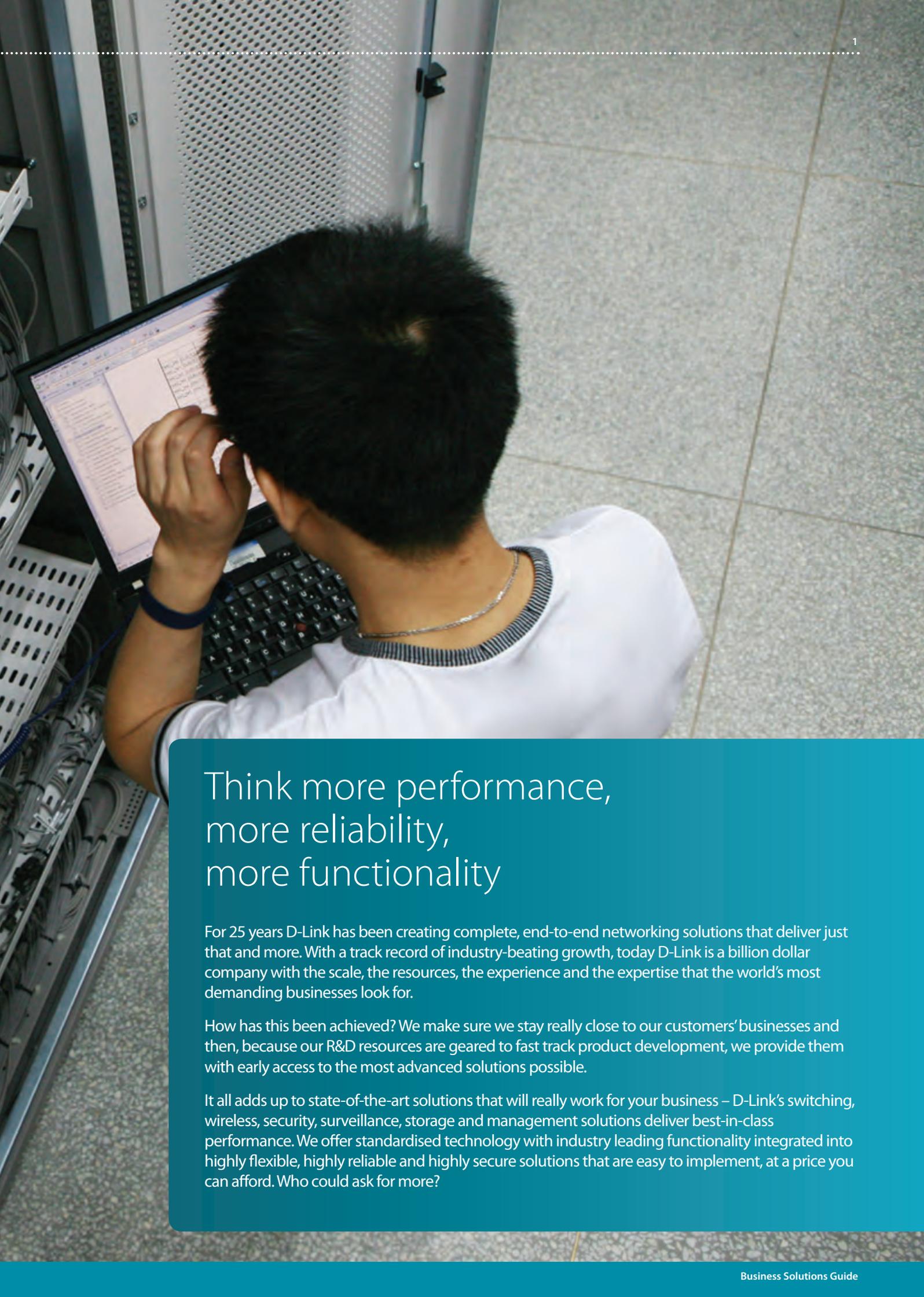
## 82 Network Storage

#### 84 Storage Area Network Arrays (IP SAN)

#### 86 Network Attached Storage (NAS)

## 88 D-Link Assist

## 89 Index

A high-angle, over-the-shoulder photograph of a person with dark hair, wearing a white t-shirt and a blue wristband, sitting at a desk in a server room. They are looking at a computer monitor displaying a software interface. The room is filled with server racks and network equipment. The floor is made of light-colored tiles.

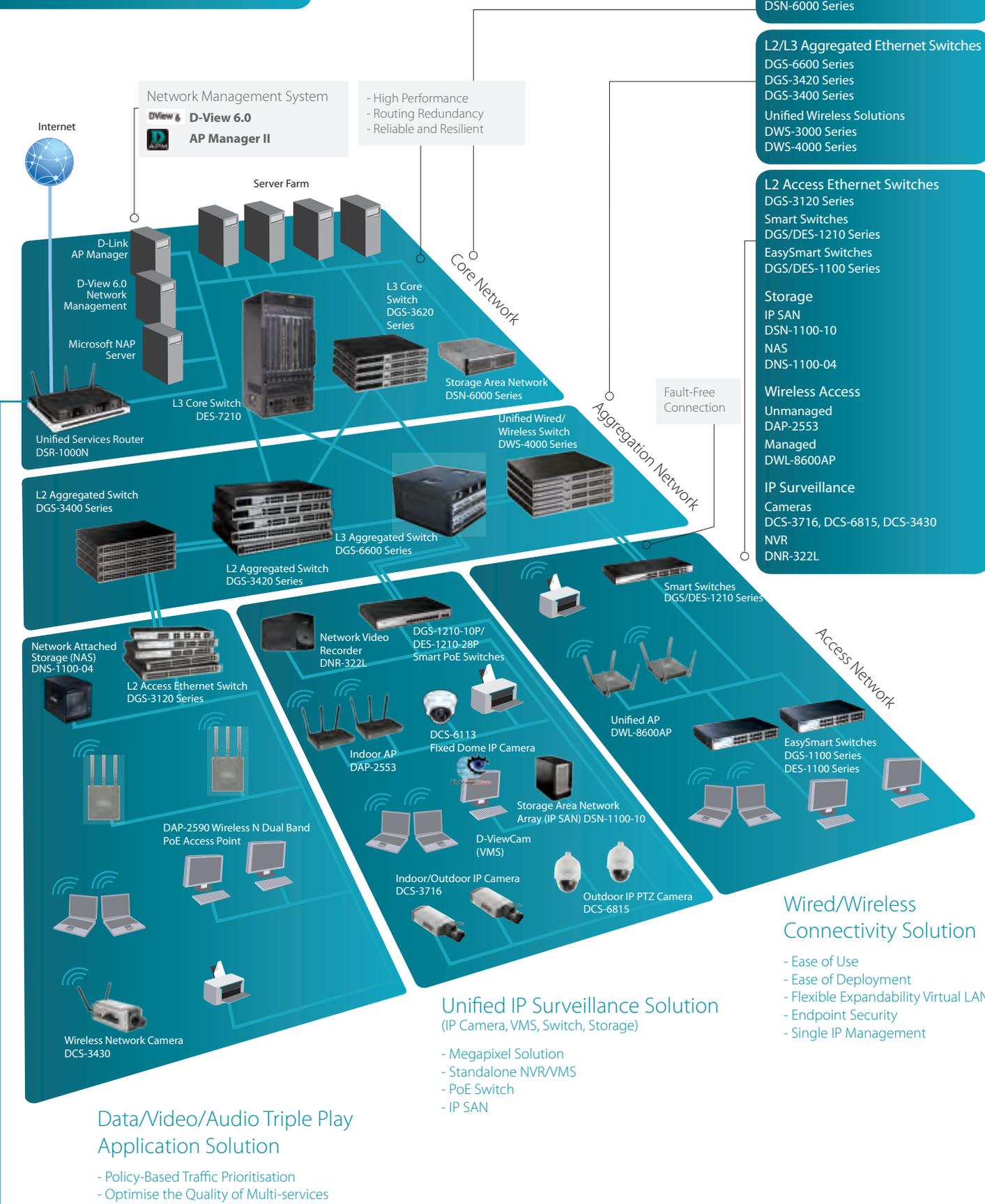
## Think more performance, more reliability, more functionality

For 25 years D-Link has been creating complete, end-to-end networking solutions that deliver just that and more. With a track record of industry-beating growth, today D-Link is a billion dollar company with the scale, the resources, the experience and the expertise that the world's most demanding businesses look for.

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

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

# Key Solutions



## Unified Services Router

- Remote management
- 3G support
- Virtual Private Network (VPN)

# Key Solutions

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

## Access Network

Over the past few years, enterprise access network has seen one of the fastest areas of growth. As technology evolves and user demand increases, enterprise access network is fast turning 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 therefore providing the following solutions for their access network:

- **Wireless Connectivity**  
D-Link Unified solutions bring robust, stable and secure wireless access to the business. The new generation of Wireless N Managed Access Points offer 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.
- **IP Surveillance**  
Traditionally, CCTV cameras, Video Recorders and sensors have been a separate part of a business's 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 Recordings (NVR), D-Link can offer the solution that best matches your business needs.

## Aggregation Network

Aggregation network is where traffic from the access network is distributed across the business. Therefore, routing, filtering and WAN access processes, and access to resources like network storage 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**  
As the range of IPv4 addresses are being 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 'IPv6 Ready' certified and are ready to be integrated in current and future networks, protecting both your investment and IT budget.

- **Bandwidth Management and Traffic Filtering and Analysis**

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

- **Network Storage**

As the business data grows and new technologies like virtualisation are being widely implemented, effective storage is a primary concern for any business. D-Link's range of Network Access Storage (NAS) devices can 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 like FTP and File Server provide secure access to your data from the Internet. For businesses with more complex storage needs, D-Link's Storage Attached Network (SAN) products provide advanced features like consolidation, volume snapshots and virtualisation, with a range of devices that are "VMware Ready" certified.

## Core Network

The core is the business backbone and is the most critical part of the network. High availability, resiliency and fault isolation are important factors to avoid critical disruptions. D-Link has the technology to ensure that the core processes run smoothly and meet the business needs:

- **10 Gigabit Uplinks**

As network traffic increases, Gigabit technology is becoming a bottleneck at the core portion of the network. 10 Gigabit uplinks are being deployed as a crucial technology to ensure that the core can provide the services and features needed at the lower levels of the network. D-Link offer 10 GbE technology in both copper and fibre modules in a wide variety of Layer 2+ and Layer 3+ core switches.

- **xStacking Technology**

D-Link's stacking technology provides resiliency 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.

# Switches

If a switch fails, then a business can experience a 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 Gigabit, Fast Ethernet and PoE that range from entry level to fully managed, more sophisticated solutions. Products under this category include Unmanaged, EasySmart, Smart, SmartPro, Managed, xStack, Chassis and Unified Wireless.

## Unmanaged

- Simplest way to build a network and let it run itself
- Plug-and-play connectivity for small businesses
- Ideal for small networks that are sharing resources
- Green Ethernet
- PoE compliant, eliminating the need for external power supplies allowing you to utilise current cables and reducing cable clutter for a tidier system

## EasySmart

- An ideal entry-level managed solution
- Basic managed features for small networks
- Easily configurable through any web browser
- Fanless, silent switches, can be deployed in any environment

## 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 corporate deployments
- PoE compliant eliminating the need for external power supplies allowing you to utilise current cables and reducing cable clutter for a tidier system

## SmartPro

- Centralised management and virtual stacking via D-Link 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 allowing you to utilise current cables and reducing cable clutter for a tidier system

## xStack

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

## Chassis

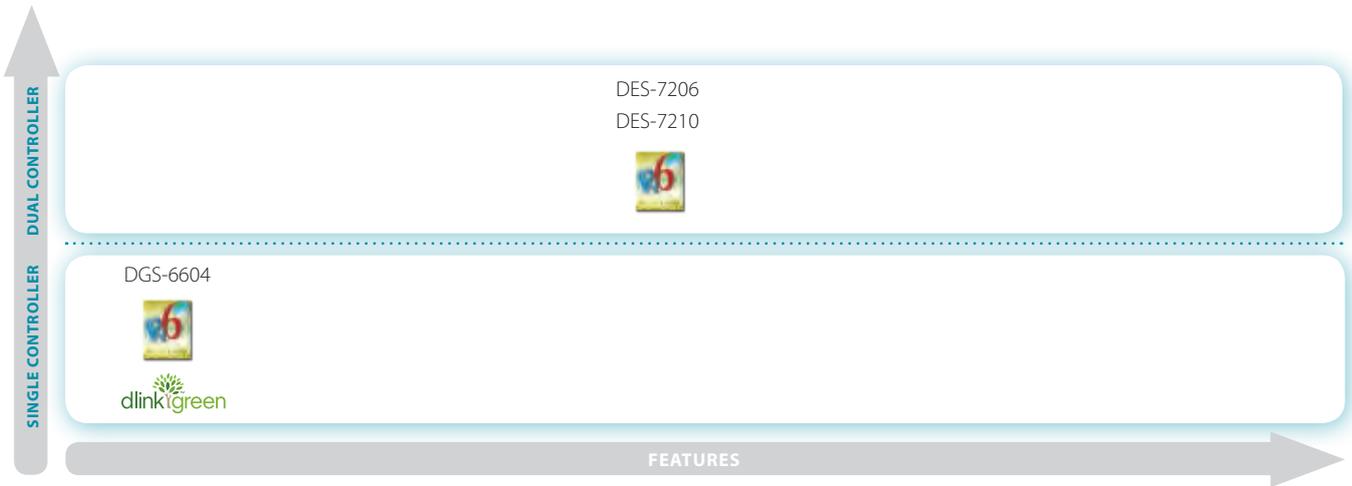
- Enterprise-class performance, security and control
- Modular architecture with redundant control planes option
- High port density with PoE and 10GbE line cards available
- PoE compliant eliminating the need for external power supplies allowing you to utilise current cables and reducing cable clutter for a tidier system

## Unified Wireless

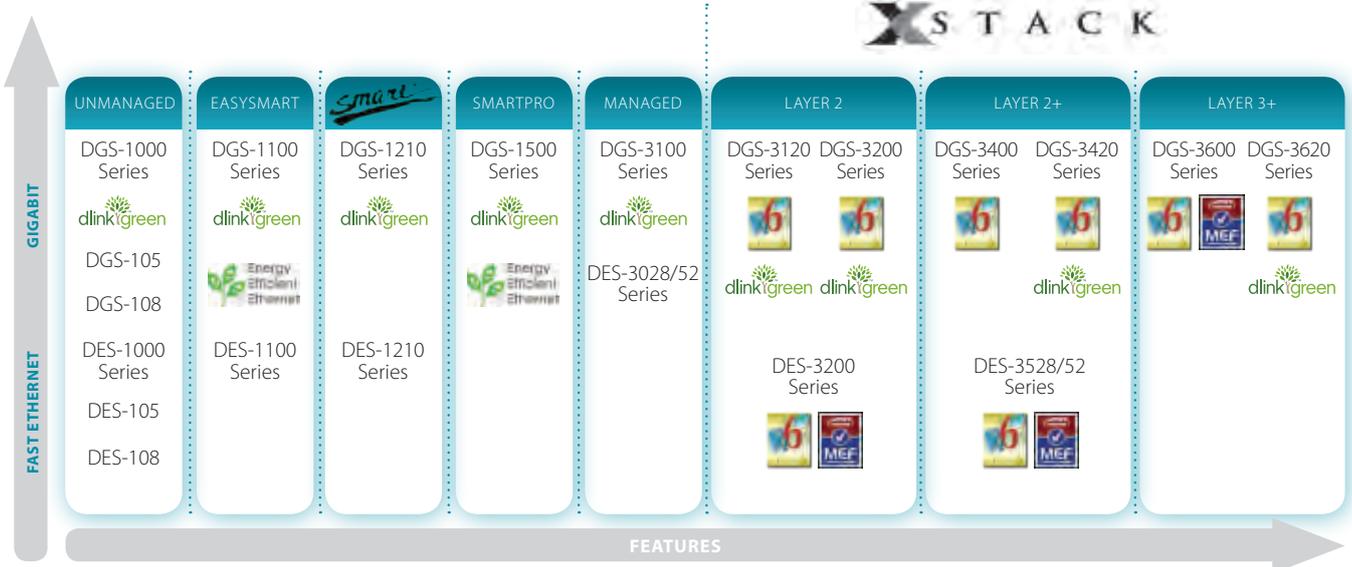
- Managed switches which offer flexible deployment, one single device can manage both wired and wireless access traffic – unified switch = wireless controller + LAN switch
- Feature-rich centralised management for wireless Access Points (AP) and clients, including security policy and RF parameters
- 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 self-healing network and AP load balancing. The unified switch can effectively manage the wireless bandwidth, optimise WLAN traffic and ensure maximum RF coverage



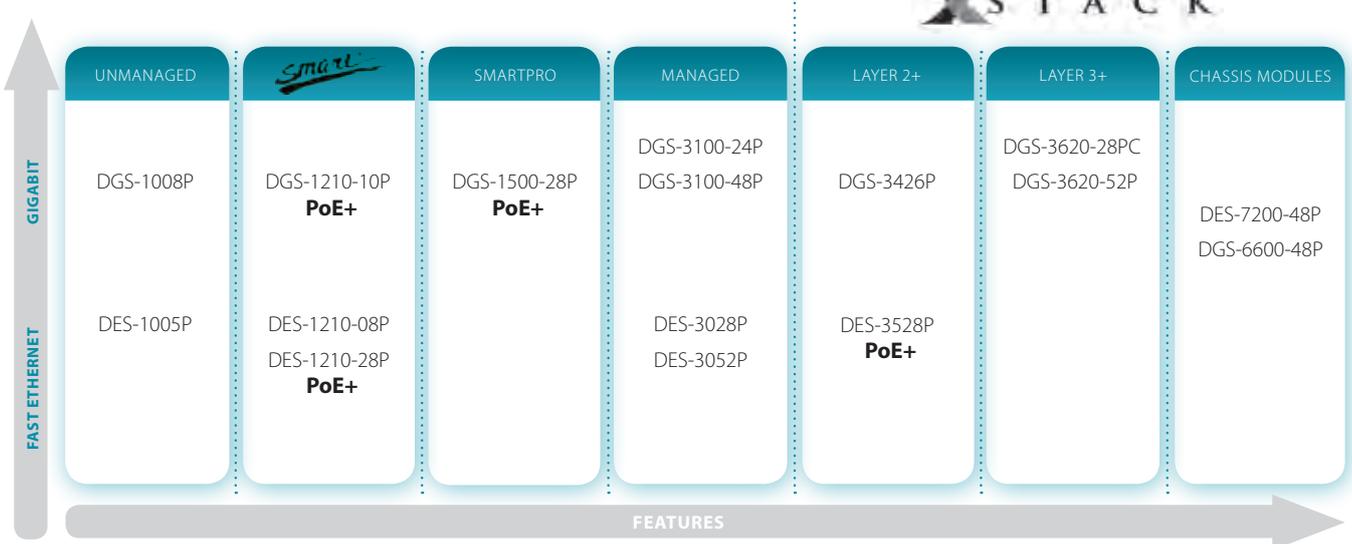
## Chassis Switches



## Standalone Switches



## PoE Switches



# xStack Chassis Switches

## DES-7200 Series



X S T A C K



The DES-7200 Series chassis-based switch is an intelligent and high-performance multi-layer LAN device designed for enterprise, campus, and metropolitan area networks (MAN). The switch is ideal for deployment in environments where uninterrupted running of network applications and a high level of performance, security and control is required. It provides the flexibility of deploying Gigabit and/or 10-Gigabit packet switching and routing.

- Internet Group Management Protocol (IGMP) Snooping
- Rapid Ether Ring Protection (RERP)
- Double VLAN (Q-in-Q)
- Selective Q-in-Q
- Private VLAN
- Virtual Router Redundancy Protocol (VRRP)
- IPv6 Ready Phase 2
- Open Shortest Path First (OSPF)
- Border Gateway Protocol (BGP)
- Protocol Independent Protocol-Dense Mode (PIM-DM)
- Protocol Independent Protocol-Sparse Mode (PIM-SM)
- Quality of Service (QoS)
- Multi Protocol Label Switching (MPLS)
- Virtual Routing and Forwarding (VRF)
- IP Flow Information Export (IPFIX)
- Global MAC-IP Binding
- CPU Protection Policy (CPP)
- 802.1X Port-Based Access Control
- 802.1X MAC-Based Access Control
- Simple Network Management Protocol (SNMP)

### DES-7206-BASE

- I/O Module Slot x 4
- CPU Module Slot x 2
- Built in Fan Tray
- Built in Dust Filter
- AC/DC Power Supply Option
- Redundant Power Supply

### DES-7210-BASE

- I/O Module Slot x 8
- CPU Module Slot x 2
- Built in Fan Tray
- Built in Dust Filter
- AC/DC Power Supply Option
- Redundant Power Supply

## Modules

### 10GbE Modules

DES-7200-2XG	2 Ports 10GE XFP Module
DES-7200-4XG	4 Ports 10GE XFP Module

### Gigabit Modules

DES-7200-24G	12 Ports SFP and 12 Combo Ports (10/100/1000BASE-T or SFP) Module
DES-7200-24GE	24 Ports 100/1000M SFP Enhanced Module
DES-7200-48	44 Ports 10/100/1000BASE-T and 4 Combo Ports (10/100/1000BASE-T or SFP) Module

### PoE Modules

DES-7200-48P	44 Ports 10/100/1000BASE-T PoE and 4 Combo Ports (10/100/1000BASE-T PoE or SFP) Module
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### CPU and Extension Modules

DES-7200-CM1	CPU Module for DES-7206 Chassis, 96G Switching Capacity
DES-7200-CM2	CPU Module for DES-7210 Chassis, 192G Switching Capacity
DES-7200-CM3	CPU Module for DES-7206 Chassis, 96G Switching Capacity, Support Advanced Service Engine (ASE)
DES-7200-CM4	CPU Module for DES-7210 Chassis, 192G Switching Capacity, Support Advanced Service Engine (ASE)
DES-7200-512RAM	512MB Extension RAM Module for 7200-CM3/CM4
DES-7200-ASE3	DES-7200 Advanced Service Engine (ASE) Module for MPLS Support

### Power Supply Modules

DES-7200-1200AC	1200W Redundant AC Power Supply
DES-7200-1200DC	1200W Redundant DC Power Supply
DES-7200-2000AC	2000W Redundant AC Power Supply
DES-7200-2000DC	2000W Redundant DC Power Supply

### Ventilation

DES-7206-FAN	Fan Tray for DES-7206-BASE
DES-7210-FAN	Fan Tray for DES-7210-BASE

## DES-7200 Series



Model		DES-7206-BASE	DES-7210-BASE
Interfaces	Fast Ethernet		
	Gigabit Ethernet		
	SFP Slots	4 Slots available for any combination of Ports 2 Slots for CPU Modules	8 Slots available for any combination of Ports 2 Slots for CPU Modules
	Combo Gigabit/SFP Slots		
10GbE Slots			
Stackability			
General Features	Stacking Speed (per Port)		
	Switching Capacity	192 Gbps	384 Gbps
	Forwarding Mode	Store-and-Forward	
	Packet Buffer Memory	2 M	
	MAC Table	16 K per Module (Versions A1, A2), 32 K per Module (Version A3)	
	Flow Control	802.3x, HOL Blocking Prevention	
	MDI/MDIX	Configurable	
L3 Features	Loop Protection	802.1Q, 802.1w, 802.1s, RERP	
	803.2ad Link Aggregation	128 Groups, 8 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, Flow-Based, RSPAN	
	Loopback Detection		
	Cable Diagnostics		
Virtual LAN (VLAN)	IP Interfaces	2 K	
	Routing Protocols	Static, RIP v1/v2, RIPng, OSPF v2/v3, BGP v4, BGP+, MPLS*	
	Policy-Based Routing	•	
	Route Balancing	ECMP/WCMP	
	IPv6 Tunneling	Static, ISATAP, GRE, 6to4	
	VRRP	•	
Multicasting	VLANs	Static+Dynamic: 4 K	
	GVRP	•	
	Protocol VLAN (802.1v)	•	
	Double VLAN (Q-in-Q)	Port-Based / Selective	
Quality of Service (QoS)	Groups	1 K	
	Protocols	IGMP v1 / v2 / v3, PIM-SM, PIM-DM, PIM Spare-Dense	
	Standard	802.1p, DSCP	
	Number of Queues	8	
Security	Mode	Strict / WRR / Strict+WRR	
	CoS Handling	VLAN ID, 802.1p, MAC	
	Bandwidth Control	Port-Based, Flow-Based	
	STP Security	BPDU Filtering, BPDU Guard, Root Restriction, UDLD	
	Per-Port MAC Limitation	•	
	Static MAC	84	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding	1 K	
	DHCP Spoofing Prevention	•	
Authentication, Authorisation and Accounting (AAA)	ARP Spoofing Prevention	•	
	Traffic Segmentation	•	
	D-Link SafeGuard Engine	•	
	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment	
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic VLAN Assignment	
Access Control Lists (ACL)	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment	
	Network Access Protection (NAP)	Port-Based, Host-Based, Dynamic VLAN Assignment	
	Guest VLAN	•	
	Switch Access	RADIUS / TACACS+, 3-Level User Account (number of entries depending on installed Modules)	
Power over Ethernet	Rules	Ether Type, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)	
	ACL Handling	•	
	Time-Based ACL	•	
	Standard	•	
Management	PoE Ports	24-Port PoE Module (DES-7200-24P)	
	PoE Budget	48-Port PoE Module (DES-7200-48P)	
	Time-Based PoE	•	
	Switch Access	Web GUI, Telnet, Console	
	sFlow	•	
	SNMP	v1 / v2c / v3	
Physical and Environment	DHCP	Server, Client, Relay (IPv4, IPv6)	
	RMON	•	
	TFTP Client	•	
	Syslog	•	
	Power Supply	Internal, Redundant	
	Max. Power Consumption	(Depending on Installed Modules)	
	Power Saving Technology	•	
Modules/ Transceivers	Operating Temperature	0 to 40 °C	
	Operating Humidity	10% to 90% RH	
	Dimensions (W x D x H)	437 x 508 x 647 mm	437 x 448 x 956 mm
	Mean Time Between Failures (MTBF)	(Depending on Installed Modules)	
	10GbE Modules		
Other	XFP Transceivers	DEM-421XT, DEM-422XT, DEM-423XT	
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT	
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R	
	Redundant Power Supply	AC Power: DES-7200-1200AC, DES-7200-2000AC DC Power: DES-7200-1200DC, DES-7200-2000DC	

\* Requires 7200-ASE3 Module

# xStack Chassis Switches

## DGS-6600 Series



XSTACK



dlinkgreen

For a customisable solution based on your business needs, D-Link's DGS-6600 modular chassis 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 576Gbps 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 and 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.

- 4-Slot Modular Chassis
- Hot-Swappable Line Cards
- 4x Redundant Power Supply
- 576 Gbps Switching Capacity
- 428 Mpps Forwarding Rate
- Up to 24 10GbE Slots
- Up to 144 Gigabit Ethernet Ports
- Up to 144 Gigabit PoE Ports (full-budget)
- 4K IP Interfaces
- 32K MAC Address per Module
- 4K VLANs
- 8 Priority Queues
- 128 Trunk Group, 8 Port/Group
- Telnet/Console CLI
- SNMP v1,v2c,v3/RMON
- CPU Utilisation Monitoring
- TFTP Client
- Web GUI
- Traffic Monitoring
- SYSLOG

### DGS-6604-SK

- 4-Slot Chassis
- 1x 850W Power Supply
- 1x Fan Module
- 1x Control Module

### DGS-6604-SK-48T

- 4-Slot Chassis
- 1x 850W Power Supply
- 1x Fan Module
- 1x Control Module
- 1x 48-Port Gigabit Module

### DGS-6604-SK-48P

- 4-Slot Chassis
- 1x 850W Power Supply
- 1x Fan Module
- 1x Control Module
- 1x 48-Port Gigabit PoE Module

## Modules

### 10 GbE Modules

DGS-6600-8XG 8 Ports 10GE XFP Module

### Gigabit Modules

DGS-6600-48T 48 Ports 10/100/1000BASE-T Module

DGS-6600-48S 48 Ports SFP Module

DGS-6600-48TS 24 Ports 10/100/1000BASE-T and 24 Ports SFP Module

### PoE Modules

DGS-6600-48P 48 Ports 10/100/1000BASE-T PoE Module

### CPU Modules

DGS-6600-CM Control Module

### Power Supply Modules

DGS-6600-PWR 850W Redundant AC Power Supply

### Ventilation

DGS-6600-FAN Smart Fan Module (8 pcs.)

## DGS-6600 Series



Model	DGS-6604	
Interfaces	Fast Ethernet	
	Gigabit Ethernet	
	SFP Slots	3 Slots available for any combination of Ports
	Combo Gigabit/SFP Slots	1 Slot for CPU Module
	10GbE Slots	
General Features	Stackability	
	Stacking Speed (per Port)	
	Switching Capacity	576 Gbps
	Forwarding Mode	Store-and-Forward
	Packet Buffer Memory	2 M
	MAC Table	32 K per Module
	Flow Control	802.3x, HOL Blocking Prevention
L2 Features	MDI/MDIX	Configurable
	Loop Protection	802.1Q, 802.1w, 802.1s, RERP*
	803.2ad Link Aggregation	128 Groups, 8 Ports per Group
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, Flow-Based, RSPAN
	Loopback Detection	
L3 Features	Cable Diagnostics	
	IP Interfaces	4 K
	Routing Protocols	Static, RIP v1/v2, RIPvng, OSPF v2/v3, BGP v4, BGP+*, IS-IS*
	Policy-Based Routing	•
	Route Balancing	ECMP/WCMP*
	IPv6 Tunneling	Static, ISATAP, GRE*, 6to4
Virtual LAN (VLAN)	VRRP	•
	VLANs	Static+Dynamic: 4 K
	GVRP	•
	Protocol VLAN (802.1v)	•
Multicasting	Double VLAN (Q-in-Q)	Port Based / Selective
	Groups	2 K
	Protocols	IGMP v1 / v2 / v3, PIM-SM, PIM-DM, PIM Spare-Dense
Quality of Service (QoS)	Standard	802.1p, DSCP
	Number of Queues	8
	Mode	Strict / WRR / Strict+WRR / DRR / WDRR
	CoS Handling	802.1p
	Bandwidth Control	Port-Based, Flow-Based
Security	STP Security	BPDU Filtering, Root Restriction
	Per-Port MAC Limitation	•
	Static MAC	16
	Storm Control	Broadcast / Multicast / Unicast
	IP-MAC-Port Binding	
	DHCP Spoofing Prevention	
	ARP Spoofing Prevention	
	Traffic Segmentation	
	D-Link SafeGuard Engine	
	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment
Authentication, Authorisation and Accounting (AAA)	Web-Based Access Control (WAC)	
	MAC-Based Access Control (MAC)	
	Network Access Protection (NAP)	
	Guest VLAN	•
	Switch Access	RADIUS / TACACS+, 3-Level User Account
Access Control Lists (ACL)	Rules	(number of entries depending on installed Modules)
	ACL Handling	VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)
	Time-Based ACL	•
Power over Ethernet	Standard	
	PoE Ports	48-Port PoE Module (DGS-6600-48P)
	PoE Budget	
	Time-Based PoE	
Management	Switch Access	Web GUI, Telnet, Console
	sFlow	
	SNMP	v1 / v2c / v3
	DHCP	Server, Client, Relay (IPv4, IPv6)
	RMON	•
	TFTP Client	•
	Syslog	•
Physical and Environment	Power Supply	Internal, Redundant
	Max. Power Consumption	(Depending on Installed Modules)
	Power Saving Technology	
	Operating Temperature	0 to 50 °C
	Operating Humidity	10% to 90% RH
Modules / Transceivers	Dimensions (W x D x H)	484 x 470 x 280 mm
	Mean Time Between Failures (MTBF)	(Depending on Installed Modules)
	10GbE Modules	
	XFP Transceivers	DEM-421XT, DEM-422XT, DEM-423XT
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT
Other	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R
	Redundant Power Supply	DGS-6600-PWR (850 W)

\* Implemented in future firmware upgrade

# xStack Gigabit Layer 3+ Managed Switches

## DGS-3620 Series



X S T A C K



dlinkgreen

The xStack DGS-3620 Series of next generation Gigabit Layer 3+ Managed switches deliver performance, flexibility, security, multi-layer QoS and access control, along with redundant power solutions for businesses. 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 multilevel network structured 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.

- 20/48 10/100/1000BASE-T Ports or 20 SFP Slots
- 4 10-Gigabit SFP+ Ports Uplinks
- Physical Stack of up to 12 Units, 576 Gigabit Ports
- 802.1p Priority Queues/Multi-Layer CoS
- Loopback Detection (LBD)
- L2/L3/L4 Multi-Layer Access Control
- Virtual Stack of up to 32 Units Using Single IP Management
- 802.1X Guest VLAN
- IP Multicast Support for Bandwidth-Intensive Applications
- SSH/SSL Support
- Standard Image (SI) and for Advanced Features, Enhanced Image (EI)
- PoE / PoE+ Versions Available
- Telnet
- D-Link Single IP Management (SIM)
- Command Line Interface (CLI)
- Web-based GUI
- RMON Support
- Traffic Segmentation
- Supports Microsoft® NAP
- D-Link Safeguard Engine

### Optional Accessories

#### Optional 10 Gbps SFP+ Transceivers

DEM-431XT  
DEM-431XT-DD  
DEM-432XT  
DEM-432XT-DD

#### Optional 1 Gbps SFP Transceivers

DEM-310GT  
DEM-311GT  
DEM-312GT2  
DEM-314GT  
DEM-315GT  
DEM-330T  
DEM-330R  
DEM-331T  
DEM-331R  
DEM-211  
DEM-210

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

DEM-CB100S  
DEM-CB300SC

#### Optional Redundant Power Supplies

DPS-500  
DPS-700

### DGS-3620-28TC

- 10/100/1000BASE-T x 20
- Combo 10/100/1000BASE-T/SFP Ports x4
- 10-Gigabit SFP+ Slots x 4
- Optional Redundant Power Supply
- Physical Stack

### DGS-3620-28SC

- SFP Slot x 20
- Combo 10/100/1000BASE-T/SFP Ports x4
- 10-Gigabit SFP+ Slots x 4
- Optional Redundant Power Supply
- Physical Stack

### DGS-3620-28PC

- 10/100/1000BASE-T x 20
- Combo 10/100/1000BASE-T/SFP Ports x4
- 10-Gigabit SFP+ Slots x 4
- PoE Ports x 24
- Optional Redundant Power Supply
- Physical Stack

### DGS-3620-52T

- 10/100/1000BASE-T x 48
- 10-Gigabit SFP+ Slots x 4
- Optional Redundant Power Supply
- Physical Stack

### DGS-3620-52P

- 10/100/1000BASE-T x 48
- 10-Gigabit SFP+ Slots x 4
- PoE Ports x 48
- Optional Redundant Power Supply
- Physical Stack

## DGS-3620 Series



Model	DGS-3620-28TC	DGS-3620-28SC	DGS-3620-28PC	DGS-3620-52T	DGS-3620-52P	
Interfaces	Fast Ethernet					
	Gigabit Ethernet	20		20	48	
	1GbE SFP Slots		20			
	10GbE SFP+ Slots	4	4	4	4	4
	Combo Gigabit/SFP+ Slots	4	4	4		
General Features	Stackability	Virtual Stack of Up to 32 Units Using Single IP Management. Physical Stack (Up to 12 units)				
	Stacking Speed (per Port)	20 Gbps (full duplex)				
	Switching Capacity	128 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps
	Forwarding Mode	Store-and-forward				
	Packet Buffer Memory	2MB				
	MAC Table	32K Entries				
	Flow Control	802.3x, HOL Blocking Prevention				
	MDI/MDIX	Configurable				
L2 Features	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS				
	803.2ad Link Aggregation	Max. 32 Groups per Device. 8 Gigabit Ports or 2 10 Gigabit Ports per Group				
	Port Mirroring	One-to-One, Many-to-One, Flow Based, RSPAN				
	Loopback Detection	•				
	Cable Diagnostics	•				
L3 Features	IP Interfaces	256				
	Routing Protocols	Static, RIP v1/v2, RIPng*, OSPF v2, OSPF v3*, BGP v4*, BGP+ v4*				
	Policy-Based Routing	•				
	Route Balancing	ECMP/WCMP				
	IPv6 Tunneling	Static*, ISATAP*, GRE*, 6to4*				
Virtual LAN (VLAN)	VRRP	•				
	VLANs	Static, 4 K Dynamic: 255				
	GVRP	•				
	Protocol VLAN (802.1v)	•				
Multicasting	Double VLAN (Q-in-Q)	Port-based / Selective				
	Groups	2K				
	Protocols	IGMP V1 / V2 / V3, PIM-SM, PIM-SM v6*, PIM-DM, PIM Spare-Dense, DVMRP v3*				
Quality of Service (QoS)	Standard	802.1p				
	Number of Queues	8				
	Mode	Strict / WRR / Strict+WRR				
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IPv4, IPv6, DSCP, Port, Protocol, IPv6 Traffic Class, IPv6 Flow Label, Payload (User-Defined)				
Security	Bandwidth Control	Port-Based, Flow-Based				
	STP Security	BPDU Filtering, Root Restriction				
	Per-Port MAC Limitation	•				
	Static MAC	16				
	Storm Control	Broadcast / Multicast / Unicast				
	IP-MAC-Port Binding	500 Entries				
	DHCP Spoofing Prevention	•				
	ARP Spoofing Prevention	•				
	Traffic Segmentation	•				
	D-Link SafeGuard Engine	•				
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment				
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic VLAN Assignment				
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment				
	Network Access Protection (NAP)	802.1x NAP, DHCP NAP				
	Guest VLAN	•				
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 4-Level User Account				
	Rules	Ingress: 6 profiles, 256 rules per profile, Egress: 4 profiles, 128 rules per profile				
	ACL Handling	Switch Port, VLAN ID, 802.1p, MAC, IPv4, IPv6, DSCP, Port, Protocol, IPv6 Traffic Class, IPv6 Flow Label, Payload (User-Defined)				
Power over Ethernet	Time-Based ACL	•				
	Standard			802.3af, 802.3at	802.3af, 802.3at	
	PoE Ports			24	48	
	PoE Budget			370 W	370 W	
Management	Time-Based PoE			•	•	
	Switch Access	Web GUI, Telnet				
	sFlow	•				
	SNMP	V1 / V2c / V3				
	DHCP	Server, Client, Relay (IPv4, IPv6)				
	RMON	•				
	TFTP Client	•				
Syslog	•					
Physical and Environment	Power Supply	Internal				
	Max. Power Consumption	50.8 W	60.2 W	478 W	81 W	505.4 W
	Power Saving Technology	Green Ethernet				
	Operating Temperature	0 to 50 °C				
	Operating Humidity	10% to 90% RH				
	Dimensions (W x D x H)	441 x 310 x 44 mm	441 x 310 x 44 mm	441 x 380 x 44 mm	441 x 380 x 44 mm	441 x 380 x 44 mm
Modules / Transceivers	Mean Time Between Failures (MTBF)	287,763 Hours	299, 801 Hours	230, 619 Hours	255, 609 Hours	202, 462 Hours
	10GbE SFP+ Transceivers	DEM-431XT, DEM-432XT				
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT				
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R				
Other	Redundant Power Supply	DPS-500	DPS-500	DPS-700	DPS-500	DPS-700

\* Enhanced Image (EI) only

# xStack Gigabit Layer 3+ Switches

## DGS-3600 Series



X S T A C K



The DGS-3600 Series consists of Layer 3 Gigabit switches that deliver performance, flexibility, security, multi-layer QoS and access, with redundant power option for SMB and enterprises. It is easy to deploy, simple to manage, and it can be virtually stacked with any switches supporting D-Link Single IP Management (SIM). It also supports 10-Gigabit physical stacking.

- D-Link Single IP Management (Virtual Stack)
- Internet Group Multicast Protocol (IGMP) Snooping
- Multicast Listener Discovery (MLD) Snooping
- L2 Protocol Tunneling
- 802.1v Protocol VLAN
- Double VLAN (Q-in-Q)
- Selective Q-in-Q
- Virtual Router Redundancy Protocol (VRRP)
- Ethernet-Ring Protection Switching (E-RPS)
- IPv6 Tunnel
- Gratuitous ARP
- Routing Information Protocol (RIP)
- Routing Information Protocol Next Generation (RIPng)
- Open Shortest Path First (OSPF)
- Border Gateway Protocol (BGP)
- Protocol Independent Protocol-Dense Mode (PIM-DM)
- Protocol Independent Protocol-Sparse Mode (PIM-SM)
- Distance Vector Multicast Routing Protocol (DVMRP)
- Quality of Service (QoS)
- D-Link Unidirectional Link Detection (DULD)
- Access Control List (ACL)
- Broadcast/Multicast/Unicast Storm Control
- Traffic Segmentation
- D-Link Safeguard Engine™
- IP-MAC-Port Binding
- 802.1X Access Control
- Web-Based Access Control (WAC)
- MAC-Based Access Control (MAC)
- Microsoft® Network Access Protection (NAP)
- Three-Level User Account
- sFlow
- Link Layer Discover Protocol (LLDP)
- LLDP-Media Endpoint Discovery (LLDP-MED)

### DGS-3612G

- SFP Slot x 8
- Combo 1000BASE-T/SFP x 4
- Redundant Power Supply

### DGS-3627

- 10/100/1000BASE-T x 20
- Combo 1000BASE-T/SFP x 4
- 10G Expansion Slot x 3
- Redundant Power Supply
- Physical Stack

### DGS-3627G

- SFP Slot x 20
- Combo 1000BASE-T/SFP x 4
- 10G Expansion Slot x 3
- Redundant Power Supply
- Physical Stack

### DGS-3650

- 10/100/1000BASE-T x 44
- Combo 1000BASE-T/SFP x 4
- 10G Expansion Slot x 2
- Redundant Power Supply
- Physical Stack

## DGS-3600 Series



Model		DGS-3612G	DGS-3627	DGS-3627G	DGS-3650
Interfaces	Fast Ethernet				
	Gigabit Ethernet		20		44
	SFP Slots	8		20	
	Combo Gigabit/SFP Slots	4	4	4	4
	10GbE Slots		3	3	2
General Features	Stackability	Virtual Stack	Virtual + Physical Stack (up to 12 Units)		
	Stacking Speed (per Port)		20 Gbps		
	Switching Capacity	24 Gbps	108 Gbps	108 Gbps	136 Gbps
	Forwarding Mode	Store-and-Forward			
	Packet Buffer Memory	2 MB			
	MAC Table	16 K			
	Flow Control	802.3x, HOL Blocking Prevention			
	MDI/MDIX	Configurable			
L2 Features	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS			
	803.2ad Link Aggregation	32 Groups, 8 Gb Ports per Group / 2 10GbE Ports per Group			
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, Flow-Based, RSPAN			
	Loopback Detection	•			
	Cable Diagnostics	•			
L3 Features	IP Interfaces	256			
	Routing Protocols	Static, RIP v1/v2, RIPvng, OSPF v2/v3, BGP v4			
	Policy-Based Routing	•			
	Route Balancing	ECMP/WCMP			
	IPv6 Tunneling	Static, ISATAP, GRE, 6to4			
	VRRP	•			
Virtual LAN (VLAN)	VLANs	Static: 4 K, Dynamic: 255			
	GVRP	•			
	Protocol VLAN (802.1v)	•			
	Double VLAN (Q-in-Q)	Port-Based / Selective			
Multicasting	Groups	1 K			
	Protocols	IGMP v1 / v2 / v3, PIM-SM, PIM-DM, PIM Spare-Dense, DVMRP v3, MLD v1			
Quality of Service (QoS)	Standard	802.1p, DSCP			
	Number of Queues	8			
	Mode	Strict / WRR / Strict+WRR			
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)			
Security	Bandwidth Control	Port-Based, Flow-Based			
	STP Security	BPDU Filtering, Root Restriction, UDLD			
	Per-Port MAC Limitation	•			
	Static MAC	16			
	Storm Control	Broadcast / Multicast / Unicast			
	IP-MAC-Port Binding	500 Entries			
	DHCP Spoofing Prevention	•			
	ARP Spoofing Prevention	•			
	Traffic Segmentation	•			
	D-Link SafeGuard Engine	•			
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment			
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic VLAN Assignment			
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment			
	Network Access Protection (NAP)	802.1x NAP, DHCP NAP			
	Guest VLAN	•			
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 3-Level User Account			
	Rules	1,792			
	ACL Handling	Ether Type, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)			
Management	Time-Based ACL	•			
	Switch Access	Web GUI, Telnet, Console			
	sFlow	•			
	SNMP	v1 / v2c / v3			
	DHCP	Server, Client, Relay (IPv4, IPv6)			
	RMON	•			
	TFTP Client	•			
Physical and Environment	Syslog	•			
	Power Supply	Internal			
	Max. Power Consumption	43.7 W	94.3 W	75.6 W	137.5 W
	Power Saving Technology				
	Operating Temperature	0 to 45 °C	0 to 45 °C	0 to 40 °C	0 to 40 °C
	Operating Humidity	10% to 90% RH			
Modules / Transceivers	Dimensions (W x D x H)	441 x 389 x 44 mm	441 x 389 x 44 mm	441 x 389 x 44 mm	441 x 389 x 44 mm
	Mean Time Between Failures (MTBF)	342,646 Hours	287,631 Hours	289,946 Hours	246,838 Hours
	10GbE Modules	DEM-410X, DEM-410CX			
	XFP Transceivers	DEM-421XT, DEM-422XT, DEM-423XT			
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT			
Other	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R			
	Redundant Power Supply	DPS-500	DPS-500	DPS-500	DPS-500

# xStack Layer 2+ Managed Stackable Gigabit Switches

## DGS-3420 Series

XSTACK



The DGS-3420 Series of next generation Layer 2+ Gigabit switches delivers performance, flexibility, security, multi-layer Quality of Service (QoS), and accessibility, along with redundant power solutions for businesses.

- Five different models in the Series, including PoE/PoE+ versions
- Multiple functions in a single device: switching, static routing, PoE, eliminating the need of purchasing multiple routers and switches
- Physical stacking architecture: up to 576 Gigabit ports on a single stack
- Web-based GUI for easy management
- Comprehensive security features, including Microsoft NAP
- Comprehensive IPv6 support
- SD card slot to store and restore configuration files
- Green technology - Power-saving mode, time-based PoE, Smart Fans

### Optional Accessories

#### Optional Management Software

DV-600S	D-View 6.0 Network Management Software Standard Edition
DV-600P	D-View 6.0 Network Management Software Standard Edition

#### Optional 10 Gbps SFP+ Transceivers

DEM-431XT	10 GBASE-SR SFP+ Transceiver (w/o DDM), 80 m: OM1 & OM2 MMF, 300 m: OM3 MMF
DEM-431XT-DD	10 GBASE-SR SFP+ Transceiver (with DDM), 80 m: OM1 & OM2 MMF, 300 m: OM3 MMF
DEM-432XT	10 GBASE-LR SFP+ Transceiver (w/o DDM), 10 km
DEM-432XT-DD	10 GBASE-LR SFP+ Transceiver (with DDM), 10 km

#### Optional 1 Gbps SFP Transceivers

DEM-310GT	SFP Transceiver, 1000BASE-LX standard, single-mode fibre, max. distance 10 km, 3.3 V
DEM-311GT	SFP Transceiver, 1000BASE-SX standard, single-mode fibre, max. distance 50 km, 3.3 V
DEM-312GT2	SFP Transceiver, 1000BASE-LX standard, single-mode fibre, max. distance 2 km, 3.3 V
DEM-314GT	SFP Transceiver, 1000BASE-LXH standard, single-mode fibre, max. distance 50 km, 3.3 V
DEM-315GT	SFP Transceiver, 1000BASE-LX standard, single-mode fibre, max. distance 80 km, 3.3 V
DEM-330T	SFP Transceiver, 1000BASE-LX standard, single-mode fibre, max. distance 10 km, 3.3 V Tx wavelength 1550 nm, Rx wavelength 1310 nm
DEM-330R	WDM SFP Transceiver, 1000BASE-LX standard, single-mode fibre, max. distance 10 km, 3.3 V. Tx wavelength 1310 nm, Rx wavelength 1550 nm
DEM-331T	WDM SFP Transceiver, 1000BASE-LX standard, single-mode fibre, max. distance 40 km, 3.3 V. Tx wavelength 1550 nm, Rx wavelength 1310 nm
DEM-331R	WDM SFP Transceiver, 1000BASE-LX standard, single-mode fibre, max. distance 40 km, 3.3 V. Tx wavelength 1310 nm, Rx wavelength 1550 nm
DEM-211	FP Transceiver, 100BASE-FX multi-mode fibre, max. distance 2 km, 3.3 V
DEM-210	FP Transceiver, 100BASE-FX multi-mode fibre, max. distance 15km, 3.3 V

#### Recommended 10 Gbps SFP+ Direct Attach Stacking Cables<sup>2</sup>

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

#### Optional Redundant Power Supplies

DPS-500	140-watt redundant power supply
DPS-500DC	140-watt DC redundant power supply
DPS-700	589-watt redundant power supply (for PoE models only)

<sup>1</sup> Supported in DGS-3420/28PC and DGS-3420/52P only

<sup>2</sup> These stacking cables are not included but are recommended to be purchased separately for the physical stacking functionality.

### DGS-3420-28TC

- 20 10/100/1000BASE-T Ports
- 4 Combo 10/100/1000BASE-T/SFP Ports
- 4 SFP+ Ports
- Optional Redundant Supply

### DGS-3420-28SC

- 20 SFP Ports
- 4 Combo 10/100/1000BASE-T/SFP Ports
- 4 SFP+ Ports
- Optional Redundant Supply

### DGS-3420-28PC

- 20 10/100/1000BASE-T PoE Ports
- 4 Combo 10/100/1000BASE-T/SFP
- 4 SFP+ Ports
- Optional Redundant Supply

### DGS-3420-52T

- 48 10/100/1000BASE-T Ports
- 4 SFP+ Ports
- Optional Redundant Supply

### DGS-3420-52P

- 48 10/100/1000BASE-T PoE Ports
- 4 SFP+ Ports
- Optional Redundant Supply

## DGS-3420 Series



Model		DGS-3420-28TC	DGS-3420-28SC	DGS-3420-28PC	DGS-3420-52T	DGS-3420-52P
Interfaces	Fast Ethernet					
	Gigabit Ethernet	20		20	48	48
	SFP Slots		20			
	Combo Gigabit/SFP Slots	4	4	4	4	4
	10GbE Slots	4	4	4		
General Features	Stackability	Virtual + Physical Stack (up to 12 units)				
	Stacking Speed (per Port)	20 Gbps				
	Switching Capacity	128 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps
	Forwarding Mode	Store-and-Forward				
	Packet Buffer Memory	2 MB				
	MAC Table	16 K				
	Flow Control	802.3x, HOL Blocking Prevention				
	MDI/MDIX	Configurable				
L2 Features	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS				
	803.2ad Link Aggregation	32 Groups, 8 Gb Ports per Group / 2 10GbE Ports per Group				
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, Flow-Based, RSPAN				
	Loopback Detection	•				
	Cable Diagnostics	•				
L3 Features	IP Interfaces	256				
	Routing Protocols	Static, Rip v1/v2, RIPng				
	Policy-Based Routing	Based on ACL				
	Route Balancing					
	IPv6 Tunneling	Static, ISATAP, 6to4				
Virtual LAN (VLAN)	VRRP					
	VLANs	Static: 4 K, Dynamic: 255				
	GVRP	•				
	Protocol VLAN (802.1v)	•				
Multicasting	Double VLAN (Q-in-Q)	Port-Based / Selective				
	Groups	960 (IGMP), 480 (MLD)				
	Protocols	IGMP v1/v2/v3, MLD v1, v2 Snooping				
Quality of Service (QoS)	Standard	802.1p, DSCP				
	Number of Queues	8				
	Mode	Strict / WRR / Strict+WRR				
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, IPv6 Traffic Class, IPv6 Flow Label, Payload (User-Defined)				
Security	Bandwidth Control	Port-Based, Flow-Based				
	STP Security	BPDU Filtering, Root Restriction, UDLD				
	Per-Port MAC Limitation	•				
	Static MAC	16				
	Storm Control	Broadcast / Multicast / Unicast				
	IP-MAC-Port Binding	500 Entries				
	DHCP Spoofing Prevention	•				
	ARP Spoofing Prevention	•				
	Traffic Segmentation	•				
	D-Link SafeGuard Engine	•				
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment				
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic VLAN Assignment				
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment				
	Network Access Protection (NAP)	802.1x, NAP, DHCP NAP				
	Guest VLAN	•				
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 3-Level User Account				
	Rules	Ingress ACL: 6 Profiles, 256 Rules Per Profile / Egress ACL: 4 Profiles, 128 Rules Per Profile				
	ACL Handling	Ether Type, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, IPv6 Traffic Class, IPv6 Flow Label, Payload (User-Defined)				
Power over Ethernet	Time-Based ACL	•				
	Standard			802.3af and 802.3at		802.3af and 802.3at
	PoE Ports			24		48
	PoE Budget			370 W (740 W with DPS-700 RPS)		370 W (740 W with DPS-700 RPS)
	Time-Based PoE			•		•
Management	Switch Access	Web GUI, Telnet, Console				
	sFlow	•				
	SNMP	v1 / v2c / v3				
	DHCP	Server, Client, Relay (IPv4, IPv6)				
	RMON	•				
	TFTP Client	•				
Physical and Environment	Syslog	•				
	Power Supply	Internal				
	Max. Power Consumption	58.8 Watts	60.2 Watts	478.0 Watts	81.0 Watts	505.4 Watts
	Power Saving Technology	Green Ethernet				
	Operating Temperature	0 to 50 °C				
	Operating Humidity	10% to 90% RH				
	Dimensions (W x D x H)	441 x 310 x 44 mm	441 x 310 x 44 mm	441 x 310 x 44 mm	441 x 310 x 44 mm	441 x 310 x 44 mm
Mean Time Between Failures (MTBF)	287763 Hours	300371 Hours	206190 Hours	255608 Hours	202462 Hours	
Modules / Transceivers	10GbE SFP+ Transceivers	DEM-431XT, DEM-431XT-DD, DEM-432XT, DEM-432XT-DD				
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-211, DEM-210				
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R				
Other	Redundant Power Supply	DPS-500	DPS-500	DPS-700	DPS-500	DPS-700

# xStack Gigabit Layer 2+ Switches

## DGS-3400 Series



X S T A C K



The xStack DGS-3400 Series consists of Layer 2 Gigabit switches that deliver performance, flexibility, security, multi-layer QoS and a redundant power supply option for SMB and enterprises.

- D-Link Single IP Management (Virtual Stack)
- Internet Group Multicast Protocol (IGMP) Snooping
- Multicast Listener Discovery (MLD) Snooping
- Loopback Detection (LBD)
- 802.1v Protocol VLAN
- Double VLAN (Q-in-Q)
- Selective Q-in-Q
- Routing Information Protocol (RIP)
- RIP Next Generation (RIPng)
- IGMP Snooping Multicast (ISM) VLAN
- Quality of Service (QoS)
- Access Control List (ACL)
- Broadcast/Multicast/Unicast Storm Control
- Traffic Segmentation
- D-Link Safeguard Engine™
- CPU Interface Filtering
- IP-MAC-Port Binding
- IPv6 Tunnel
- D-Link Unidirectional Link Detection (DULD)
- 802.1X Port-Based Access Control
- 802.1X Host-Based Access Control
- Web-Based Access Control (WAC)
- MAC-Based Access Control (MAC)
- Compound Authentication
- Microsoft® Network Access Protection (NAP)
- Three-Level User Account
- sFlow
- Link Layer Discovery Protocol (LLDP)
- LLDP-Media Endpoint Discovery (LLDP-MED)

### DGS-3426P

- 10/100/1000BASE-T x 20 (PoE)
- Combo 1000BASE-T/SFP x 4
- 10G Expansion Slots x 2
- Redundant Power Supply
- Physical Stack

### DGS-3427

- 10/100/1000BASE-T x 20
- Combo 1000BASE-T/SFP x 4
- 10G Expansion Slots x 3
- Redundant Power Supply
- Physical Stack

### DGS-3450

- 10/100/1000BASE-T x 44
- Combo 1000BASE-T/SFP x 4
- 10G Expansion Slots x 2
- Redundant Power Supply
- Physical Stack

## DGS-3400 Series



Model		DGS-3426P	DGS-3427	DGS-3450
Interfaces	Fast Ethernet			
	Gigabit Ethernet	20	20	44
	SFP Slots			
	Combo Gigabit/SFP Slots	4	4	4
	10GbE Slots	2	3	2
General Features	Stackability	Virtual Stack	Virtual + Physical Stack (up to 12 Units)	
	Stacking Speed (per Port)		20 Gbps	
	Switching Capacity	88 Gbps	108 Gbps	136 Gbps
	Forwarding Mode		Store-and-Forward	
	Packet Buffer Memory		750 K	
	MAC Table		8 K	
	Flow Control		802.3x, HOL Blocking Prevention	
	MDI/MDIX		Configurable	
L2 Features	Loop Protection		802.1Q, 802.1w, 802.1s, ERPS	
	803.2ad Link Aggregation		32 Groups, 8 Gb Ports per Group / 2 10GbE Ports per Group	
	Port Mirroring		One-to-One, Many-to-One, RX/TX/Both, Flow-Based, RSPAN	
	Loopback Detection		•	
	Cable Diagnostics		•	
L3 Features	IP Interfaces		64	
	Routing Protocols		Static, RIP v1/v2, RIPng	
	Policy-Based Routing		Based on ACL	
	Route Balancing			
	IPv6 Tunneling		Static, ISATAP, 6to4	
Virtual LAN (VLAN)	VLANs		Static: 4 K, Dynamic: 255	
	GVRP		•	
	Protocol VLAN (802.1v)		•	
	Double VLAN (Q-in-Q)		Port-Based / Selective	
Multicasting	Groups		1 K	
	Protocols		IGMP v1 / v2 / v3, MLD v1, v2 Snooping	
Quality of Service (QoS)	Standard		802.1p, DSCP	
	Number of Queues		8	
	Mode		Strict / WRR / Strict+WRR	
	CoS Handling		Switch Port, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)	
Security	Bandwidth Control		Port-Based, Flow-Based	
	STP Security		BPDU Filtering, Root Restriction, UDLD	
	Per-Port MAC Limitation		•	
	Static MAC		16	
	Storm Control		Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding		511 Entries	
	DHCP Spoofing Prevention		•	
	ARP Spoofing Prevention		•	
	Traffic Segmentation		•	
Authentication, Authorisation and Accounting (AAA)	D-Link SafeGuard Engine		•	
	802.1x Authentication		Port-Based, Host-Based, Dynamic VLAN Assignment	
	Web-Based Access Control (WAC)		Port-Based, Host-Based, Dynamic VLAN Assignment	
	MAC-Based Access Control (MAC)		Port-Based, Host-Based, Dynamic VLAN Assignment	
	Network Access Protection (NAP)		802.1x NAP, DHCP NAP	
Access Control Lists (ACL)	Guest VLAN		•	
	Switch Access		RADIUS / TACACS+, 3-Level User Account	
	Rules		768	
Power over Ethernet	ACL Handling		Ether Type, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)	
	Time-Based ACL		•	
	Standard	802.3af		
Management	PoE Ports	24		
	PoE Budget	370 W		
	Time-Based PoE			
	Switch Access		Web GUI, Telnet, Console	
	sFlow		•	
	SNMP		v1 / v2c / v3	
	DHCP		Server, Client, Relay (IPv4, IPv6)	
Physical and Environment	RMON		•	
	TFTP Client		•	
	Syslog		•	
	Power Supply		Internal	
	Max. Power Consumption	542.3 W	95.4 W	148.9 W
	Power Saving Technology			
Modules / Transceivers	Operating Temperature		0 to 40 °C	
	Operating Humidity		10% to 90% RH	
	Dimensions (W x D x H)	441 x 389 x 44 mm	441 x 389 x 44 mm	441 x 389 x 44 mm
	Mean Time Between Failures (MTBF)	373,693 Hours	474,795 Hours	402,096 Hours
	10GbE Modules		DEM-410X, DEM-410CX	
Other	XFP Transceivers		DEM-421XT, DEM-422XT, DEM-423XT	
	SFP Transceivers		DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT	
	WDM SFP Transceivers		DEM-330T, DEM-330R, DEM-331T, DEM-331R	
Redundant Power Supply	DPS-600	DPS-500	DPS-500	DPS-500

# xStack Fast Ethernet Layer 2+ Switches

## DES-3528/DES-3552 Series



X S T A C K



The xStack DES-3528/DES-3552 Series consists of L2 10/100Mbps switches that deliver performance, flexible expansion, robust security, multi-layer QoS and a redundant power supply option.

- D-Link Single IP Management (Virtual Stack)
- Loopback Detection (LBD)
- Internet Group Management Protocol (IGMP) Snooping
- Multicast Listener Discovery (MLD) Snooping
- Policy-Based Routing
- 802.1v Protocol VLAN
- Double VLAN (Q-in-Q)
- Selective Q-in-Q
- IGMP Snooping Multicast (ISM) VLAN
- Asymmetric VLAN
- Voice VLAN
- Quality of Service (QoS)
- Access Control List (ACL)
- Traffic Segmentation
- Broadcast/Multicast/Unicast Storm Control
- ARP Spoofing Prevention
- BPDU Attack Protection
- 802.1X Port/Host-Based Access Control
- Web-Based Access Control (WAC)
- MAC-Based Access Control (MAC)
- Multiple Authentication
- Guest VLAN
- Microsoft® Network Access Protection (NAP)
- Three-Level User Accounts

### DES-3528

- 10/100BASE-TX x 24
- Combo 1000BASE-T/SFP x 2
- 1000BASE-T/Stacking Port x 2
- AC Power Supply
- Redundant Power Supply
- Physical Stack

### DES-3528P

- 10/100BASE-TX x 24 (PoE)
- Combo 1000BASE-T/SFP x 2
- 1000BASE-T/Stacking Port x 2
- AC Power Supply
- Redundant Power Supply
- Physical Stack

### DES-3552

- 10/100BASE-TX x 48
- Combo 1000BASE-T/SFP x 2
- 1000BASE-T/Stacking Port x 2
- AC Power Supply
- Redundant Power Supply
- Physical Stack

## DES-3528/DES-3552 Series



Model		DES-3528	DES-3528P	DES-3552
Interfaces	Fast Ethernet	24	24	48
	Gigabit Ethernet	2	2	2
	SFP Slots			
	Combo Gigabit/SFP Slots	2	2	2
	10GbE Slots			
General Features	Stackability	Virtual + Physical Stack (up to 8 Units)		
	Stacking Speed (per Port)	2 Gbps		
	Switching Capacity	12.8 Gbps	12.8 Gbps	17.6 Gbps
	Forwarding Mode	Store-and-Forward		
	Packet Buffer Memory	1 M		
	MAC Table	16 K		
	Flow Control	802.3x, HOL Blocking Prevention		
	MDI/MDIX	Configurable		
L2 Features	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS		
	803.2ad Link Aggregation	8 Groups, 8 Ports per Group		
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, Flow-Based, RSPAN		
	Loopback Detection	•		
	Cable Diagnostics	•		
L3 Features	IP Interfaces	16		
	Routing Protocols	Static		
	Policy-Based Routing	Based on ACL		
	Route Balancing			
	IPv6 Tunneling			
Virtual LAN (VLAN)	VRRP			
	VLANs	Static: 4 K, Dynamic: 255		
	GVRP	•		
	Protocol VLAN (802.1v)	•		
Multicasting	Double VLAN (Q-in-Q)	Port-Based / Selective		
	Groups	256		
	Protocols	IGMP v1 / v2 / v3, MLD v1, v2 Snooping		
Quality of Service (QoS)	Standard	802.1p, DSCP		
	Number of Queues	8		
	Mode	Strict / WRR / Strict+WRR		
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)		
Security	Bandwidth Control	Port-Based, Flow-Based		
	STP Security	BPDU Filtering, Root Restriction, UDLD		
	Per-Port MAC Limitation	•		
	Static MAC	64		
	Storm Control	Broadcast / Multicast / Unicast		
	IP-MAC-Port Binding	500 Entries		
	DHCP Spoofing Prevention	•		
	ARP Spoofing Prevention	•		
	Traffic Segmentation	•		
Authentication, Authorisation and Accounting (AAA)	D-Link SafeGuard Engine	•		
	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment		
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic VLAN Assignment		
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment		
	Network Access Protection (NAP)	802.1x NAP		
Access Control Lists (ACL)	Guest VLAN	•		
	Switch Access	RADIUS / TACACS+, 3-Level User Account		
	Rules	1,792		
Power over Ethernet	ACL Handling	Ether Type, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)		
	Time-Based ACL	•		
Management	Standard	802.3af, 802.3at		
	PoE Ports	802.3af: Ports 1-24 802.3at: Ports 1-8		
	PoE Budget	370 W		
	Time-Based PoE			
Physical and Environment	Switch Access	Web GUI, Telnet, Console		
	sFlow			
	SNMP	v1 / v2c / v3		
	DHCP	Server, Client, Relay (IPv4, IPv6)		
	RMON	•		
	TFTP Client	•		
	Syslog	•		
Modules / Transceivers	Power Supply	Internal		
	Max. Power Consumption	20.5 W	505.1 W	33.1 W
	Power Saving Technology			
	Operating Temperature	0 to 40 °C	0 to 50 °C	0 to 45 °C
	Operating Humidity	10% to 90% RH		
	Dimensions (W x D x H)	441 x 210 x 44 mm		
Other	Mean Time Between Failures (MTBF)	203,785 Hours	345,226 Hours	380,412 Hours
	10GbE Modules			
Other	XFP Transceivers			
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211		
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R		
Other	Redundant Power Supply	DPS-200	DPS-600	DPS-200

# xStack Gigabit Layer 2 Security Switches

## DGS-3200 Series



X S T A C K



dlinkgreen

The DGS-3200 Series consists of Security Gigabit switches that deliver high performance, flexible expansion and robust security. It executes firm network security and provides ACL functionalities to secure the internal IT network against external viruses.

- D-Link Single IP Management (Virtual Stack)
- Internet Group Multicast Protocol (IGMP) Snooping
- Multicast Listener Discovery (MLD) Snooping
- 802.1v Protocol VLAN
- IGMP Snooping Multicast (ISM) VLAN
- VLAN Trunking
- Private VLAN
- Quality of Service (QoS)
- Access Control List (ACL)
- Broadcast/Multicast/Unicast Storm Control
- Traffic Segmentation
- D-Link Safeguard Engine™
- IP-MAC-Port Binding
- Microsoft® Network Access Protection (NAP)
- ARP Spoofing Prevention
- 802.1X Port-Based Access Control
- 802.1X Host-Based Access Control
- Web-Based Access Control (WAC)
- MAC-Based Access Control (MAC)
- Compound Authentication
- Guest VLAN
- Simple Network Management Protocol (SNMP)

### DGS-3200-10

- 10/100/1000BASE-T x 8
- Combo 1000BASE-T/SFP x 2
- Fanless
- 11-inch, 1U Desktop

### DGS-3200-24

- 10/100/1000BASE-T x 20
- Combo 1000BASE-T/SFP x 4
- Smart Fan x 2
- Redundant Power Supply
- 19-inch, 1U Rack-Mount

## DGS-3200 Series



Model		DGS-3200-10	DGS-3200-24
Interfaces	Fast Ethernet		
	Gigabit Ethernet	8	20
	SFP Slots		
	Combo Gigabit/SFP Slots	2	4
	10GbE Slots		
General Features	Stackability	Virtual Stack (up to 32 Units)	
	Stacking Speed (per Port)		
	Switching Capacity	20 Gbps	48 Gbps
	Forwarding Mode	Store-and-Forward	
	Packet-Buffer Memory	128 K	768 K
	MAC Table	8 K	
	Flow Control	802.3x, HOL-Blocking Prevention	
	MDI/MDIX	Configurable	
L2 Features	Loop Protection	802.1Q, 802.1w, 802.1s	
	803.2ad Link Aggregation	5 Groups 8 Ports per Group	12 Groups 8 Ports per Group
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, Flow-Based	
	Loopback Detection	•	
Virtual LAN (VLAN)	Cable Diagnostics	•	
	VLANs	Static: 4 K, Dynamic: 255	
	GVRP	•	
	Protocol VLAN (802.1v)	•	
Multicasting	Double VLAN (Q-in-Q)	•	
	Groups	256	
	Protocols	IGMP v1 / v2 / v3, MLD v1, v2 Snooping	
Quality of Service (QoS)	Standard	802.1p, DSCP	
	Number of Queues	8	
	Mode	Strict / WRR	
	CoS Handling	LAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload	
Security	Bandwidth Control	Port-Based, Flow-Based	
	STP Security	BPDU Filtering, Root Restriction	
	Per-Port MAC Limitation	•	
	Static MAC	64	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port-Binding	512 Entries	
	DHCP Spoofing Prevention	•	
	ARP Spoofing Prevention	•	
	Traffic Segmentation	•	
	D-Link SafeGuard Engine	•	
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment	
	Web-Based Access Control (WAC)	Port-Based, Host-Based, Dynamic VLAN Assignment	
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment	
	Network Access Protection (NAP)	802.1x NAP, DHCP NAP	
	Guest VLAN	•	
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 3-Level User Account	
	Rules	1,792	
	ACL Handling	VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload	
Management	Time-Based ACL	•	
	Switch Access	Web GUI, Telnet, Console	
	sFlow	•	
	SNMP	v1 / v2c / v3	
	DHCP	Client, Relay (IPv4, IPv6)	
	RMON	•	
	TFTP Client	•	
Syslog	•		
Physical and Environment	Power Supply	Internal	
	Max. Power Consumption	20.9 W	41.9 W
	Power Saving Technology	Green Ethernet	
	Operating Temperature	0 to 40 °C	0 to 50 °C
	Operating Humidity	5% to 95% RH	
	Dimensions (W x D x H)	280 x 180 x 43 mm	440 x 210 x 44 mm
Modules / Transceivers	Mean Time-Between Failures (MTBF)	726,077 Hours	502,576 Hours
	10GbE Modules	•	
	XFP Transceivers	•	
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211	
Other	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R	
	Redundant Power Supply	DPS-200	DPS-200

# xStack Fast Ethernet Layer 2 Metro Ethernet Switches

## DES-3200 Series



X S T A C K



The DES-3200 Series Layer 2 xStack Managed Switch is designed for the Metro ETTX and FTTX market. This series provides 8/16/24 100Mbps Fast Ethernet connections plus 2/4 combo Gigabit/SFP ports.

- D-Link Single IP Management (Virtual Stack)
- Internet Group Multicast 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 Q-in-Q
- 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

### DES-3200-10

- 10/100BASE-TX x 8
- Combo 1000BASE-T/SFP x 2
- Fanless
- 9-inch, 1U Desktop

### DES-3200-18

- 10/100BASE-TX x 16
- Combo 1000BASE-T/SFP x 2
- Fanless
- 9-inch, 1U Desktop

## DES-3200 Series



Model		DES-3200-10	DES-3200-18
Interfaces	Fast Ethernet	8	16
	Gigabit Ethernet		
	SFP Slots		
	Combo Gigabit/SFP Slots	2	2
	10GbE Slots		
General Features	Stackability	Virtual Stack (up to 32 Units)	
	Stacking Speed (per Port)		
	Switching Capacity	5.6 Gbps	7.2 Gbps
	Forwarding Mode	Store-and-Forward	
	Packet Buffer Memory	384 K	
	MAC Table	8 K	
	Flow Control	802.3x, HOL Blocking Prevention	
	MDI/MDIX	Configurable	
L2 Features	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS	
	803.2ad Link Aggregation	5 Groups 8 Ports per Group	9 Groups 8 Ports per Group
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, Flow-Based	
	Loopback Detection	-	
Virtual LAN (VLAN)	Cable Diagnostics	-	
	VLANs	Static: 4 K, Dynamic: 255	
	GVRP	-	
	Protocol VLAN (802.1v)	-	
Multicasting	Double VLAN (Q-in-Q)	-	
	Groups	1 K	
Quality of Service (QoS)	Protocols	IGMP v1 / v2 / v3, MLD v1, v2 Snooping	
	Standard	802.1p, DSCP	
	Number of Queues	4	
	Mode	Strict / WRR	
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)	
Security	Bandwidth Control	Port-Based, Flow-Based	
	STP Security	BPDU Filtering, Root Restriction, UDLD	
	Per-Port MAC Limitation	-	
	Static MAC	64	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding	500 Entries	
	DHCP Spoofing Prevention	-	
	ARP Spoofing Prevention	-	
	Traffic Segmentation	-	
	D-Link SafeGuard Engine	-	
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment	
	Web-Based Access Control (WAC)	-	
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment	
	Network Access Protection (NAP)	802.1x NAP, DHCP NAP	
	Guest VLAN	-	
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 3-Level User Account	
	Rules	512	
	ACL Handling	Ether Type, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)	
Management	Time-Based ACL	-	
	Switch Access	Web GUI, Telnet, Console	
	sFlow	-	
	SNMP	v1 / v2c / v3	
	DHCP	Client, Relay (IPv4, IPv6)	
	RMON	-	
	TFTP Client	-	
Physical and Environment	Syslog	-	
	Power Supply	Internal	
	Max. Power Consumption	12.7 W	13.2 W
	Power Saving Technology	-	
	Operating Temperature	0 to 40 °C	
	Operating Humidity	5% to 95% RH	
Modules/ Transceivers	Dimensions (W x D x H)	228.5 x 180 x 44 mm	228.5 x 180 x 44 mm
	Mean Time Between Failures (MTBF)	873,750 Hours	743,115 Hours
	10GbE Modules	-	
	XFP Transceivers	-	
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211	
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R	

# xStack Layer 2 Stackable Gigabit Switches

## DGS-3120 Series



X S T A C K



dlinkgreen

The DGS-3120 Series is the ideal entry-level stackable solution for businesses looking to upgrade their network. 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 available with either the Standard Image (SI), which provides sophisticated features such as Quality of Service (QoS), traffic shaping and L2 multicasting or the Enhanced Image (EI), which provides advanced features like static routing and IPv6.

- Built-in 10 GbE Stacking Ports Built In
- 40Gb Stacking Bandwidth
- Stackable up to 6 Units
- Up to 288 Gigabit Ports in a Single Stack
- PoE/PoE+ Versions Available
- Comprehensive Security
- IPv6 Ready
- Microsoft NAP Compatible
- sFlow
- Redundant Power Supply Options
- SD Card Slot for Configuration and System Images
- Easy to Configure Through a Web Interface
- Power Saving Technology

### Optional Accessories

DEM-CB50	50 cm. 10GbE stacking cable
DEM-CB100	100 cm. 10GbE stacking cable

### DGS-3120-24TC

- 10/100/1000BASE-T x 20
- Combo 1000BASE-T/SFP x 4
- 10 GbE Stacking Ports x 2
- Redundant Power Supply

### DGS-3120-24PC

- 10/100/1000BASE-T x 20 (PoE)
- Combo 1000BASE-T/SFP x 4
- 10 GbE Stacking Ports x 2
- 802.3at PoE+
- Redundant Power Supply

### DGS-3120-24SC

- SFP Slots x 16
- Combo 1000BASE-T/SFP x 8
- 10 GbE Stacking Ports x 2
- Redundant Power Supply

### DGS-3120-48TC

- 10/100/1000BASE-T x 44
- Combo 1000BASE-T/SFP x 4
- 10 GbE Stacking Ports x 2
- Redundant Power Supply

### DGS-3120-48PC

- 10/100/1000BASE-T x 44 (PoE)
- Combo 1000BASE-T/SFP x 4
- 10 GbE Stacking Ports x 2
- 802.3at PoE+
- Redundant Power Supply

## DGS-3120 Series



Model	DGS-3120-24TC	DGS-3120-24PC	DGS-3120-24SC	DGS-3120-48TC	DGS-3120-48PC	
Interfaces	Fast Ethernet					
	Gigabit Ethernet	20	20		44	
	SFP Slots			16		
	Combo Gigabit/SFP Slots	4	4	8	4	4
	10GbE Slots					
General Features	Stackability	Physical Stack (up to 6 Units)				
	Stacking Speed (per Port)	10 Gbps				
	Switching Capacity	88 Gbps	88 Gbps	88 Gbps	136 Gbps	136 Gbps
	Forwarding Mode	Store-and-Forward				
	Packet Buffer Memory	2 M				
	MAC Table	16 K				
	Flow Control	802.3x, HOL Blocking Prevention				
	MDI/MDIX	Configurable				
L2 Features	Loop Protection	802.1Q, 802.1w, 802.1s, ERPS*				
	803.2ad Link Aggregation	32 Groups 8 Gb Ports per Group				
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, RSPAN, Flow-Based				
	Loopback Detection	•				
	Cable Diagnostics	•				
L3 Features	IP Interfaces	16*				
	Routing Protocols	Static*				
	Policy-Based Routing					
	Route Balancing					
	IPv6 Tunneling					
Virtual LAN (VLAN)	VLANs	4 K				
	GVRP	•				
	Protocol VLAN (802.1v)	•				
	Double VLAN (Q-in-Q)	•*				
Multicasting	Groups	1024				
	Protocols	IGMP v1 / v2 / v3, MLD v1, v2 Snooping				
Quality of Service (QoS)	Standard	802.1p, DSCP				
	Number of Queues	4				
	Mode	Strict / WRR				
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)				
	Bandwidth Control	Port-Based, Flow-Based				
Security	STP Security	BPDU Filtering, Root Restriction				
	Per-Port MAC Limitation	•				
	Static MAC	64				
	Storm Control	Broadcast / Multicast / Unicast				
	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 VLAN/ACL/QoS Assignment				
Authentication, Authorisation and Accounting (AAA)	Web-Based Access Control (WAC)	Port-Based, Host Based, Dynamic VLAN/ACL/QoS Assignment				
	MAC-Based Access Control (MAC)	Port-Based, Host Based, Dynamic VLAN/ACL/QoS Assignment				
	Network Access Protection (NAP)	801.1X NAP, DHCP NAP				
	Guest VLAN	•				
	Switch Access	RADIUS / TACACS+, 4-Level User Account				
Access Control Lists (ACL)	Rules	1500				
	ACL Handling	Ether Type, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-Defined)				
	Time-Based ACL	•				
Power over Ethernet	Standard		802.3af, 802.3at		802.3af, 802.3at	
	PoE Ports		1-20		1-44	
	PoE Budget		370 W		370 W	
	Time-Based PoE		•		•	
Management	Switch Access	Web GUI, Telnet, Console				
	sFlow	•*				
	SNMP	v1 / v2c / v3				
	DHCP	Client, Relay				
	RMON	•				
	TFTP Client	• (IPv4, IPv6*)				
Physical and Environment	Syslog	•				
	Power Supply			Internal		
	Max. Power Consumption	40.5 W	482.7 W	34.1 W	67.1 W	516.5 W
	Power Saving Technology	Green Ethernet				
	Operating Temperature	0 to 50 °C				
	Operating Humidity	10% to 90% RH				
	Dimensions (W x D x H)	440 x 210 x 44 mm	440 x 310 x 44 mm	440 x 210 x 44 mm	440 x 310 x 44 mm	440 x 430 x 44 mm
Mean Time Between Failures (MTBF)	TBD	TBD	TBD	TBD	TBD	
Modules / Transceivers	10GbE Modules					
	XFP Transceivers					
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211				
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R				
Other	Redundant Power Supply	DPS-200	DPS-700	DPS-200	DPS-500	DPS-700

\* Enhanced Image (EI) only

# Gigabit Layer 2 Managed Switches

## DGS-3100 Series



The DGS-3100 Series consists of managed Layer 2 Gigabit stackable switches designed to provide feature-rich, low-cost switching in the entry-level network management category.

- Internet Group Multicast Protocol (IGMP) Snooping
- Multicast Listener Discovery (MLD) Snooping
- Loopback Detection (LBD)
- GARP VLAN Registration Protocol (GVRP)
- Quality of Service (QoS)
- Access Control List (ACL)
- ARP Spoofing Prevention
- Broadcast/Multicast/Unicast Storm Control
- D-Link Safeguard Engine™
- Microsoft® Network Access Protection (NAP)
- Guest VLAN
- 802.1X Port-Based Access Control
- 802.1X Host-Based Access Control
- MAC-Based Access Control (MAC)
- Link Layer Discovery Protocol (LLDP)

### DGS-3100-24

- 10/100/1000BASE-T x 20
- Combo 1000BASE-T/SFP x 4
- Redundant Power Supply
- Physical Stack

### DGS-3100-24TG

- 10/100/1000BASE-T x 8
- SFP Slots x 16
- Redundant Power Supply
- Physical Stack

### DGS-3100-48

- 10/100/1000BASE-T x 44
- Combo 1000BASE-T/SFP x 4
- Redundant Power Supply
- Physical Stack

## DGS-3100 Series



Model		DGS-3100-24	DGS-3100-24TG	DGS-3100-48
Interfaces	Fast Ethernet			
	Gigabit Ethernet	20	8	44
	SFP Slots		16	
	Combo Gigabit/SFP Slots	4		4
	10GbE Slots			
General Features	Stackability	Physical Stack (up to 6 Units)		
	Stacking Speed (per Port)	10 Gbps		
	Switching Capacity	68 Gbps	68 Gbps	116 Gbps
	Forwarding Mode	Store-and-Forward		
	Packet Buffer Memory	768 K	768 K	1.5 M
	MAC Table	8 K		
	Flow Control	802.3x, HOL Blocking Prevention		
L2 Features	MDI/MDIX	Configurable		
	Loop Protection	802.1Q, 802.1w, 802.1s		
	803.2ad Link Aggregation	32 Groups		
	Port Mirroring	8 Gb Ports per Group		
	Loopback Detection	One-to-One, Many-to-One, RX/TX/Both		
Virtual LAN (VLAN)	Cable Diagnostics	•		
	VLANs	Static: 255, Dynamic: 255		
	GVRP	•		
	Protocol VLAN (802.1v)	•		
Multicasting	Double VLAN (Q-in-Q)	•		
	Groups	128		
Quality of Service (QoS)	Protocols	IGMP v1 / v2 / v3, MLD v1, v2 Snooping		
	Standard	802.1p, DSCP		
	Number of Queues	4		
	Mode	Strict / WRR		
	CoS Handling	Switch Port, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port		
Security	Bandwidth Control	Port-Based, Flow-Based		
	STP Security	BPDU Filtering, Root Restriction		
	Per-Port MAC Limitation	•		
	Static MAC	16		
	Storm Control	Broadcast / Multicast / Unicast		
	IP-MAC-Port Binding	500 Entries		
	DHCP Spoofing Prevention	•		
	ARP Spoofing Prevention	•		
	Traffic Segmentation	•		
	D-Link SafeGuard Engine	•		
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment		
	Web-Based Access Control (WAC)	•		
	MAC-Based Access Control (MAC)	Port-Based, Host-Based, Dynamic VLAN Assignment		
	Network Access Protection (NAP)	DHCP NAP		
	Guest VLAN	•		
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+, 3-Level User Account		
	Rules	240		
	ACL Handling	Ether Type, VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port		
Management	Time-Based ACL	•		
	Switch Access	Web GUI, Telnet, Console		
	sFlow	•		
	SNMP	v1 / v2c / v3		
	DHCP	Client, Relay (IPv4, IPv6)		
	RMON	•		
	TFTP Client	•		
Syslog	•			
Physical and Environment	Power Supply	Internal		
	Max. Power Consumption	37.9 W	26.5 W	77.4 W
	Power Saving Technology	Green Ethernet		
	Operating Temperature	0 to 45 °C	0 to 45 °C	0 to 45 °C
	Operating Humidity	10% to 90% RH		
	Dimensions (W x D x H)	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 310 x 44 mm
Modules / Transceivers	Mean Time Between Failures (MTBF)	212,377 Hours	195,655 Hours	103,924 Hours
	10GbE Modules	•		
	XFP Transceivers	•		
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211		
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R		
Other	Redundant Power Supply	DPS-200	DPS-200	DPS-500

# Fast Ethernet Layer 2 Managed Switches

## DES-3028/DES-3052 Series



The DES-3028 / DES-3052 Series provides flexible choices of 24 or 48 Fast Ethernet ports, with or without Power over Ethernet. Each switch is equipped with four Gigabit Ethernet ports including two combo SFPs that are capable of both Gigabit and Fast Ethernet (100BASE-FX) fibre connections for user-specific applications.

- D-Link Single IP Management (Virtual Stack)
- Internet Group Multicast Protocol (IGMP) Snooping
- Multicast Listener Discovery (MLD) Snooping
- Asymmetric VLAN
- IGMP Snooping Multicast (ISM) VLAN
- Double VLAN (Q-in-Q)
- Quality of Service (QoS)
- Access Control List (ACL)
- CPU Interface Filtering
- Broadcast/Multicast/Unicast Storm Control
- Traffic Segmentation
- D-Link Safeguard Engine™
- IP-MAC-Port Binding (IMPB)
- Microsoft® Network Access Protection
- 802.1X Port-Based Access Control
- 802.1X Host-Based Access Control
- Guest VLAN
- Simple Network Management Protocol (SNMP)
- Cable Diagnostic

### DES-3028

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

### DES-3028P

- 10/100BASE-TX x 24 (PoE)
- 10/100/1000BASE-T x 2
- Combo 1000BASE-T/SFP x 2
- DC Fan x 2

### DES-3052

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

### DES-3052P

- 10/100BASE-TX x 48 (PoE)
- 10/100/1000BASE-T x 2
- Combo 1000BASE-T/SFP x 2
- DC Fan x 3

## DES-3028/DES-3052 Series



Model		DES-3028	DES-3028P	DES-3052	DES-3052P
Interfaces	Fast Ethernet	24	24	48	48
	Gigabit Ethernet	2	2	2	2
	SFP Slots				
	Combo Gigabit/SFP Slots	2	2	2	2
	10GbE Slots				
General Features	Stackability	Virtual Stack (up to 32 Units)			
	Stacking Speed (per Port)				
	Switching Capacity	12.8 Gbps	12.8 Gbps	17.6 Gbps	17.6 Gbps
	Forwarding Mode	Store-and-Forward			
	Packet Buffer Memory	512 K	512 K	512 K	512 K
	MAC Table	8 K			
	Flow Control	802.3x, HOL Blocking Prevention			
	MDI/MDIX	Configurable			
L2 Features	Loop Protection	802.1Q, 802.1w, 802.1s			
	803.2ad Link Aggregation	6 Groups 8 Ports per Group			
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both, Flow-Based			
	Loopback Detection	•			
	Cable Diagnostics	•			
Virtual LAN (VLAN)	VLANs	Static: 4 K, Dynamic: 255			
	GVRP	•			
	Protocol VLAN (802.1v)	•			
	Double VLAN (Q-in-Q)	•			
Multicasting	Groups	128			
	Protocols	IGMP v1 / v2, MLD v1, v2 Snooping			
Quality of Service (QoS)	Standard	802.1p, DSCP			
	Number of Queues	4			
	Mode	Strict / WRR			
	CoS Handling	VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-defined)			
	Bandwidth Control	Port-Based, Flow-Based			
Security	STP Security	BPDU Filtering, Root Restriction			
	Per-Port MAC Limitation	•			
	Static MAC	16			
	Storm Control	Broadcast / Multicast / Unicast			
	IP-MAC-Port Binding	500 Entries			
	DHCP Spoofing Prevention	•			
	ARP Spoofing Prevention	•			
	Traffic Segmentation	•			
	D-Link SafeGuard Engine	•			
	802.1x Authentication	Port-Based, Host-Based, Dynamic VLAN Assignment			
Authentication, Authorisation and Accounting (AAA)	Web-Based Access Control (WAC)				
	MAC-Based Access Control (MAC)				
	Network Access Protection (NAP)	802.1x NAP, DHCP NAP			
	Guest VLAN	•			
Access Control Lists (ACL)	Switch Access	RADIUS / TACACS+			
	Rules	256			
	ACL Handling	VLAN ID, 802.1p, MAC, IP, IPv6, DSCP, Port, Protocol, Payload (User-defined)			
Power over Ethernet	Time-Based ACL	•			
	Standard		802.3af		802.3af
	PoE Ports		1-24		1-44
	PoE Budget		185 W		370 W
Management	Time-Based PoE				
	Switch Access	Web GUI, Telnet, Console			
	sFlow				
	SNMP	v1 / v2c / v3			
	DHCP	Client, Relay			
	RMON	•			
	TFTP Client	•			
Syslog	•				
Physical and Environment	Power Supply	Internal			
	Max. Power Consumption	18.8 W	217 W	25.5 W	395 W
	Power Saving Technology				
	Operating Temperature	0 to 40 °C			
	Operating Humidity	5% to 95% RH			
	Dimensions (W x D x H)	441 x 207 x 44 mm	441 x 207 x 44 mm	441 x 309 x 44 mm	441 x 309 x 44 mm
	Mean Time Between Failures (MTBF)	248,271 Hours	196,033 Hours	292,133 Hours	169,182 Hours
Modules/ Transceivers	10GbE Modules				
	XFP Transceivers				
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211			
	WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R			

# SmartPro Series Switches

## DGS-1500 Series



The DGS-1500 Series SmartPro switches are designed for businesses which require functions like L3 Static Routing and Single IP Management (Virtual Stacking) without upgrading to a fully managed switch. The DGS-1500 Series integrates advanced management and security functions that are similar to those of a managed switch, but less complex.

- Power Saving via LED and Port Shutoff, Port Standby, System Hibernation, Cable Length Detection, Link Status Detection
- SNMP Trap
- Trap for SmartConsole Utility
- Layer 3 Static Routing
- Auto Surveillance VLAN
- Loopback Detection
- Cable Diagnostics
- Configurable MDI/MDIX
- LLDP/LLDP-MED
- Supports IEEE 802.1p QoS, up to Four 802.1p Priority Queues per Port
- Auto Voice VLAN
- Highest Priority for VoIP Services
- SmartConsole Utility or Web-Based GUI
- Single IP Management (Virtual Stacking)
- Compact CLI Through Telnet
- Access Control List Secures Network
- Port Security Supports 64 MACs per Port
- ARP Spoofing Prevention
- D-Link Safeguard Engine

### Optional Accessories

#### Optional SFP Transceivers

DEM-310GT  
DEM-311GT  
DEM-312GT2  
DEM-314GT  
DEM-315GT  
DEM-210<sup>1</sup>  
DEM-211<sup>1</sup>

#### Optional WDM SFP Transceivers

DEM-330T/R  
DEM-331T/R

### DGS-1500-20

- 10/100/1000BASE-T x 16
- SFP x 4
- Virtual Stack
- Fanless
- Power-Saving Design

### DGS-1500-28

- 10/100/1000BASE-T x 24
- SFP x 4
- Virtual Stack
- Fanless
- Power-Saving Design

### DGS-1500-28P

- 10/100/1000BASE-T x 24
- SFP x 4
- PoE and PoE+ Support
- Optional Redundant Power Supply
- Virtual Stack
- Power-Saving Design

### DGS-1500-52

- 10/100/1000BASE-T x 48
- SFP x 4
- Virtual Stack
- Power-Saving Design

<sup>1</sup>Supported by DGS-1500-52 only

## DGS-1500 Series



Model		DGS-1500-20	DGS-1500-28	DGS-1500-28P	DGS-1500-52
Interfaces	Fast Ethernet				
	Gigabit Ethernet	16	24	24	48
	SFP Slots	4	4	4	4
	Combo Gigabit/SFP Slots				
	10GbE Slots				
General Features	Stackability	Virtual Stack (up to 32 units)			
	Stacking Speed (per Port)				
	Switching Capacity	40 Gbps	56 Gbps	56 Gbps	104 Gbps
	Forwarding Mode	Store-and-Forward			
	Packet Buffer Memory	1 MB			
	MAC Table	16 K			
	Flow Control	802.3x, HOL Blocking Prevention			
L2 Features	MDI/MDIX	Configurable			
	Loop Protection	802.1D, 802.1w			
	803.2ad Link Aggregation	10 Groups 8 Gb Ports per Group	14 Groups 8 Gb Ports per Group		26 Groups 8 Gb Ports per Group
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both			
	Loopback Detection	•			
L3 Features	Cable Diagnostics	•			
	IP Interfaces	4			
	Routing Protocols	Static			
	Policy-Based Routing				
	Route Balancing				
Virtual LAN (VLAN)	IPv6 Tunneling				
	VRRP				
	VLANs	Static: 4 K			
	GVRP	•			
Multicasting	Protocol VLAN (802.1v)				
	Double VLAN (Q-in-Q)				
	Groups	256			
	Protocols	IGMP v1/v2			
Quality of Service (QoS)	Standard	802.1p, DSCP			
	Number of Queues	4			
	Mode	Strict / WRR			
	CoS Handling	802.1p, DSCP			
	Bandwidth Control	Port-Based			
Security	STP Security				
	Per-Port MAC Limitation	•			
	Static MAC	64			
	Storm Control	Broadcast / Multicast / Unicast			
	IP-MAC-Port Binding	512 Entries			
	DHCP Spoofing Prevention	•			
	ARP Spoofing Prevention	•			
	Traffic Segmentation	•			
Authentication, Authorisation and Accounting (AAA)	D-Link SafeGuard Engine	•			
	802.1x Authentication	Port-Based			
	Web-Based Access Control (WAC)				
	MAC-Based Access Control (MAC)				
	Network Access Protection (NAP)				
Access Control Lists (ACL)	Guest VLAN				
	Switch Access	User Account			
	Rules	200	200	200	450
	ACL Handling	MAC, IP, 802.1p, DSCP			
Power over Ethernet	Time-Based ACL				
	Standard	802.3af 802.3at			
	PoE Ports	1-24			
	PoE Budget	185 W	370 W (740 W with RPS-700)		370 W
Management	Time-Based PoE	•			
	Switch Access	Web GUI, Telnet			
	sFlow				
	SNMP	v1 / v2c / v3			
	DHCP				
	RMON	•			
	TFTP Client	•			
Physical and Environment	Syslog				
	Power Supply	Internal			
	Max. Power Consumption	14.06 W	16.81 W		43.5 W
	Power Saving Technology	IEEE 802.3az EEE, Green Ethernet			
	Operating Temperature	-5 to 50°C			
	Operating Humidity	0% to 95% Non-Condensing			
	Dimensions (W x D x H)	440 x 140 x 44 mm	440 x 210 x 44 mm	440 x 310 x 44 mm	440 x 250 x 44 mm
Mean Time Between Failures (MTBF)	253,460 Hours	236,739 Hours		201,517 Hours	
Modules/ Transceivers	10GbE Modules				
	XFP Transceivers				
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT			DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211
	WDM SFP Transceivers	DEM-330T/R, DEM-331T/R			
Other	Redundant Power Supply			DPS-700	

# Gigabit Smart Switches

## DGS-1210 Series



The DGS-1210 Series is the latest generation of Smart Switches that feature D-Link Green technology. This series integrates advanced management and security functions that provide performance and scalability. The DGS-1210 Series is designed for SMBs/enterprises seeking to upgrade from Unmanaged Switches to Smart Switches, which gives customers easy access and simplifies operation at an affordable price.

- Internet Group Management Protocol (IGMP) Snooping
- Loopback Detection (LBD)
- Cable Diagnostics
- 802.1Q Virtual LAN (VLAN)
- Management VLAN
- Asymmetric VLAN
- Auto Voice VLAN
- Quality of Service (QoS)
- Access Control List (ACL)
- 802.1X Access Control
- Port Security
- Broadcast/Multicast/Unicast Storm Control
- D-Link Safeguard Engine™
- DHCP Server Screening
- ARP Spoofing Prevention
- Web-Based GUI
- Simple Network Management Protocol (SNMP)

### DGS-1210-10P

- 10/100/1000 BASE-T x 8 (PoE)
- Combo 1000 BASE-T/SFP x 2
- Fanless
- Reset Button
- 13-inch, 1U Desktop
- Power Savings

### DGS-1210-16

- 10/100/1000 BASE-T x 12
- Combo 1000 BASE-T/SFP x 4
- Fanless
- Reset Button
- 19-inch, 1U Rack-Mount
- Power Savings

### DGS-1210-24

- 10/100/1000 BASE-T x 20
- Combo 1000 BASE-T/SFP x 4
- Fanless
- Reset Button
- 19-inch, 1U Rack-Mount
- Power Savings

### DGS-1210-48

- 10/100/1000 BASE-T x 44
- Combo 1000 BASE-T/SFP x 4
- DC Fan x 2
- Reset Button
- 19-inch, 1U Rack-Mount
- Power Savings

## DGS-1210 Series



Model		DGS-1210-10P	DGS-1210-16	DGS-1210-24	DGS-1210-48
Interfaces	Fast Ethernet				
	Gigabit Ethernet	8	12	20	44
	Combo Gigabit/SFP Slots	2	4	4	4
General Features	Stackability				
	Stacking speed (per Port)				
	Switching Capacity	20 Gbps	32 Gbps	48 Gbps	96 Gbps
	Forwarding Mode	Store-and-Forward			
	Packet Buffer Memory	512 K	512 K	512 K	1 M
	MAC Table	8 K			
	Flow Control	802.3x, HOL Blocking Prevention			
L2 Features	MDI/MDIX	Configurable			
	Loop Protection	802.1Q, 802.1w			
	803.2ad Link Aggregation	5 Groups 8 Ports per Group		8 Groups 8 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both			
	Loopback Detection	•			
Virtual LAN (VLAN)	Cable Diagnostics	•			
	VLANs	Static 256			
	GVRP	•			
	Protocol VLAN (802.1v)	•			
	Double VLAN (Q-in-Q)	•			
Multicasting	Auto Voice VLAN	•			
	Auto Surveillance VLAN	•			
	Groups	256			
	Protocols	IGMP v1, v2 802.1p, DSCP			
Quality of Service (QoS)	Standard	802.1p, DSCP			
	Number of Queues	4			
	Mode	Strict / WRR			
	CoS Handling	802.1p, DSCP			
	Bandwidth Control	•			
Security	STP Security	•			
	Per-Port MAC Limitation	•			
	Static MAC	64			
	Storm Control	Broadcast / Multicast / Unicast			
	IP-MAC-Port Binding	•			
	DHCP Server Screening	•			
	ARP Spoofing Prevention	•			
	Traffic Segmentation	•			
	D-Link SafeGuard Engine	•			
Authentication, Authorisation and Accounting (AAA)	802.1x Authentication	Port-Based			
	Web-Based Access Control (WAC)	•			
	MAC-Based Access Control (MAC)	•			
	Network Access Protection (NAP)	•			
	Guest VLAN	•			
Access Control Lists (ACL)	Switch Access	•			
	Rules	240			
	Mac-Based ACL	VLAN ID, 802.1p, MAC, IP, DSCP, Port			
Power over Ethernet	Time-Based ACL	•			
	Standard	802.3af, 802.3at			
	PoE Ports	1-8			
	PoE Budget	78 W			
Management	Time-Based PoE	•			
	Switch Access	Web GUI, Telnet			
	sFlow	•			
	SNMP	v1 / v2c / v3			
	DHCP	Client			
	RMON	•			
Physical and Environment	TFTP Client	•			
	Syslog	•			
	Power Supply	Internal			
	Max. Power Consumption	109.6 W (PoE on) 14.45 W (PoE off)	17.4 W	24.1 W	59.1 W
	Power Saving Technology	Green Ethernet			
	Number of Fans	0	0	0	2
	Operating Temperature	0 to 40 °C			
	Operating Humidity	10% to 95% Non-Condensing			
Dimensions (W x D x H)	330 x 180 x 44 mm	440 x 210 x 44 mm	440 x 210 x 44 mm	440 x 250 x 44 mm	
Modules/ Transceivers	Mean Time Between Failures (MTBF)	205,249 Hours	799,491 Hours	410,948 Hours	322,402 Hours
	10GbE Modules	•			
	XFP Transceivers	•			
	SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211			
WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R				

# Fast Ethernet Smart Switches

## DES-1210 Series



The DES-1210 Series is the latest generation of Smart Switches, which integrates advanced management and security functions that provide performance and scalability. While easy to use, the DES-1210 Series provides a complete and affordable solution for small and medium-sized businesses.

- Internet Group Management Protocol (IGMP) Snooping
- Multicast Filtering
- 802.1Q Tagged Virtual LAN (VLAN)
- Management VLAN
- Asymmetric VLAN
- Auto Voice VLAN
- Quality of Service (QoS)
- Access Control List (ACL)
- 802.1X Access Control
- Broadcast/Multicast/Unicast Storm Control
- D-Link Safeguard Engine™
- DHCP Server Screening
- ARP Spoofing Prevention
- Web-Based GUI
- Simple Network Management Protocol (SNMP)

### DES-1210-08P

- 10/100 BASE-TX x 8
- 802.3af PoE
- Fanless
- Reset Button
- Desktop Size

### DES-1210-28

- 10/100 BASE-TX x 24
- 10/100/1000 BASE-T x 2
- Combo 1000 BASE-T/SFP x 2
- Fanless
- Reset Button
- 19-inch, 1U Rack-Mount

### DES-1210-28P

- 10/100 BASE-TX x 24
- 10/100/1000 BASE-T x 2
- Combo 1000 BASE-T/SFP x 2
- 802.3af PoE
- 802.3at PoE+
- 3 Smart Fans
- Reset Button
- 19-inch, 1U Rack-Mount

### DES-1210-52

- 10/100 BASE-TX x 48
- 10/100/1000 BASE-T x 2
- Combo 1000 BASE-T/SFP x 2
- Fanless
- Reset Button
- 19-inch, 1U Rack-Mount

## DES-1210 Series



Model		DES-1210-08P	DES-1210-28	DES-1210-28P	DES-1210-52
Interfaces	Fast Ethernet	8	24	24	48
	Gigabit Ethernet		2	2	2
	Combo Gigabit/SFP Slots		2	2	2
General Features	Stackability				
	Stacking Speed (per Port)				
	Switching Capacity	1.6 Gbps	12.8 Gbps	12.8 Gbps	17.6 Gbps
	Forwarding Mode	Store-and-Forward			
	Packet Buffer Memory	384 K	512 K	512 K	1 M
	MAC Table	8 K			
	Flow Control	802.3x, HOL Blocking Prevention			
L2 Features	MDI/MDIX	Configurable			
	Loop Protection	802.1Q, 802.1w			
	803.2ad Link Aggregation	8 Groups, 8 Ports per Group			
	Port Mirroring	One-to-One, Many-to-One, RX/TX/Both			
	Loopback Detection	•			
	Cable Diagnostics	•			
Virtual LAN (VLAN)	VLANs	Static: 256			
	GVRP				
	Protocol VLAN (802.1v)				
	Double VLAN (Q-in-Q)				
	Auto Voice VLAN	•			
Multicasting	Auto Surveillance VLAN	•			
	Groups	256			
	Protocols	IGMP v1, v2			
Quality of Service (QoS)	Standard	802.1p, DSCP			
	Number of Queues	4			
	Mode	Strict / WRR			
	CoS Handling	802.1p, DSCP			
	Bandwidth Control	•			
Security	STP Security				
	Per-Port MAC Limitation	•			
	Static MAC	64			
	Storm Control	Broadcast / Multicast / Unicast			
	IP-MAC-Port Binding				
	DHCP Server Prevention	•			
	ARP Spoofing Prevention	•			
	Traffic Segmentation	•			
Authentication, Authorisation and Accounting (AAA)	D-Link SafeGuard Engine	•			
	802.1x Authentication	Port-Based			
	Web-based Access Control (WAC)				
	MAC-based Access Control (MAC)				
	Network Access Protection (NAP)				
Access Control Lists (ACL)	Guest VLAN				
	Switch Access				
	Rules	240			
Power over Ethernet	Mac-Based ACL	VLAN ID, 802.1p, MAC, IP, DSCP, Port			
	Time-Based ACL				
	Standard	802.3af		802.3af, 802.3at	
	PoE Ports	1-8		802.3af: Ports 1-24 802.3at: Ports 1-4	
Management	PoE Budget	72 W		193 W	
	Time-Based PoE	•		•	
	Switch Access	Web GUI, Telnet			
	sFlow				
	SNMP	v1 / v2c / v3			
	DHCP	Client			
	RMON				
Physical and Environment	TFTP Client	•			
	Syslog	•			
	Power Supply	External	Internal	Internal	Internal
	Max. Power Consumption	89.4 W (PoE on) 9.7 W (PoE off)	17.6 W	245 W (PoE on) 26.4 W (PoE off)	28.9 W
	Power Saving Technology	Smart Fans			
	Number of Fans	0	0	3	0
	Operating Temperature	0 to 40 °C			
Operating Humidity	5% to 95% Non-Condensing				
Modules/ Transceivers	Dimensions (W x D x H)	190 x 120 x 38 mm	440 x 210 x 44 mm	440 x 250 x 44 mm	440 x 250 x 44 mm
	Mean Time Between Failures (MTBF)	350,704 Hours	419,467 Hours	197,343 Hours	289,012 Hours
	10GbE Modules				
	XFP Transceivers				
SFP Transceivers	DEM-310GT, DEM-311GT, DEM-312GT2, DEM-314GT, DEM-315GT, DEM-210, DEM-211				
WDM SFP Transceivers	DEM-330T, DEM-330R, DEM-331T, DEM-331R				

# Gigabit EasySmart Switches

## DGS-1100 Series



The DGS-1100 Series provides businesses with the benefits of a managed device but without the associated complexity and cost. Equipped with 16 or 24 Gigabit ports, the series integrates basic configurable functions that provide performance and scalability. With an easy-to-use web interface, the EasySmart Series helps users to quickly and easily deploy their network.

- Basic Configurable Options
- 11-Inch Metal Case. Comes with Adapters to Install in 19-Inch Racks
- Fanless, Silent Operation
- Improved Resiliency, Longer MTBF (Mean Time Between Failures)
- VLAN Support for Traffic Segmentation
- AutoSurveillance VLAN for Easy Integration with IP-Based Surveillance Systems
- Loopback Detection and Broadcast Storm Control to Avoid Network Downtime
- QoS (Quality of Service) and Bandwidth Control to Ensure Smooth Operation
- Cable Diagnostics Function to Help to Troubleshoot Wiring Problems
- Configurable Through a Web Interface or SmartConsole Utility
- 802.3az Energy Efficient Ethernet (EEE) Compliant

### DGS-1100-16

- 10/100/1000 BASE-T x 16
- 802.3ad Link Aggregation
- Static VLAN
- 802.1p QoS
- Fanless

### DGS-1100-24

- 10/100/1000 BASE-T x 24
- 802.3ad Link Aggregation
- Static VLAN
- 802.1p QoS
- Fanless

## DGS-1100 Series



Model		DGS-1100-16	DGS-1100-24
Interfaces	Fast Ethernet		
	Gigabit Ethernet	16	24
	Combo Gigabit/SFP Slots		
General Features	Stackability		
	Stacking Speed (per Port)		
	Switching Capacity	32 Gbps	32 Gbps
	Forwarding Mode	Store-and-Forward	
	Packet Buffer Memory	3.5 Mb	3.5 Mb
	MAC Table	8 K	8 K
	Flow Control	802.3x, HOL Blocking Prevention	
L2 Features	MDI/MDIX	Auto	
	Loop Protection		
	803.2ad Link Aggregation	8 Groups, 4 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One	
	Loopback Detection	•	
Virtual LAN (VLAN)	Cable Diagnostics	•	
	VLANs ID	32	
	GVRP		
	Protocol VLAN (802.1v)		
	Double VLAN (Q-in-Q)		
Multicasting	Auto Voice VLAN	•	
	Auto Surveillance VLAN	•	
	Groups	32	
	Protocols	IGMP v1/v2	
Quality of Service (QoS)	Standard	802.1p	
	Number of Queues	4	
	Mode	Strict / WRR	
	CoS Handling	•	
Security	Bandwidth Control	•	
	STP Security		
	Per-Port MAC Limitation	•	
	Static MAC	128	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding		
	DHCP Server Prevention		
	ARP Spoofing Prevention		
	Traffic Segmentation		
Management	D-Link SafeGuard Engine		
	Switch Access	Web GUI	
	sFlow		
	SNMP		
	DHCP		
	RMON		
Physical and Environment	TFTP Client		
	Syslog		
	Power Supply	Internal	
	Max. Power Consumption	5.96 W	7.68 W
	Power Saving Technology	IEEE 802.3az Energy Efficient Ethernet	
	Number of Fans	0	
	Operating Temperature	0 to 40 °C	
Operating Humidity	10% to 95% RH Non-Condensing		
Dimensions (W x D x H)	280 x 180 x 44 mm		
Mean Time Between Failures (MTBF)	988,205 Hours	774,990 Hours	

# Fast Ethernet EasySmart 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, the series integrates basic configurable functions that provide performance and scalability. With an easy to use web interface, the EasySmart Series helps users to quickly and easily deploy their network.

- Basic Configurable Options
- 11-inch Metal Case. Comes with Adapters to Install in 19-Inch Racks
- Fanless, Silent Operation
- Improved Resiliency, Longer MTBF (Mean Time Between Failures)
- VLAN Support for Traffic Segmentation
- AutoSurveillance VLAN for Easy Integration with IP-Based Surveillance Systems
- Loopback Detection and Broadcast Storm Control to Avoid Network Downtime
- QoS (Quality of Service) and Bandwidth Control to Ensure Smooth Operation
- Cable Diagnostics Function to Help to Troubleshoot Wiring Problems
- Configurable Through a Web Interface or SmartConsole Utility

### DES-1100-16

- 10/100 BASE-TX x 16
- 802.3ad Link Aggregation
- Static VLAN
- 802.1p QoS
- Fanless

### DES-1100-24

- 10/100 BASE-TX x 24
- 802.3ad Link Aggregation
- Static VLAN
- 802.1p QoS
- Fanless

## DES-1100 Series



Model		DES-1100-16	DES-1100-24
Interfaces	Fast Ethernet	16	24
	Gigabit Ethernet		
	Combo Gigabit/SFP Slots		
General Features	Stackability		
	Stacking Speed (per Port)		
	Switching Capacity	3.2 Gbps	4.8 Gbps
	Forwarding Mode	Store-and-Forward	
	Packet Buffer Memory	1.75 Mb	
	MAC Table	8 K	
	Flow Control	802.3x	
	MDI/MDIX	Auto	
L2 Features	Loop Protection		
	803.2ad Link Aggregation	2 Groups, 4 Ports per Group	
	Port Mirroring	One-to-One, Many-to-One	
	Loopback Detection	•	
	Cable Diagnostics	•	
Virtual LAN (VLAN)	VLANs ID	32	
	GVRP		
	Protocol VLAN (802.1v)		
	Double VLAN (Q-in-Q)		
	Auto Voice VLAN		
	Auto Surveillance VLAN		
Multicasting	Groups	32	
	Protocols	IGMP v1/v2	
Quality of Service (QoS)	Standard	802.1p	
	Number of Queues	2	
	Mode	Strict / WRR	
	CoS Handling	•	
	Bandwidth Control	•	
Security	STP Security		
	Per-Port MAC Limitation		
	Static MAC	128	
	Storm Control	Broadcast / Multicast / Unicast	
	IP-MAC-Port Binding		
	DHCP Server Prevention		
	ARP Spoofing Prevention		
	D-Link SafeGuard Engine		
Management	Switch Access	Web GUI	
	sFlow		
	SNMP		
	DHCP		
	RMON		
	TFTP Client		
	Syslog		
Physical and Environment	Power Supply		Internal
	Max. Power Consumption	5.96 W	7.68 W
	Power Saving Technology		
	Number of Fans	0	
	Operating Temperature	0 to 40 °C	
	Operating Humidity	10% to 90% RH Non-Condensing	
	Dimensions (W x D x H)	280 x 125 x 44 mm	
Mean Time Between Failures (MTBF)	597,779 Hours		562,066 Hours

# Gigabit Unmanaged Switches

## DGS-1000 Series



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 to simplify installation. They make use of D-Link Green technology to reduce power consumption and provide 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.

- 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

### DGS-1008P



- 10/100/1000BASE-T x 8
- 802.3af PoE Ports x 4
- External Power Supply
- Desktop Size
- Fanless

### DGS-1016D



- 10/100/1000BASE-T x 16
- Internal Power Supply
- 11-inch, 1U Desktop and Rack-Mount
- Fanless
- Power Savings

### DGS-1024D



- 10/100/1000BASE-T x 24
- Internal Power Supply
- 11-inch, 1U Desktop and Rack-Mount
- Fanless
- Power Savings

### DGS-105



- IEEE 802.3ab 1000BASE-T x 5
- Robust Metal Product Housing
- 802.3az Energy Efficient Ethernet (EEE)
- Cable Diagnostics Function
- Slot for Kensington Security Locks

### DGS-108



- IEEE 802.3ab 1000BASE-T x 8
- Robust Metal Product Housing
- 802.3az Energy Efficient Ethernet (EEE)
- Cable Diagnostics Function
- Slot for Kensington Security Locks

## DGS-1000 Series



Model		DGS-1008P	DGS-1016D	DGS-1024D
Interfaces	100BASE-TX			
	1000BASE-T	8	16	24
	100BASE-FX			
General Features	Switching Capacity	1.6 Gbps	32 Gbps	48 Gbps
	Forwarding Mode	Store-and-Forward		
	Packet Buffer Memory	192 KB	512 KB	512 KB
	MAC Table	4 K	8 K	8 K
	Flow Control	802.3x		
	MDI/MDIX	Auto		
Quality of Service (QoS)	Standard	802.1p, DSCP	802.1p	802.1p
	Number of Queues		4	
	Mode	Strict		
Power over Ethernet	Standard	802.3af		
	PoE Ports	1-4		
	PoE Budget	52 W		
Physical and Environment	Power Supply	External	Internal	Internal
	Power Saving Technology	Green Ethernet		
	Number of Fans	0	0	0
	Operating Temperature	0 to 40 °C		
	Operating Humidity	10% to 90% RH Non-Condensing		
	Dimensions (W x D x H)	190 x 120 x 38 mm	280 x 180 x 44 mm	280 x 180 x 44 mm

## DGS-105/108 Series



Model		DGS-105	DGS-108
Interfaces	100BASE-TX		
	1000BASE-T	5	8
	100BASE-FX		
General Features	Switching Capacity	10 Gbps	16 Gbps
	Forwarding Mode	Store-and-Forward	
	Packet Buffer Memory	128 K	128 K
	MAC Table	2 K	8 K
	Flow Control	IEEE 802.3x	IEEE 802.3x
	MDI/MDIX	Auto MDI/MDIX adjustment for all ports	
Quality of Service (QoS)	Standard	IEEE 802.1p	IEEE 802.1p
	Number of Queues	4 Queues	4 Queues
	Mode	Strict	Strict
Power over Ethernet	Standard		
	PoE Ports		
	PoE Budget		
Physical and Environment	Power Supply	External 5 V/1 A Level "V" Power Adapter	
	Power Saving Technology	Green Ethernet and IEEE 802.3az Energy-Efficient Ethernet (EEE)	
	Number of Fans		
	Operating Temperature	30 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 28 mm

# Fast Ethernet Unmanaged Switches

## DES-1000 Series

The DES-1000 Series consists of Unmanaged Ethernet Switches designed for cost effective Small Office Home Office (SOHO) and workgroup connection. They use the 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 to simplify installation.

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

### DES-1008F



- 10/100BASE-TX x 7
- 100BASE-FX x 1
- External Power Supply
- Desktop Size
- Fanless

### DES-1005P



- 5 Fast Ethernet Ports  
(1 port PoE enabled)
- Supports 802.3af PoE (up to 15.4W)
- QoS Support for Traffic Prioritisation
- Green Ethernet technology
- Fanless - Silent Operation

### DES-1016D



- 10/100BASE-TX x 16
- Internal Power Supply
- 11-inch, 1U Desktop and Rack-Mount
- Fanless

### DES-1016R+



- 10/100BASE-TX x 16
- Expansion Slot x 1
- Internal Power Supply
- 19-inch, 1U Rack-Mount
- Fanless

#### Optional Module

DES-102F 2-Port 100BASE-FX, MMF, SC, 2km

### DES-1024D



- 10/100BASE-TX x 24
- Internal Power Supply
- 11-inch, 1U Desktop and Rack-Mount
- Fanless

### DES-1024R+



- 10/100BASE-TX x 24
- Expansion Slot x 1
- Internal Power Supply
- 19-inch, 1U Rack-Mount
- Fanless

#### Optional Module

DES-102F 2-Port 100BASE-FX, MMF, SC, 2km

### DES-1026G



- 10/100BASE-TX x 24
- 10/100/1000BASE-T x 2
- Internal Power Supply
- 19-inch, 1U Rack-Mount
- Fanless

## 5/8 Port Fast Ethernet Switches

### DES-105



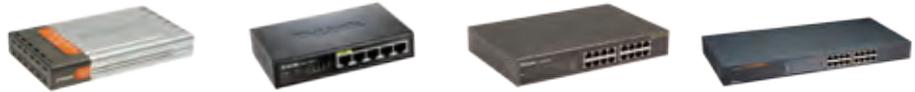
- 802.3u 100BASE-TX x5
- Plug and Play Operation
- QoS Functionality
- Robust Product Metal Housing
- Low Energy Consumption

### DES-108



- 802.3u 100BASE-TX x8
- Plug and Play Operation
- QoS Functionality
- Robust Product Metal Housing
- Low Energy Consumption

## DES-1000 Series



Model		DES-1008F	DES-1005P	DES-1016D	DES-1016R+
Interfaces	100BASE-TX	7	5	16	24
	1000BASE-T				
	100BASE-FX	1			2 (optional)
General Features	Switching Capacity	1.6 Gbps	1 Gbps	3.2 Gbps	3.2 Gbps
	Forwarding Mode	Store-and-Forward			
	Packet Buffer Memory	96 KB	64 KB	160 KB	256 KB
	MAC Table	1 K	2 K	8 K	4 K
	Flow Control	802.3x			
	MDI/MDIX	Auto			
Quality of Service (QoS)	Standard		802.1p	802.1p	
	Number of Queues		4		
	Mode		Strict	Strict	
Power over Ethernet	Standard		802.3af		
	PoE Ports		1		
	PoE Budget		15.4 W		
Physical and Environment	Power Supply	External	External		Internal
	Power Saving Technology		Yes		
	Number of Fans	0			
	Operating Temperature	0° to 40°C			
	Operating Humidity	10% to 90% RH Non-Condensing			
	Dimensions (W x D x H)	192 x 117 x 32 mm	140 x 85 x 28	280 x 180 x 44 mm	441 x 207 x 44 mm
Modules	DES-102F				



Model		DES-1024D	DES-1024R+	DES-1026G
Interfaces	100BASE-TX	24	24	24
	1000BASE-T			2
	100BASE-FX		2 (optional)	
General Features	Switching Capacity	4.8 Gbps	4.8 Gbps	8.8 Gbps
	Forwarding Mode	Store-and-Forward		
	Packet Buffer Memory	160 KB	256 KB	320 KB
	MAC Table	8 K	4 K	8 K
	Flow Control	802.3x		
	MDI/MDIX	Auto		
Quality of Service (QoS)	Standard	802.1p		
	Number of Queues	2		
	Mode	Strict		
Physical and Environment	Power Supply	Internal		
	Power Saving Technology			
	Number of Fans	0		
	Operating Temperature	0° to 40°C		
	Operating Humidity	10% to 90% RH Non-Condensing		
	Dimensions (W x D x H)	280 x 180 x 44 mm	441 x 207 x 44 mm	441 x 140 x 44 mm
Modules	DES-102F			

## DES-105/108 Series



Model		DES-105	DES-108
Interfaces	100BASE-TX	5	8
	1000BASE-T		
	100BASE-FX		
General Features	Switching Capacity	1.0 Gbps	1.6 Gbps
	Forwarding Mode	Store-and-Forward	
	Packet Buffer Memory	384 KBytes per Device	768 KBytes per Device
	MAC Table	2 K	1 K
	Flow Control	IEEE 802.3x	
	MDI/MDIX	Auto MDI/MDIX Adjustment for all Ports	
Quality of Service (QoS)	Standard	IEEE 802.1p	IEEE 802.1p
	Number of Queues	2 Queues	2 Queues
	Mode	Strict	WRR Mode
Power over Ethernet	Standard		
	PoE Ports		
	PoE Budget		
Physical and Environment	Power Supply	External 5 V/1 A Level "V" Power Adapter	
	Power Saving Technology	Green Ethernet and IEEE 802.3az Energy Efficient Ethernet (EEE)	
	Number of Fans		
	Operating Temperature	0 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 28 mm

# Network Management D-View 6.0

## DV-600S and DV-600P

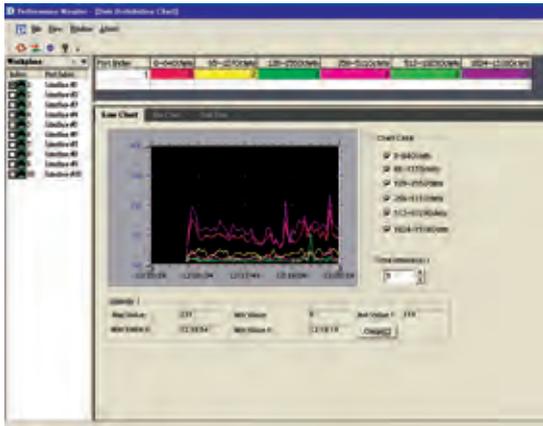


D-View 6.0 provides user-friendly interface with easy access to all the features and tools from a single location. D-View is easy to learn and can help ease the administrator's task of manually creating network topology because it provides robust features for quick generation of such topology within the software. The administrator can also import or export the topology as and when required.



Model	D-View 6.0 Standard (DV-600S)	D-View 6.0 Professional (DV-600P)
Hardware Requirement	CPU: 1.4GHz and above; DRAM: 1G and above; Hard Disk: 200MB; Ethernet Interface: 10/100/1000Mbps	
Software Requirement	Internet Explorer 6 SP1 and above; Microsoft® XML Parser; SDK	
Operating System Requirement	Microsoft® Windows 2000 Server SP4 Microsoft® Windows 2000 Advanced Server SP4 Microsoft® Windows 2003 SP2 Microsoft® XP Home / Professional SP2	Microsoft® Windows 2000 Server SP4 Microsoft® Windows 2000 Advanced Server SP4 Microsoft® Windows 2003 SP2
Database Management System Requirement	-	Microsoft® SQL Server 2000 SP3 Microsoft® SQL Server 2005
Architecture	Standalone Architecture	Client-Server Architecture
Login	Single User Login	Multiple User Login
No. of Supported Nodes	<=1,000	>=1,000

Features	
Network Management	<ul style="list-style-type: none"> <li>Automatically discover new devices in the network</li> <li>Periodically poll network devices to monitor their status</li> <li>Provide an intuitive view of managed devices in a topology</li> <li>Support multiple, concurrent administrators</li> <li>Integrate with all SNMP-enabled devices</li> </ul>
Fault / Event Management	<ul style="list-style-type: none"> <li>Notify administrator when new trap events occur through email, audio or visual alerts</li> <li>Support customised notifications - based on severity of event</li> </ul>
Device Management	<ul style="list-style-type: none"> <li>Central management centre for D-Link's end-to-end security solutions</li> <li>Provide backup and restoration of configuration files</li> <li>Manage third-party devices using the MIB compiler and MIB browser</li> </ul>
Performance Management	<ul style="list-style-type: none"> <li>Retrieve and monitor packet information for specific Ports such as error rate, packet size and Port flow statistics - based on RMON protocol or RFC 1213 standard</li> </ul>
MIB Utilities	<ul style="list-style-type: none"> <li>Powerful, easy-to-use MIB compiler and browser</li> <li>Support free and lost views for viewing devices in a domain</li> </ul>
D-View Plug-ins	<ul style="list-style-type: none"> <li>E2ES Console Plug-in</li> <li>Wireless Plug-in</li> </ul>



Performance



Topology Map

## D-View Plug-ins

Model	Description	Products	Configuration and Management	Monitoring	RePorting
E2ES Plug-in	D-Link's D-View E2ES (End-to-End Security) console plug-in facilitates the configuration and management of all of D-Link's managed switches, enabling users to centrally configure, monitor and react to network threats. The integration of the E2ES (End-to-End Security) plug-in into D-Link's D-View management software provides a simple end-to-end containment and protection solution to ensure Gateway, End-Point and Joint switch and Firewall Security, resulting in reduced management and monitoring costs.	<p>xStack Switches DGS-3600, DGS-3400, DGS-3200, DES-3800, DES-3528/52 Series</p> <p>Managed Switches DGS-3100, DES-3028/52 Series</p>	<p>Integrated Console for switches including</p> <ul style="list-style-type: none"> <li>IP-MAC-Port Binding (IMPB)</li> <li>Access Control List (ACL)</li> <li>802.1X Authentication</li> <li>MAC-Based Access Control (MAC)</li> <li>Web-Based Access Control (WAC)</li> <li>Loopback Detection (LBD)</li> <li>Port Security</li> <li>Microsoft® Network Access Protection (NAP)</li> </ul>	<ul style="list-style-type: none"> <li>Built-in RADIUS Service</li> <li>Microsoft® Network Access Protection (NAP)</li> </ul>	<ul style="list-style-type: none"> <li>System resource statistics</li> <li>RePorting for passed authentication</li> <li>RePorting for failed authentication</li> <li>RePorting for logged-in Users</li> <li>RePorting for database backup and restore</li> </ul>
Wireless Plug-in	D-Link's D-View Wireless Plug-in is a platform for managing enterprise wireless and wired LAN network. In addition to D-View's LAN management functionality, Wireless Plug-in provides a unified console for managing the broad portfolio of D-Link's enterprise wireless LAN products, including Unified Switches, Unified Access Points and Standalone Access Points. With D-View Wireless Plug-in, IT managers can control, configure and monitor all D-Link Switches and Wireless Access Points from a single location, significantly reducing operation overhead and total cost of ownership (TCO).	<p>Unified Switches DWS-3000, DWS-4000 Series</p> <p>Unified Access Points DWL-3500AP, DWL-8500AP, DWL-8600AP</p> <p>Stand-alone Access Points DAP-2590, DWL-3200AP, DWL-8200AP</p>	<ul style="list-style-type: none"> <li>Multiple Unified Switch Management</li> <li>Unified Access Point Management</li> <li>Batch configuration for Access Points of same Model</li> <li>Different wireless profiles are available to set AP configuration</li> </ul>	<ul style="list-style-type: none"> <li>Rogue AP Detection</li> <li>Client Statistics</li> <li>AP Statistics</li> <li>Global Statistics</li> </ul>	<p>Display a variety of AP reReports for easier management and troubleshooting including</p> <ul style="list-style-type: none"> <li>Client Association</li> <li>Security</li> <li>AP Utilisation</li> <li>AP Channel Usage</li> </ul>

# SFP/XFP Transceivers

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

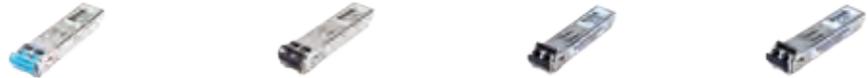
These modules can be installed into switches and media converters.

## Fast Ethernet SFP Transceivers



Model	DEM-210	DEM-211
Standard	IEEE 802.3u 100 BASE-FX	IEEE 802.3u 100 BASE-FX
Connector	Duplex LC	Duplex LC
Fibre Type	Single-Mode	9/125 $\mu\text{m}$
	Multi-Mode	62.5/125 $\mu\text{m}$
Wavelength	1310 nm	1310 nm
Max. Distance	15 Km	2 Km
Power	3.3 V	3.3 V
Hot-Pluggable	•	•

## Gigabit Ethernet SFP Transceivers



Model	DEM-310GT	DEM-311GT	DEM-314GT	DEM-315GT
Standard	IEEE 802.3z 1000 BASE-LX	IEEE 802.3z 1000 BASE-SX	IEEE 802.3z 1000 BASE-LX	IEEE 802.3z 1000 BASE-LX
Connector	Duplex LC	Duplex LC	Duplex LC	Duplex LC
Fibre Type	Single-Mode	9/125 $\mu\text{m}$	9/125 $\mu\text{m}$	9/125 $\mu\text{m}$
	Multi-Mode	50/125 $\mu\text{m}$ 62.5/125 $\mu\text{m}$	50/125 $\mu\text{m}$ 62.5/125 $\mu\text{m}$	
Wavelength	1310 nm	850 nm	1310 nm	1550 nm
Max. Distance	10 Km	550 m	50 Km	80 Km
Power	3.3 V	3.3 V	3.3 V	3.3 V
Hot-Pluggable	•	•	•	•

## Gigabit Ethernet WDM Bi-Directional SFP Transceivers



Model	DEM-330R <sup>1</sup>	DEM-330T <sup>1</sup>	DEM-331R <sup>2</sup>	DEM-331T <sup>2</sup>
Standard	IEEE 802.3z 1000 BASE-BX			
Connector	Simplex LC	Simplex LC	Simplex LC	Simplex LC
Fibre Type	Single-Mode	9/125 $\mu\text{m}$	9/125 $\mu\text{m}$	9/125 $\mu\text{m}$
	Multi-Mode			
Wavelength	TX: 1310 nm RX: 1550 nm	TX: 1550 nm RX: 1310 nm	TX: 1310 nm RX: 1550 nm	TX: 1550 nm RX: 1310 nm
Max. Distance	10 Km	10 Km	40 Km	40 Km
Power	3.3 V	3.3 V	3.3 V	3.3 V
Hot-Pluggable	•	•	•	•

<sup>1</sup> DEM-330R and DEM-330T used as a pair

<sup>2</sup> DEM-331R and DEM-331T used as a pair

## 10 Gigabit Ethernet SFP+/XFP Transceivers



Model	DEM-431XT	DEM-432XT	DEM-421XT	DEM-422XT	DEM-423XT
Standard	IEEE 802.3ae 10G BASE-SR	IEEE 802.3ae 10G BASE-LR	IEEE 802.3ae 10G BASE-SR	IEEE 802.3ae 10G BASE-LR	IEEE 802.3ae 10G BASE-ER
Form Factor	SFP+	SFP+	XFP	XFP	XFP
Connector	Duplex LC	Duplex LC	Duplex LC	Duplex LC	Duplex LC
Fibre Type	Single-Mode	9/125 $\mu\text{m}$		9/125 $\mu\text{m}$	9/125 $\mu\text{m}$
	Multi-Mode	50/125 $\mu\text{m}$ 62.5/125 $\mu\text{m}$		50/125 $\mu\text{m}$ 62.5/125 $\mu\text{m}$	
Wavelength	850 nm	1310 nm	850 nm	1310 nm	1550 nm
Max. Distance	300 m	10 Km	300 m	10 Km	40 Km
Power	3.3 V	3.3 V	3.3/5 V	3.3/5 V	3.3/5 V
Hot-Pluggable	•	•			

# Redundant Power Supplies

## DPS Series



Model	DPS-200	DPS-500	DPS-500DC	DPS-600	DPS-700
Output Power	60 W	140 W	140 W	500 W	589 W
Input Power	90 to 264 VAC	90 to 264 VAC	-36 to -72 VDC	90 to 264 VAC	90 to 264 VAC
Dimensions (mm)	196 x 195 x 50	196 x 195 x 50	196 x 195 x 50	441 x 139 x 44.5	441 x 139 x 44
Mounting Options (see table below)	DPS-800 DPS-900	DPS-800 DPS-900	DPS-800	19" rack, 1U	19" rack, 1U

Compatible Switches	DPS-200	DPS-500	DPS-500DC	DPS-600	DPS-700
DES-3528	•				
DES-3528P				•	
DES-3552	•				
DGS-3100-24	•				
DGS-3100-24TG	•				
DGS-3100-48		•	•		
DGS-3120-24TC	•				
DGS-3120-24PC					•
DGS-3120-24SC	•				
DGS-3120-48TC		•			
DGS-3120-48PC					•
DGS-3200-10	•				
DGS-3200-24	•				
DGS-3427		•	•		
DGS-3426P		•	•		
DGS-3450		•	•		
DGS-3612G		•	•		
DGS-3627		•	•		
DGS-3627G		•	•		
DGS-3650		•	•		
DWS-3024L				•	
DWS-3024				•	
DWS-4026				•	



Mounting Options	DPS-800	DPS-900
No. of RPS Slots	2	8
Form Factor	19" rack, 1U	19" rack, 5U

# Modules and Media Converters

## DES, DEM and DMC Series



Modules	DES-102F	DEM-410CX	DEM-410X
Standard	IEEE 802.3u 100 BASE-FX	IEEE 802.3ak 10-Gigabit Ethernet	IEEE 802.3ae 10-Gigabit Ethernet
No. of Ports	2	1	1
Connector	SC (Fibre)	CX4 (Copper)	XFP (Fibre)
Accessories		DEM-CB100	DEM-421XT DEM-422XT
Compatibility	DES-1016R+ DES-1024R+	DGS-3426P DGS-3427 DGS-3450 DGS-3627 DGS-3627G DGS-3650 DWS-4026	DGS-3426P DGS-3427 DGS-3450 DGS-3627 DGS-3627G DGS-3650 DWS-4026



Media Converters	DMC-300SC	DMC-515SC	DMC-530SC	DMC-700SC	DMC-810SC
Standards	10/100 BASE-TX 100 BASE-TX	10/100 BASE-TX 100 BASE-TX	10/100 BASE-TX 100 BASE-TX	100 BASE-TX 1000 BASE-SX	100 BASE-TX 1000 BASE-LX
Connectors	SC / RJ-45	SC / RJ-45	SC / RJ-45	SC / RJ-45	SC / RJ-45
Data Rate	100 Mbps	100 Mbps	100 Mbps	1 Gbps	1 Gbps
Fibre Type	Multi-Mode	Single-Mode	Single-Mode	Multi-Mode	Single-Mode
Max. Distance	2 Km	15 Km	30 Km	550 m	10 Km



Chassis and Accessories	DMC-1000	DMC-1001	DMC-1002
Description	16-Slot Media Converter Chassis with internal Power Supply	Redundant Power Supply for DMC-1000	SNMP Management Module for DMC-1000

# Power over Ethernet (PoE)

## DWL and DPE Series

D-Link's Power over Ethernet (PoE) adapters are designed to help simplify network maintenance and deployments 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 wall AC outlets may be inaccessible.

### DWL-P50

#### 5/12VDC PoE Splitter



##### Main Features

- Use with a PoE Switch or Midspan
- Supply Power to Devices

##### Physical Features

- IEEE 802.3af Power over Ethernet
- Terminal Unit x 1
- 5VDC and 12VDC Output
- Output Selection via DIP Switch

### DWL-P200

#### 5/12VDC PoE Kit



##### Main Features

- Use without a PoE Switch
- Supply Power to Devices

##### Physical Features

- Base Unit x 1
- Terminal Unit x 1
- 5VDC and 12VDC Output
- Output Selection via DIP Switch

### DPE-101GI

#### 1-Port Gigabit PoE Injector



##### Main Features

- Use without a PoE switch
- Supply Power to Devices

##### Physical Features

- Terminal Unit x 1
- Max Power Input 48 V
- Gigabit Speed
- To use only with D-Link's Access Points



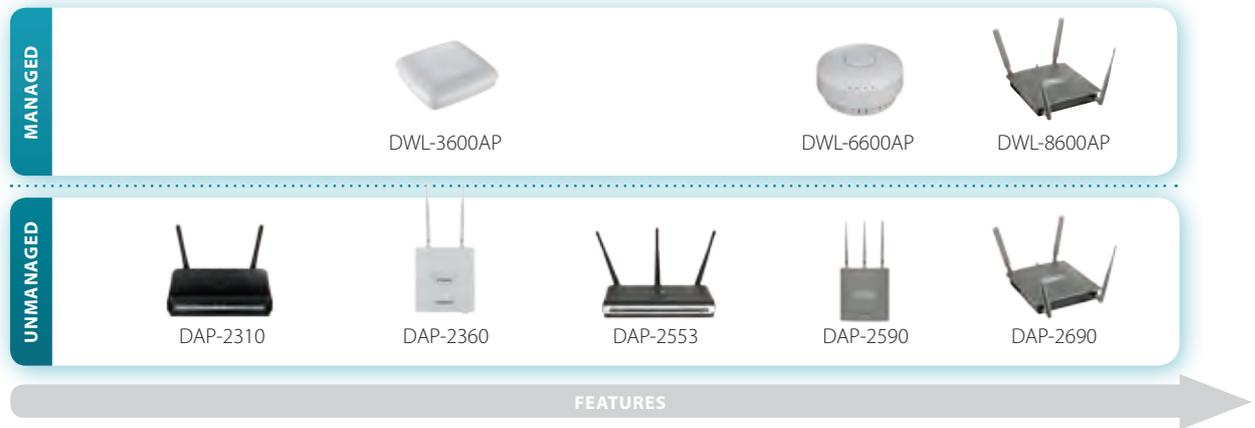
# Business Wireless



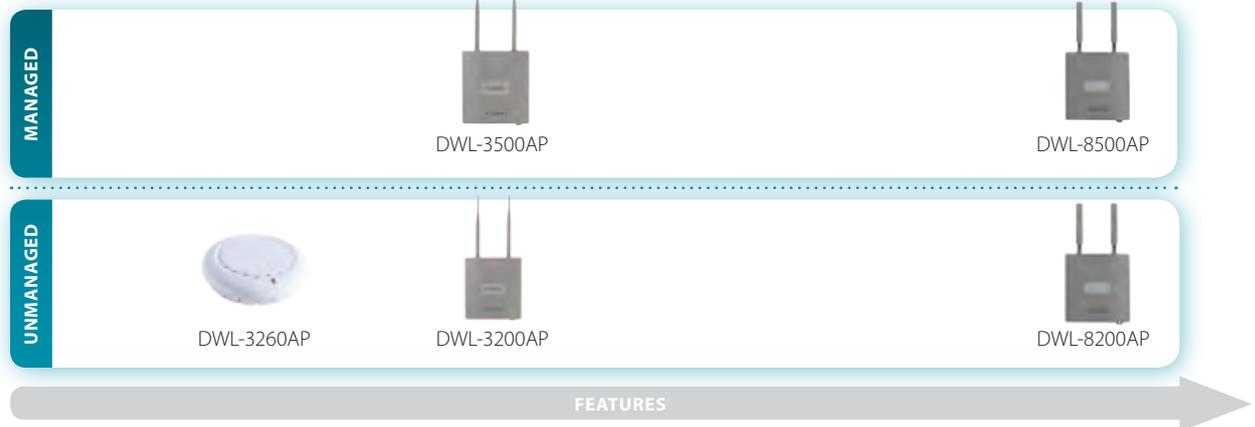
Wireless technology provides businesses with a flexible and cost-effective way to send and receive data. D-Link's range of Wireless N products provide stable connectivity which is robust enough to be deployed at the very core of your network. They give greatly enhanced reliability and coverage, and include advanced security features to keep you completely safe from intrusion. Products under this category include Standalone/Managed Access Points, Single Band and Dualband Access Points and Antennas.

# Range Overview

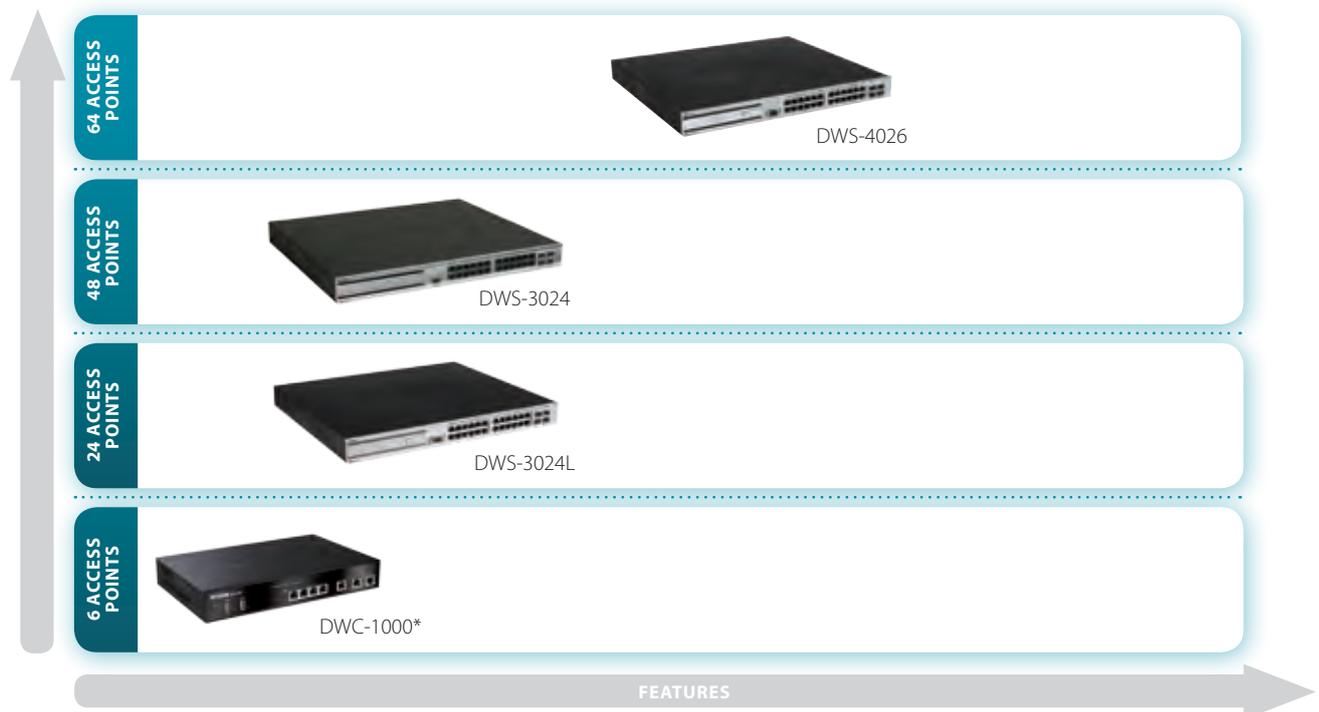
## Wireless N Access Points



## Wireless A/G Access Points



## Unified and Managed Solutions



\* Upgradable to manage 24 Access Points.

# Wireless N Access Points

## DAP and DWL Series



Model	DAP-2310	DAP-2360	DAP-2553	DAP-2590	DWL-3600AP	DWL-6600AP	DAP-2690	DWL-8600AP
<b>Wired Standards</b>								
IEEE 802.3 10BASE-T	•	•	•	•	•	•	•	•
IEEE 802.3u 100BASE-TX	•	•	•	•	•	•	•	•
IEEE 802.3ab 1000BASE-T	•	•	•	•	•	•	•	•
<b>Wireless Standards</b>								
IEEE 802.11a			•	•	•	•	•	•
IEEE 802.11g	•	•	•	•	•	•	•	•
IEEE 802.11n	•	•	•	•	•	•	•	•
Simultaneous Dualband						•	•	•
<b>Operation Modes</b>								
AP Client Mode	•	•	•	•			•	•
Bridge (WDS) Mode	•	•	•	•	•	•	•	•
Bridge with AP Mode	•	•	•	•	•	•	•	•
<b>Antenna Features</b>								
No. of Antennas	2	2	3	3	2	4	4	4
Gain	2 dBi	5 dBi	3 dBi for 2.4 Ghz and 5 dBi for 5 Ghz	3 dBi for 2.4 Ghz and 5 dBi for 5 Ghz	4.7 dBi		4 dBi for 2.4 Ghz and 6 dBi for 5 Ghz	6 dBi for 5 Ghz and 3 dBi for 2.4 Ghz
Detachable	•	•	•	•		Connectors for external antennae	•	•
Dipole Antenna	•	•	•	•			•	•
Directional Antenna								
Embedded Antenna					•	•		
<b>Authentication Features</b>								
64/128-Bit WEP	•	•	•	•	•	•	•	•
WPA/WPA2-PSK	•	•	•	•	•	•	•	•
WPA/WPA2-EAP	•	•	•	•	•	•	•	•
TKIP/AES	•	•	•	•	•	•	•	•
802.1X User Authentication	•	•	•	•	•	•	•	•
WPS (WiFi Protected Setup)								
<b>Security Features</b>								
MAC Address Filtering	•	•	•	•	•	•	•	•
SSID Broadcast Disable	•	•	•	•	•	•	•	•
Rogue AP Detection	•	•	•	•	•	•	•	•
WLAN Partition	•	•	•	•	•	•	•	•
802.1Q VLAN	•	•	•	•	•	•	•	•
Multiple SSIDs for Network Segmentation	•	•	•	•	•	•	•	•
<b>Grouping Features</b>								
Load Balancing	•	•	•	•	•	•	•	•
Link Integrity	•	•	•	•	•	•	•	•
User Limit	•	•	•	•	•	•	•	•
<b>QoS Features</b>								
WMM (WiFi Multimedia)	•	•	•	•	•	•	•	•
<b>Networking Features</b>								
DHCP Server	•	•	•	•			•	•
Auto-Channel Scan	•	•	•	•	•	•	•	•
Auto-Power Adjustment					•	•		•
<b>Management Features</b>								
SNMP	•	•	•	•	•	•	•	•
D-View	•	•	•	•	•	•	•	•
AP Manager Utility	APM II	APM II	APM II	APM II			APM II	APM II
Telnet	•	•	•	•	•	•	•	•
SSH	•	•	•	•	•	•	•	•
Management via Wireless Controller					•	•		•
<b>Installation Features</b>								
For Outdoor Usage								
802.3af Power over Ethernet		•	•	•	•	•	•	•
Zero-Configuration								

# Wireless A/G Access Points

## DWL Series



Model	DWL-3260AP	DWL-3200AP	DWL-3500AP	DWL-8200AP	DWL-8500AP
<b>Wired Standards</b>					
IEEE 802.3 10BASE-T	•	•	•	•	•
IEEE 802.3u 100BASE-TX	•	•	•	•	•
IEEE 802.3ab 1000BASE-T					
<b>Wireless Standards</b>					
IEEE 802.11a				•	•
IEEE 802.11g	•	•	•	•	•
IEEE 802.11n					
Simultaneous Dualband				•	•
<b>Operation Modes</b>					
AP Client Mode					
Bridge (WDS) Mode	•	•	•	•	•
Bridge with AP Mode	•	•	•	•	•
<b>Antenna Features</b>					
No. of Antennas	1	2	2	2	2
Gain	1 dBi	5 dBi	5 dBi	2.5 dBi for 2.4 Ghz and 5.5 dBi for 5 Ghz	2.5 dBi for 2.4 Ghz and 5.5 dBi for 5 Ghz
Detachable		•	•	•	•
Dipole Antenna		•	•	•	•
Directional Antenna	•				
Embedded Antenna	•				
<b>Authentication Features</b>					
64/128-Bit WEP	•	•	•	•	•
WPA/WPA2-PSK	•	•	•	•	•
WPA/WPA2-EAP	•	•	•	•	•
TKIP/AES	•	•	•	•	•
802.1X User Authentication	•	•	•	•	•
WPS (WiFi Protected Setup)					
<b>Security Features</b>					
MAC Address Filtering	•	•	•	•	•
SSID Broadcast Disable	•	•	•	•	•
Rogue AP Detection	•	•	•	•	•
WLAN Partition	•	•	•	•	•
802.1Q VLAN	•	•	•	•	•
Multiple SSIDs for Network Segmentation	•	•	•	•	•
<b>Grouping Features</b>					
Load Balancing	•	•	•	•	•
Link Integrity	•	•	•	•	•
User Limit	•	•	•	•	•
<b>QoS Features</b>					
WMM (WiFi Multimedia)	•	•	•	•	•
<b>Network Features</b>					
DHCP Server	•	•	•	•	•
Auto-Channel Scan	•	•	•	•	•
Auto-Power Adjustment			•		•
<b>Management Features</b>					
SNMP	•	•	•	•	•
D-View		•	•	•	•
AP Manager Utility	APM II	APM II	APM II	APM II	APM II
Telnet	•	•	•	•	•
SSH	•	•	•	•	•
Management via Wireless Controller			•		•
<b>Installation Features</b>					
For Outdoor Usage					
802.3af Power over Ethernet	•	•	•	•	•
Zero-Configuration					

# Unified Wired/Wireless Access System

## DWS-4000 Series



D-Link's next generation L2+ Unified Wired/Wireless Switching Solution consists of a Gigabit switch with an array of advanced features and 802.11u support. It is a full-featured and cost-effective mobility solution for mid to large enterprises and service providers. It enables network administrators to have control, security, redundancy and reliability needed to scale and manage the wireless networks easily and efficiently.

### Unified Switch

#### 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)
- Routing Information Protocol (RIP)
- Quality of Service (QoS)
- Traffic Shaping
- Bandwidth Control
- Access Control List
- 802.1X Port-Based Access Control
- Guest VLAN
- Broadcast Storm Control

### Unified Access Point

#### Managed Mode

- Centralised Management
- Centralised Firmware Dispatch
- Visualised AP Management Tool
- Auto-Power Adjustment
- Dynamic Auto-Channel Selection
- L2 Fast Roaming
- L3 Fast Roaming
- Captive Portal
- Rogue AP Mitigation
- Wireless Intrusion Detection and Prevention System (WIDS)

#### Standalone Mode

- Wireless Distribution System (WDS)
- AP Clustering

#### Managed and Standalone Mode

- WEP/WPA/WPA2 Security
- Rogue AP Detection
- Station Isolation
- MAC Address Filtering
- AP Load Balancing Setup
- Local Storage of Configuration
- Wi-Fi Multimedia
- SpectraLink Voice Priority (SVP)
- Unscheduled Automatic Power Save Delivery (U-APSD)

### Unified Switch DWS-4026

- 10/100/1000BASE-T x 20 (PoE)
- Combo 1000BASE-T/SFP x 4
- 10G Expansion Slot x 2
- Redundant Power Supply
- Up to 256 APs per Cluster/Peer Group

### Unified Access Point DWL-8600AP

- 10/100/1000BASE-T x 1 (PoE)
- IEEE 802.11a Wireless LAN
- IEEE 802.11g Wireless LAN
- IEEE 803.11n Wireless LAN
- 6dBi @ 5GHz and 4dBi @ 2.4GHz Dual Band Dipole Antenna x 4
- Detachable Antenna with RP-SMA Interface
- External Power Adapter

### Optional Accessories

#### Modules

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

#### 10-Gigabit Ethernet XFP Transceivers

DEM-421XT	10GBASE-SR, MMF, 300m
DEM-422XT	10GBASE-LR, SMF, 10km
DEM-423XT	10GBASE-ER, SMF, 40km

#### Gigabit Ethernet SFP Transceivers

DEM-310GT	1000BASE-LX, SMF/MMF, 10km/2km
DEM-311GT	1000BASE-SX, MMF, 550m
DEM-312GT2	1000BASE-SX, MMF, 2km
DEM-314GT	1000BASE-LH, SMF, 50km
DEM-315GT	1000BASE-ZX, SMF, 80km
DGS-712	1000BASE-T, Copper, 100m

#### Gigabit Ethernet WDM SFP Transceivers

DEM-330T/R	1000BASE-BX, SMF, 10km
DEM-331T/R	1000BASE-BX, SMF, 40km

## Unified Switch - DWS-4000 Series



Model		DWS-4026
IEEE LAN Standard		802.3; 802.3u; 802.3z; 802.3ab; 802.3ae; 802.3af
Port Interface	10/100/1000 BASE-T (RJ-45)	20 (PoE)
	Combo	4
	10 GE Slot	2
	XFP Module	DEM-410X
	CX4 Module	DEM-410CX
Stackability	Physical Stack	Via CX4/XFP Module; Duplex Chain/Ring Topology; Bi-Directional Redundant Stacking Topology; Up to 40 Gbps (Full Duplex); Up to 12 Units per Stack
General Features	Switch Capacity	88 Gbps
	Forwarding Rate	65.47 Mpps (Maximum)
	Forwarding Mode	Store and Forward
	Buffer Memory	750 KB
	MTBF	185,540 Hours
WLAN Management Capability		Female RS-232 DB-9 Console for Out-of-Band Configuration
Roaming		Max. 64 APs per Switch; Max. 256 APs per Cluster; Max. 2048 Wireless Users (1024 Tunneled, 2048 Non-Tunneled)
Access Control and Bandwidth Management		Fast Roaming (Wireless Adapter needs to support too); Intra-Switch / Inter-Switch Roaming; Intra-Subnet / Inter-Subnet Roaming; AP-AP-Tunnel
Managed Access Point		Max. 32 SSID per AP (16 SSID per RF Frequency Band); AP Load Balancing Based on the No. of Users or Utilisation per AP
AP Management		DWL-8600AP AP Auto-Discovery; Remote AP Reboot; AP Monitoring: List Managed AP, Authentication Failed AP, Rogue AP; Ad-Hoc Clients Monitoring; Client Monitoring: List Clients Associated with Each Managed AP; AP Authentication Supporting Local Database and External RADIUS Server; Centralised RF/Security Policy Management; Visualised AP Management Tool (Support up to 16 JPG Files); Unified AP Support (DWL-8600AP): Managed/Standalone Mode
WLAN Security		Wireless Intrusion Detection and Prevention System (WIDS); Rogue AP Mitigation; 64/128-Bit WEP Data Encryption; Rogue and Valid AP Classification Based on MAC Address; WPA Personal/Enterprise; WPA2 Personal/Enterprise; Wireless Station and AP Monitoring on RF Channel, MAC Address, SSID, Time; Captive Portal; Station Isolation; Encryption Type Support: WEP, WPA, Dynamic WEP, TKIP, AES-CCMP, EAP-FAST, EAP-TLS, EAP-TTLS, EAP-MD5, PEAP-GTC, PEAP-MS-CHAPv2, PEAP-TLS; MAC Authentication
L2 Features		MAC Address Table Size: 8 K Entries; IGMP Snooping: 1 K Multicast Groups; MLD Snooping; 802.1D STP, 802.1s Rapid STP, 802.1w Multiple STP; 802.3ad Link Aggregation: Max. 32 Groups, Max. 8 Ports per Group; Jumbo Frame: Max. 9 KBytes; 802.1ab Link Layer Discovery Protocol (LLDP); LLDP-MED; Port Mirroring: One-to-One, Many-to-One; Flow Control: 802.3x in Full Duplex, Back Pressure in Half Duplex, Head-of-Line Blocking Prevention
Virtual LAN (VLAN)		802.1Q Tagged VLAN; 802.1v Protocol VLAN; VLAN Groups: Max. 3,965 Entries; Subnet-Based VLAN; GARP VLAN Registration Protocol (GVRP); MAC-Based VLAN; Double VLAN; Voice VLAN
L3 Features		IPv4 Static Route; Routing Table Size: Max. 128 Static Routes; Floating Static Route; Proxy Address Resolution Protocol (ARP); Virtual Router Redundancy Protocol (VRRP); Routing Information Protocol (RIP) v1/v2
Quality of Service (QoS)		802.1p Priority Queues (Max. 8 Queues per Port); Auto-VoIP; Minimum Bandwidth Guarantee per Queue; Traffic Shaping per Port; Per-Flow Bandwidth Control; CoS Based on: Switch Port, VLAN, DSCP, TCP/UDP Port, TOS, Dest/Source MAC Address, Dest/Source IP Address
Access Control List (ACL)		ACL Based on: Switch Port, MAC Address, 802.1p Queues, VLAN, Ether Type, DSCP, IP Address, Protocol Type, TCP/UDP Port
LAN Security		RADIUS and TACACS+ Authentication for Management Access; Secure Shell (SSH) v1/v2; Secure Sockets Layer (SSL) v3; Transport Layer Security (TLS) v1; MAC Filtering; Denial of Service Protection; Dynamic ARP Inspection (DAI); Port Security: 20 MAC per Port, Port Violation Notification; 802.1X Port-Based Access Control and Guest VLAN; Broadcast Storm Control in Granularity of 1% of Link Speed; DHCP Snooping; Protected Port; DHCP Filtering
Management Methods		Web-Based GUI; Switch Clustering; RADIUS Accounting; Command Line Interface (CLI); Telnet Client; TFTP Client; Telnet Server: Max. 5 Sessions; sFlow; BootP/DHCP Client; DHCP Server; DHCP Relay; Dual Images; Port Description; Multiple Configuration Files; Dual Image Services; Simple Network Management Protocol (SNMP) v1/v2c/v3; Remote Monitoring (RMON) v1; Simple Network Time Protocol (SNTP); System Log
Physical and Environment	Dimension	19-inch; 1U Rack-Mount; 440 x 389 x 44 mm (W x D x H)
	Weight	6 Kg
	Power Input	Input: 100-240 VAC, 50/60Hz; Internal Universal Power Supply
	Max. Power Consumption	525 W (With All PoE Ports in Operation)
	PoE	Power Budget: 370A; Per Port: 15.4 W
	RPS	DPS-600
Certification	Temperature	0 to 40 °C (Operation); -10 to 70 °C (Storage)
	Humidity	10%~90% (Operation); 5%~90% (Storage) Non-Condensing
	EMI-EMC	FCC Class A; CE; VCCI; C-Tick; ICES-003; EN 60601 1-2
	Safety	UL/cUL; CB

# Unified Wired/Wireless Access System

## DWS-3000 Series



D-Link's Unified Wired/Wireless Switching solution offers centralised management that greatly simplifies wireless deployment and significantly enhances access security, wireless throughput and network convergence.

### Unified Switches

#### Wireless Management

- L2/L3 Fast Roaming
- Intra-Switch/Inter-Switch Roaming
- Centralised Security Policy/AP/Client Management and Monitoring
- Adaptable Wireless
- Automatic RF Channel Adjustment
- Automatic AP Transmit Output Power Adjustment
- AP Auto-Discovery and Firmware Dispatch
- AP Load Balancing
- AP Authentication

- Remote AP Reboot
- AP Self Healing
- Client Monitoring
- Wi-Fi Multimedia (WMM)
- SpectraLink Voice Priority (SVP)
- MAC Authentication
- WPA/WPA2 Personal/Enterprise
- Captive Portal
- Rogue AP Detection
- Station Isolation
- Visualisation AP Management Tool

#### Wired Management

- Internet Group Management Protocol (IGMP) Snooping
- Link Layer Discovery Protocol (LLDP)
- Double VLAN (Q-in-Q)
- Subnet-based VLAN
- IPv4 Static Route
- Virtual Router Redundancy Protocol (VRRP)

- Quality of Service (QoS)
- Traffic Shaping
- Access Control List
- 802.1X Port-based Access Control
- Guest VLAN
- Broadcast Storm Control

### Optional Accessories

#### Gigabit Ethernet SFP Transceivers

DEM-310GT	1000BASE-LX, SMF/MMF, 10km/2km
DEM-311GT	1000BASE-SX, MMF, 550m
DEM-312GT2	1000BASE-SX, MMF, 2km
DEM-314GT	1000BASE-LH, SMF, 50km
DEM-315GT	1000BASE-ZX, SMF, 80km
DGS-712	1000BASE-T, Copper, 100m

#### Gigabit Ethernet WDM SFP Transceivers

DEM-330T/R	1000BASE-BX, SMF, 10km
DEM-331T/R	1000BASE-BX, SMF, 40km

### Unified Access Points

#### Managed Mode

- Centralised Management
- Centralised Firmware Dispatch
- Auto-Power Adjustment
- Dynamic Auto-Channel Selection
- L2 Fast Roaming
- L3 Fast Roaming
- Captive Portal

#### Standalone Mode

- Local Storage of Configuration

#### Managed and Standalone Mode

- WEP/WPA/WPA2 Security
- Rogue AP Detection
- Station Isolation
- MAC Address Filtering
- AP Load Balancing Setup
- Wi-Fi Multimedia (WMM)
- SpectraLink Voice Priority

### Unified Switches DWS-3024

- 24 x Gigabit PoE Ports
- 4 x Copper/Fibre SFP Slots
- Complete Set of Layer 2+ Features
- Up to 48 APs per Switch
- Up to 192 APs per Peer Group

### DWS-3024L

- 24 x Gigabit PoE Ports
- 4 x Copper/Fibre SFP Slots
- Complete Set of Layer 2+ Features
- Up to 24 APs per Switch
- Up to 96 APs per Peer Group

### Unified Access Points DWL-3500AP

- 1 x Gigabit PoE Ports
- IEEE 802.11b/g Wireless LAN
- Up to 8 SSID
- 802.1x Authentication
- Station Isolation
- Mounting Bracket Included

### DWL-8500AP

- 1 x Gigabit PoE Ports
- IEEE 802.11a/b/g Wireless LAN
- Concurrent Wireless A/G at 2.4 and 5.0 GHz
- Up to 16 SSID
- 802.1x Authentication
- Station Isolation
- Mounting Bracket Included

### DWL-8600AP

- 10/100/1000BASE-T x 1 (PoE)
- IEEE 802.11a/b/g/n Wireless LAN
- Concurrent Wireless N at 2.4 and 5.0 GHz
- Up to 32 SSID
- 802.1x Authentication
- Station Isolation
- Mounting Bracket Included

## Unified Switches - DWS-3000 Series



Model	DWS-3024	DWL-3024L
IEEE LAN Standard	802.3; 802.3u; 802.3z; 802.3ab; 802.3ae; 802.3af	
Port Interface	10/100/1000 BASE-T (RJ-45) Combo 1000BASE-T/SFP	20 (PoE) 4
Switching Capacity	48 Gbps	
General Features	Maximum Forwarding Rate 35.71 Mpps	
Forwarding Mode	Store and Forward	
Packet Buffer	750 KB	
Memory	174,272 Hours	
MTBF	Female RS-232 DB-9 Console Port for Out-of-Band Configuration	
Console Port	DWL-3024L: Max. 24 APs, DWL-3024 (Directly/Indirectly Connected Through LAN Switch) Max. 2048 Wireless Users (1024 Tunneled, 2048 Non-Tunneled)	
WLAN Management Capability	Fast Roaming (Wireless Adapter needs to support too); Intra-Switch / Inter-Switch Roaming; Intra-Subnet / Inter-Subnet Roaming	
Roaming	Max. 16 SSID per AP (8 SSID per RF Frequency Band); AP Load Balancing Based on the No. of Users/Utilisation per AP DWL-3500AP; DWL-8500AP; DWL-8600AP	
Access Control and Bandwidth Management	AP Auto-Discovery; Remote AP Reboot; AP Monitoring: List Managed AP, Authentication Failed AP, Rogue AP; Auto AP RF Channel Adjustment; Client Monitoring: List Clients Associated with Each Managed AP; Ad-Hoc Clients Monitoring; AP Authentication with Local Database and External RADIUS Server; Centralised RF/Security Policy Management; Automatic AP Transmitted Output Power Adjustment	
Managed Access Point	WPA Personal/Enterprise; WPA2 Personal/Enterprise; 64/128-Bit WEP Data Encryption; MAC Authentication; Wireless Station and AP Monitoring on RF Channel, MAC Address, SSID, Time; Captive Portal; Station Isolation Rogue and Valid AP Classification Based on MAC Address; Encryption Type: WEP, WPA, Dynamic WEP, TKIP, AES-CCMP, EAP-FAST, EAP-TLS, EAP-TTLS, EAP-MD5, PEAP-GTC, PEAP-MS-CHAPv2, PEAP-TLS	
WLAN Security	MAC Address Table Size: 8K Entries; IGMP Snooping: 1K Multicast Groups; 802.1ab Link Layer Discovery Protocol (LLDP); 802.1D STP, 802.1w RSTP, 802.1s MSTP; 802.3ad Link Aggregation: Max. 32 Groups, Max. 8 Ports per Group; Jumbo Frame: Max. 9 Kbytes; Port Mirroring: One-to-One, Many-to-One	
L2 Features	802.1Q Tagged VLAN; VLAN Groups: Max. 3965; 802.1v Protocol VLAN; Subnet-Based VLAN; MAC-Based VLAN; Double VLAN; GARP VLAN Registration Protocol (GVRP)	
Virtual LAN (VLAN)	IPv4 Static Route; Routing Table Size: Max. 128 Static Routes; Floating Static Route; Proxy Address Resolution Protocol (ARP); Virtual Router Redundancy Protocol (VRRP);	
L3 Features	802.1p Priority Queues: Max. 8 Queues per Port; Min. Bandwidth Guarantee per Queue; Traffic Shaping; CoS Based on: Switch Port, VLAN, DSCP, TCP/UDP Port, TOS, Dest/Source MAC Address, Dest/Source IP Address	
Quality of Service (QoS)	ACL Based on: Switch Port, MAC Address, 802.1p Queues, VLAN, Ether Type, DSCP, IP Address, Protocol Type, TCP/UDP Port	
Access Control List (ACL)	RADIUS and TACACS+ Authentication for Management Access; Secure Shell (SSH) v1/v2; Secure Sockets Layer (SSL) v3; Transport Layer Security (TLS) v1; MAC Filtering; Denial of Service Protection; DHCP Filtering; Protected Port; 802.1X Port-Based Access Control and Guest VLAN; Port Security: 20 MAC per Port, Trap Violation Notification; Broadcast Storm Control in Granularity of 1% of Link Speed	
LAN Security	Web-based GUI; Command Line Interface (CLI); System Log; Telnet Server: Max. 5 Sessions; Telnet Client; TFTP Client; Dual Images; Multiple Configuration Files; BootP/DHCP Client; Simple Network Management Protocol (SNMP) v1/v2c/v3; Remote Monitoring (RMON): 4 Groups; DHCP Server; Simple Network Time Protocol (SNTP)	
Management Methods	Dimension 19-inch; 1U Rack-Mount; 440 x 389 x 44 mm (W x D x H)	
Physical and Environment	Weight	6 Kg
	Power Input	Input: 100-240VAC, 50/60Hz; Internal Universal Power Supply
	Max. Power Consumption	450 W (All PoE Ports in Operation)
	PoE	Power Budget: 370 A; Per Port: 15.4 W
	RPS	DPS-600
	Temperature	0 to 40 °C (Operation); -10 to 70 °C (Storage)
Humidity	10%~90% (Operation); 5%~90% (Storage); Non-Condensing	
Fan	440x40 mm DC Fans	
Certification	EMI-EMC	FCC Class A; CE; VCCI; C-Tick; ICES-003; EN 60601 1-2
	Safety	UL/cUL; CB

# Wireless Controller

## DWC-1000



The DWC-1000 Wireless Controller is a centralised wireless LAN manager developed specifically for campuses, branch offices, and businesses that are looking for an easy to use, scalable solution to manage and configure their wireless network.

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 cost-effective mobility solution for small to medium-scale environments. Its auto-managed AP discovery and single point management allow customers to acquire 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.

- Integrated appliance for centralised wireless network management
- Integrates seamlessly in any network infrastructure – no modifications required
- An ideal solution to move to Wireless N from legacy technologies
- Upgrade licenses – pay only for the functionality that you need
- Support for 6 Access Points; upgradeable to 24 Access Points
- Three Access Point models available, supporting every wireless standard
- Up to 4 Wireless Controllers in a cluster, to manage up to 96 Access Points centrally
- 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 straightforward configuration
- USB port for file and printer sharing
- Enhanced security with Captive Portal and RADIUS support

### Optional Accessories

#### Compatible D-Link Wireless Access Points:

DWL-8600AP (802.11n/g/b/a)  
 DWL-6600AP (802.11n/g/b/a)  
 DWL-3600AP (802.11n/g/b)

#### Upgrade licenses:

DWC-1000-VPN-LIC: D-Link Wireless Controller 6 AP Service Pack  
 DWC-1000-6AP-LIC: D-Link Wireless Controller VPN Security Service Pack

## Wireless Controller - DWC-1000



Model		DWC-1000
Interface	Ethernet	2 10/100/1000 Option (WAN) Ports <sup>3</sup>
	USB	4 10/100/1000 LAN Ports
	Console	2 USB 2.0 Ports
Capacity and Performance	Maximum Access Points per Unit (default/ upgrade)	RJ-45
	Maximum Access Points per Cluster (default/ upgrade)	6/ 24 <sup>1</sup>
	Concurrent Captive Portal Authentication Users (Wired/ Wireless)	24/ 96 <sup>1</sup>
	Dedicated IPsec VPN Tunnels <sup>2</sup>	124/ 400
	Dedicated PPTP/ L2TP VPN Tunnels <sup>2</sup>	70
	Dedicated SSL VPN Tunnels <sup>2</sup>	25
		20
Access Point Management	Compatible Managed APs	DWL-8600AP DWL-6600AP DWL-3600AP
	AP Discovery & Control	Layer-2 Layer-3
	AP Monitoring	Managed AP Rogue AP Authentication Fail AP Standalone AP
	Client Monitoring	Authenticated Client Rogue Client Authentication Fail Client Ad-hoc Client
	Centralised RF/Security Policy Management	Supported
Roaming	Fast Roaming	Supported
	Intra-controller/Inter-controller Roaming	Supported
	Intra-subnet/Inter-subnet Roaming	Supported
		Supported
Security	Wireless Security	WEP Dynamic WEP WPA Personal/ Enterprise WPA2 Personal/ Enterprise
	Wireless Intrusion Detection & Prevention System (WIDS)	Rogue and Valid AP Classification Rogue AP Mitigation
	LAN Security	802.1x Port-Based Access Control and Guest VLAN
	Authentication	Captive Portal MAC Authentication
VLAN	VLAN Group	Up to 255 Entries
	802.1q VLAN Tagging	Supported
	Subnet-Based VLAN	Supported
	Port-Based VLAN	Supported
Firewall System <sup>2</sup>	Policy	Each Feature Supports 100 Rules Supports up to 600 Firewall Rules
	Dynamic Route	RIPv1, RIPv2
	Dynamic DNS	Supported
	NAT, PAT	Supported
Networking <sup>2</sup>	Web Content Filtering	Static URL Keywords
	Route Failover	Supported
Virtual Private Network (VPN) <sup>2</sup>	Outbound Load Balancing	Supported
	Encryption Methods	DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL
	IPsec NAT Traversal	Supported
	Dead Peer Detection	Supported
	IP Encapsulating Security Payload (ESP)	Supported
	IP Authentication Header (AH)	Supported
	VPN Tunnel Keep Alive	Supported
Hub and Spoke	Supported	
SSL Virtual Private Network (SSL VPN) <sup>2</sup>	SSL Encryption Methods	DES, 3DES, AES
	SSL Message Integrity	MD5, SHA1
	Web-Based User Interface	HTTP
System Management	Command Line Interface	Supported
	SNMP	v1, v2c, v3
Physical & Environment	Power Supply	Internal Power Supply: DC 12V/2.5A
	Max. Power Consumption	19.3 W
	Dimension	180 x 280 x 44 mm (7.09 x 11.02 x 1.73 inches)
	Operation Temperature	0 to 40 °C (32 to 104 °F)
	Storage Temperature	-20 to 70 °C (-4 to 158 °F)
	Operation Humidity	5% to 95%, Non-Condensing
	EMI Safety	FCC Class B, CE Class B, VCCI, C-tick, IC cUL, LVD (EN60950-1)

<sup>1</sup>The number of managed APs can be increased through purchase of license upgrades. Only available in groups of 6 licenses per upgrade.

<sup>2</sup>Features enabled through purchase of the VPN/Router/Firewall license upgrade.

<sup>3</sup>The first option port is enabled by default. The second option port is enabled through purchase of the VPN/Router/Firewall license upgrade.

# Antennas - Single Band (2.4 GHz)

## ANT Series



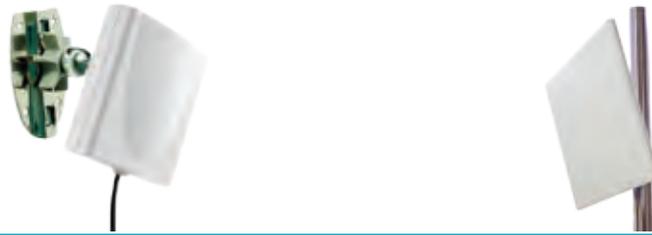
Monoband Antennae (2.4GHz)	ANT24-0800	ANT24-0801	ANT24-1200	ANT24-1201
<b>Electrical</b>				
Connector Type	N-Female	N-Female	SMA-Female	N-Female
Gain	8.0 dBi	8.5 dBi	12 dBi	12 dBi
Horizontal/Vertical Angle	360°/15°	65°/65°	80°/23°	50°/50°
Front to Back Ratio	15 dBi	15 dBi	15 dBi	15 dBi
Polarisation	Linear, Vertical	Linear, Vertical	Linear, Vertical	Linear, Vertical
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms
<b>Physical and Environmental</b>				
Survival Wind Speed	180 Km/h	216 Km/h	Indoor Only	216 Km/h
Operating Temperature	-40°C to +80°C	-40°C to +80°C	Indoor Only	-40°C to +80°C
Weight	0.34 Kg	0.3 Kg	0.19 Kg	0.3 Kg
Dimensions (mm)	Ø19 x 520	120 x 120 x 43	330 x 93 x 20.7	280 x 87 x 48
Material	Fibreglass	ABS, UV Resistant	ABS, UV Resistant	ABS, UV Resistant
Mounting Type	Wall and Pole	Wall and Pole	Wall	Wall and Pole



Monoband Antennae (2.4 GHz)	ANT24-1400	ANT24-1800	ANT24-2100
<b>Electrical</b>			
Connector Type	N-Female	N-Female	N-Female
Gain	14 dBi	18 dBi	21 dBi
Horizontal/Vertical angle	30°/30°	15°/15°	10°/12°
Front to Back Ratio	15 dBi	26 dBi	N/A
Polarisation	Linear, Vertical	Linear, Vertical	Linear, Vertical
Impedance	50 Ohms	50 Ohms	50 Ohms
<b>Physical and Environmental</b>			
Survival Wind Speed	216 Km/h	216 Km/h	216 Km/h
Operating Temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +70°C
Weight	0.825 Kg	1.6 Kg	3.7 Kg
Dimensions (mm)	240 x 240 x 69.5	360 x 360 x 16	1,560 x 600 x 480
Material	ABS, UV Resistant	ABS, UV Resistant	ABS, UV Resistant
Mounting Type	Wall and Pole	Wall and Pole	Wall and Pole

# Antennas - Dual Band (2.4/5 GHz)/Accessories

## ANT Series



Dual Band Antennae (2.4 and 5GHz)	ANT70-1000	ANT70-1400N
<b>Electrical</b>		
Connector Type	N-Female	N-Female
Gain	8.5 dBi @ 2.4 GHz 10.5 dBi @ 5.0 GHz	11 dBi @ 2.4 GHz 12-14 dBi @ 5.1 GHz
Horizontal/Vertical Angle	58°/55° @ 2.4 GHz 45°/45° @ 5.0 GHz	40-44°/38-41° @ 2.4 GHz 19-22°/25-31° @ 5.1 GHz
Front to Back Ratio	15 dBi	20 dBi
Polarisation	Linear, Vertical	Linear, Vertical
Impedance	50 Ohms	50 Ohms
<b>Physical and Environmental</b>		
Survival Wind Speed	216 Km/h	216 Km/h
Operating Temperature	-40°C to +80°C	-40°C to +80°C
Weight	0.15 Kg	1.72 Kg
Dimensions (mm)	114 x 124 x 40	360 x 360 x 40
Material	ABS, UV Resistant	ABS, UV Resistant
Mounting Type	Wall	Wall and Pole



Accessories	ANT24-CB03N	ANT24-CB06N	ANT24-CB09N	ECB-ANT240500	ECB-ANT240800	ECB-ANT241200
Cable Type	HDF-400	HDF-400	HDF-400	ULA-198	ULA-198	ULA-198
Length (m)	3	6	9	3	0.5	3
Cable Loss (dB)	1	2	3	2.5	0.4	2.5
Connection Type	N-Male N-Female	N-Male N-Female	N-Male N-Female	N-Male SMA-Female	N-Male SMA-Female	SMA-Male SMA-Female
Use With	Outdoor Antennae	Outdoor Antennae	Outdoor Antennae	Outdoor Antennae	Outdoor Antennae	ANT24-1200

# Security



Protecting a network against attacks and unauthorised access is key to the survival of any business. D-Link's security solutions offer end-to-end defence to ensure all areas of the network are secured. Products under this category include Unified Services Routers.

# Unified Services Routers



Customised for small businesses, D-Link's Unified Services Routers are all-in-one gateway devices providing outstanding performance and rich functionalities, including IEEE 802.11n (ratified version), 3G WAN redundancy, IPv6 and comprehensive VPN features (SSL/IPSec/PPTP/L2TP).

- Static/Dynamic IP WAN Type
- Point-to-Point over Ethernet (PPPoE)
- SSL/IPSec/PPTP/L2TP VPN
- VPN Hub and Spoke
- IPSec/PPTP/L2TP VPN Pass-Through
- 3G WAN Redundancy (DSR-1000N only)
- Network Address Translation (NAT)
- Transparent Mode
- WAN Traffic Failover
- Outbound Load Balancing<sup>1</sup>
- 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

## DSR-250N



- 10/100/1000BASE-T x 1 (WAN)
- 10/100/1000BASE-T x 8 (LAN)
- IEEE 802.11n Wireless LAN (2.4 GHz)
- USB 2.0 Port x1
- 2dBi Dipole Antennas x2 (Detachable)
- Internal Power Supply
- D-Link Green Technology

## DSR-500N



- 10/100/1000BASE-T x 2 (WAN)
- 10/100/1000BASE-T x 4 (LAN)
- IEEE 802.11n Wireless LAN (2.4 GHz)
- USB 2.0 Port x 1
- 2dBi Dipole Antenna x 3 (Detachable)
- Internal Power Supply
- D-Link Green Technology

## DSR-1000N



- 10/100/1000BASE-T x 2 (WAN)
- 10/100/1000BASE-T x 4 (LAN)
- IEEE 802.11n Wireless LAN (2.4 GHz + 5 GHz)
- USB 2.0 Port x 2
- 2dBi Dipole Antenna x 3 (Detachable)
- 3G Support
- Internal Power Supply
- D-Link Green Technology

Model	DSR-250N	DSR-500N	DSR-1000N
Interfaces	1 x Gigabit Ports (WAN) 8 x Gigabit Ports (LAN)	2 x Gigabit Ports (WAN) 4 x Gigabit Ports (LAN)	2 x Gigabit Ports (WAN) 4 x Gigabit Ports (LAN)
Firewall Throughput	45 Mbps	70 Mbps	130 Mbps
VPN Throughput	35 Mbps	35 Mbps	70 Mbps
Concurrent Sessions	20,000	30,000	60,000
New Sessions (Per Second)	200	300	600
Firewall Policies	200	300	600
Internet Connection Type	Static/Dynamic IP, L2TP/PPTP/PPPoE/Multiple PPPoE		
Firewall System	NAT, PAT Web Content Filtering (URL, Keywords) Intrusion Prevention System (IPS)		
Networking	Static Routing	Static Routing, RIP v1/v2, OSPF <sup>1</sup> Inter-VLAN Routing Dynamic DNS DHCP Server/Client/Relay VLAN Support (Port-Based) IGMP Proxy Route Failover 3G Redundancy <sup>2</sup> Outbound Load Balancing IPv6 Support	
Wireless	802.11b/g/n Single Frequency (2.4 GHz)		802.11a/b/g/n Concurrent Frequency (2.4 + 5 GHz)
VPN	25 Tunnels	35 Tunnels 70 Tunnels DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL IPSec/PPTP/L2TP Server IPSec NAT Traversal Dead Peer Detection IP Encapsulation Security Payload (ESP) IP Authentication Header (AH) VPN Tunnel Keep-Alive Hub-and-Spoke	
SSL VPN	5 SSL VPN Tunnels	10 SSL VPN Tunnels	20 SSL VPN Tunnels
Bandwidth Management	DES, 3DES, AES MDS, SHA1 Max. Bandwidth Control Priority Bandwidth Control (Port-Based QoS, 3 Classes)		
System Management	HTTP, HTTPS, CLI SNMP v1, v2c, v3 Internal Power Supply		
Physical and Environmental	12.6 W Max 140 x 203 x 35 mm	16.8 W Max	19.3 W Max 180 x 280 x 44 mm
	Operating Temperature 0 to 40 °C Operating Humidity 5% to 95% RH Non-Condensing		
	250,000 Hours MTBF	260,000 Hours MTBF	

<sup>1</sup> DSR-500N, DSR-1000N only <sup>2</sup> Available in the future

# IP Surveillance



The security of your business is at risk if there is no monitoring system in place to protect your business assets. Choosing to implement IP Surveillance offers the advantage of leveraging your existing network infrastructure to maximise investment. IP Surveillance provides all of the superior functionality of an effective analogue CCTV offering, but adds several key benefits, such as increased accessibility, real-time alerts, unlimited storage and secure image distribution, and superior cost benefits. Products under this category include IP Cameras, Network Video Recorders, Camera Accessories and Video Encoders.

# Range Overview

## Fixed Cameras (Indoor - Wired/Wireless)

WIRELESS						
	DCS-930L	DCS-932L	DCS-1130	DCS-2130	DCS-2230	DCS-3430
WIRED						
	DCS-2210	DCS-3411	DCS-3415	DCS-3112	DCS-3710	DCS-3716
FEATURES →						

## Fixed Cameras (Outdoor - Wired)

	
DCS-7110	DCS-7410
FEATURES →	

## Dome Cameras (Fixed)

DAY AND NIGHT			
	DCS-6111	DCS-6113	DCS-6511
DAY ONLY			
	DCS-6112		
FEATURES →			

## PTZ Cameras

OUTDOORS				
	DCS-6815	DCS-6818		
INDOORS				
	DCS-5220	DCS-5605	DCS-5635	DCS-6616
FEATURES →				

# Fixed IP Cameras (Wireless)



D-Link offers a wide range of fixed IP cameras to meet the surveillance requirements for indoor usage and for day to night monitoring. The fixed IP cameras are reliable, economical and of high-quality. The cameras can be connected to a network to provide a fixed viewing direction once they are mounted.

## DCS-930L

### Wireless N Home IP Camera



mydlink™



#### Main Features

- MJPEG Compression
- Remote Monitoring
- Free iPhone/Android Apps
- Samba Client for Network NAS

#### Physical Features

- 1/5" VGA CMOS Sensor
- Built-in Microphone
- Internal Antenna

## DCS-932L

### Wireless N Day and Night Home IP Camera



my™



#### Main Features

- MJPEG Compression
- Remote Monitoring
- Free iPhone/Android Apps
- Samba Client for Network NAS

#### Physical Features

- 1/5" VGA CMOS Sensor
- Built-in Microphone
- Internal Antenna
- IR Illuminators

## DCS-1130

### Wireless N IP Camera



#### Main Features

- Simultaneous MJPEG/MPEG-4 Streams
- 3GPP Mobile Surveillance
- Samba Client for Network NAS

#### Physical Features

- 1/4" VGA CMOS Sensor
- Built-in Microphone
- 2 x Detachable Antenna

## DCS-2130

### HD Cube IP Camera



#### Main Features

- Simultaneous H.264, MPEG-4, MJPEG Streams
- HD Resolution
- Privacy Masks
- ePTZ Image Manipulation
- 2-way Audio Support
- Samba Client for Network NAS

#### Physical Features

- 1/4" Progressive CMOS Sensor
- DI x 1, DO x 1
- MicroSD Card Slot
- Internal Antenna

## DCS-2230

### Full HD Cube IP Camera



#### Main Features

- Simultaneous H.264, MPEG-4, MJPEG Streams
- Full HD Resolution
- Privacy Masks
- ePTZ Image Manipulation
- 2-way Audio Support
- Samba Client for Network NAS

#### Physical Features

- 2 Megapixel Progressive CMOS Sensors
- MicroSD Card Slot
- DI x 1, DO x 1
- IR Illuminator and IR-Cut Filter
- Built-in PIR Sensors
- Internal Antenna

## DCS-3430

### Wireless N D&N Camera



#### Main Features

- MJPEG/MPEG4/H.264 Multi-Profile Compression
- 4 Concurrent Video Profiles
- Day and Night Monitoring
- 3GPP Mobile Surveillance
- 2-Way Audio
- Samba Client for Network NAS

#### Physical Features

- CMOS Sensor, CS Mount Lens
- IR Cut Removable (ICR) Filter
- SD Card Slot
- Digital Input/Digital Output
- BNC Output, Audio Line In/Out

#### Optional Accessories

- DWL-P50 (PoE Splitter)

## Fixed IP Cameras (Indoor - Wireless)



Model	DCS-930L	DCS-932L	DCS-1130	DCS-2130	DCS-2230	DCS-3430
<b>Image Sensor</b>						
Type	1/5" Progressive Scan CMOS	1/5" Progressive Scan CMOS	1/4" Progressive Scan CMOS	1/4" Progressive Scan CMOS	1/2.7" Progressive Scan CMOS	1/4" Progressive Scan CMOS
Megapixel				•	•	
Wide Dynamic Range (WDR)						
Maximum Video Resolution	640 x 480	640 x 480	640 x 480	1280 x 800	1920 x 1080	640 x 480
<b>Lens</b>						
Type	Fixed	Fixed	Fixed	Fixed	Fixed	CS Mount
Focal Length	5.01 mm	5.01 mm	5.01 mm	3.45 mm	4.37 mm	6 mm
F-Number	F2.8	F2.8	F2.8	F2.0	F2.0	F1.8
Minimum Illumination (Lux)	1 Lux	1 Lux	1 Lux	1.0 Lux	0 Lux (with IR Illuminator)	0.5 Lux (Typical) 0 Lux (10m with IR Lens)
Angle of View (Horizontal/Vertical)	45.3°/34.5°	45.3°/34.5°		57.8°/ 37.8°	67.4°/40.8°	41°/ 31°
Motorised Pan/Tilt						
Optical Zoom						
Privacy Masks				•	•	
<b>Day and Night</b>						
Dual-Band Filter						
ICR Filter		•			•	•
IR Built-in		5m			5m	
<b>Audio</b>						
2-Way Audio				•	•	•
Built-in Microphone	•	•	•	•	•	•
External Microphone Input						•
Built-in Speaker					•	
External Speaker Output				•		•
<b>Connectivity</b>						
Wired LAN			10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)
Wireless LAN	802.11n, 802.11g	802.11n, 802.11g	802.11n, 802.11g	802.11n, 802.11g	802.11n, 802.11g	802.11n, 802.11g
802.3af PoE						
Digital Input/Output				DI x 1, DO x 1	DI x 1, DO x 1	DI x 2, DO x 1
RS-485 Interface						•
Monitor Output						BNC Output
External Card Slot				Micro SD	Micro SD	SD Card
<b>Software Features</b>						
Video Format	MJPEG	MJPEG	MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	MJPEG, MPEG-4, H264
Multi-Stream			•	•	•	
Multi-Profile			•			•
Digital Zoom	4X	4X	16X	10X	10X	16X
HTTP Secure (HTTPS)					•	
Java Support	•	•	•			•
Motion Detection	•	•	•	•	•	•
E-Mail Notification	•	•	•	•	•	•
Schedule Recording to Hard Drive	•	•	•	•	•	•
Recording to NAS	•	•	•	•	•	•
Audio Recording	•	•	•	•	•	•
Video Output to 3GPP			•	•	•	•
UPnP Installation	•	•	•	•	•	•
DDNS Support	•	•	•	•	•	•
Enable/Disable LED Indicators						•
D-ViewCam Compatible	•	•	•	•	•	•
<b>Physical and Environmental</b>						
Dimensions	27.2 (D) x 60 (W) x 96 (H) mm	27.2 (D) x 60 (W) x 96 (H) mm	80 (W) x 120 (H) x 31 (D) mm	95 (H) x 58 (W) x 30.7 (D) mm	95 (H) x 58 (W) x 30.7 (D) mm	177 (L) x 78 (W) x 60 (H) mm
Weight	0.769 Kg	0.769 Kg	0.280 Kg	0.069 Kg	0.70 Kg	0.578 Kg
Max. Power Consumption	2 W	2 W	6.3 W	2.5 W	2.5 W	6.9 W
Operating Temperature	0 °C to 40 °C	0 °C to 40 °C	0 to 40 °C	0 to 40 °C	0 to 40°C	0 to 40 °C
Operating Humidity	20 to 80% RH Non-Condensing	20 to 80% RH Non-Condensing	20 to 80% RH Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing

# Fixed IP Cameras (Wired)



D-Link offers a wide range of fixed IP cameras to meet the surveillance requirements the indoor usage and from day to night monitoring. The fixed IP cameras are reliable, economical and of high-quality. The cameras can be connected to a network to provide a fixed viewing direction once they are mounted.

## DCS-2210

### Full HD Cube IP Camera



#### Main Features

- Simultaneous H.264, MPEG-4, MJPEG Streams
- Full HD Resolution
- Privacy Masks
- ePTZ Image Manipulation
- 2-way Audio Support
- Samba Client for Network NAS

#### Physical Features

- 2 Megapixel Progressive CMOS Sensors
- MicroSD Card Slot
- DI x 1, DO x 1
- IR Illuminator and IR-Cut Filter
- Built-in PIR Sensors

## DCS-3411

### PoE D&N Camera



#### Main Features

- H.264/MPEG4/MJPEG
- 4 Concurrent Video Profiles
- Day and Night Monitoring
- 3GPP Mobile Surveillance
- 2-Way Audio
- PoE Support
- Samba Client for Network NAS

#### Physical Features

- CMOS Sensor, CS Mount Lens
- IR Cut Removable (ICR) Filter
- SD Card Slot
- Digital Input/Digital Output
- BNC Output, Audio Line In/Out

#### Optional Accessories

- DCS-60 (Outdoor Enclosure)

## DCS-3415

### 18x PoE Camera



#### Main Features

- MPEG4/MJPEG Dual-Stream
- Day and Night Monitoring
- 3GPP Mobile Surveillance
- 2-Way Audio
- Samba Client for NAS

#### Physical Features

- Sony Progressive Scan CCD Sensor
- IR Cut Removable (ICR) Filter
- CF Card Slot
- Digital Input/Digital Output
- Audio Line In/Out

#### Optional Accessories

- DCS-60 (Outdoor Enclosure)

## DCS-3112

### HD Day/Night IP Camera



#### Main Features

- Real-time H.264, MPEG-4, and Motion JPEG Compression
- RS-485 Interface
- Day and Night Monitoring
- 3GPP Mobile Surveillance
- PoE Support
- Simultaneous Multi-Stream Support

#### Physical Features

- Sony Exmor 1/4" 1.3 Megapixel CMOS Progressive Sensor
- 2 Alarm Inputs / 1 Alarm Output
- DC Iris Varifocal
- 2-way Audio Support
- Built-in Removable IR-Cut Filter for Day/Night Surveillance
- SD Card Slot for Local Storage

## DCS-3710

### HDTV WDR Camera



#### Main Features

- MPEG4/MJPEG Multi-Profile
- 3GPP Mobile Surveillance
- Low-Light Recording
- Samba Client for NAS
- HTTPS, Privacy Mask
- HDTV Resolution
- Wide Dynamic Range (WDR)

#### Physical Features

- 1.3 Megapixel WDR Progressive Scan CMOS Sensor
- Vari-Focal DC-Iris Lens
- IR Cut Removable (ICR) Filter
- SD Card Slot
- Digital Input/Digital Output
- BNC Output, Audio Line In/Out

#### Optional Accessories

- DCS-60 (Outdoor Enclosure)

## DCS-3716

### Full HD Day and Night WDR IP Camera



#### Main Features

- H.264/MPEG4/MJPEG Multi-Profile
- 3GPP Mobile Surveillance
- RS-485 Interface
- Full HD Resolution
- 3GPP Support
- Samba Client for Network NAS
- Wide Dynamic Range (WDR)

#### Physical Features

- 3 Megapixel Progressive CMOS Sensors
- IR Cut Removable (ICR) Filter
- Built-in Removable IR Cut Filter
- DI x 2, DO x 1
- Analogue BNC Output
- Vari-Focal DC-Iris Lens
- 2-Way Audio Support

## Fixed IP Cameras (Indoor - Wired)



Model	DCS-2210	DCS-3411	DCS-3415	DCS-3112	DCS-3710	DCS-3716
<b>Image Sensor</b>						
Type	1/2.7" Progressive Scan CMOS	1/4" Progressive Scan CMOS	1/4" Sony Progressive Scan CMOS	Sony Exmor 1/4" Progressive CMOS	1/4" Progressive Scan CMOS	Sony Exmor 1/2.8" Progressive Scan CMOS
Megapixel	•			•	•	•
Wide Dynamic Range (WDR)					•	•
Maximum Video Resolution	1920 x 1080	640 x 480	640 x 480	1280 x 1024	1280 x 960	2048 x 1536
<b>Lens</b>						
Type	Fixed	CS Mount	Fixed	CS Mount, Varifocal	Varifocal, DC-Iris	Varifocal, DC-Iris
Focal Length	4.37 mm	6 mm	4.1 ~ 73.8 mm	3.5 mm ~ 8 mm	2.8 ~ 12 mm	3.1 ~ 8.0 mm
F-Number	F2.0	F1.8	F1.4 ~ F3.0	F1.4	F1.3	F1.2
Minimum Illumination (Lux)	0 Lux (with IR Illuminator)	0.5 Lux (Typical) 0 Lux (10m with IR Lens)	1.6 Lux (Typical) 0.38 Lux (with IRC On)	0.4 Lux (Color); 0.04 Lux (B/W)	0.1 Lux (Colour) 0.02 Lux (B/W)	1 Lux 0.5 Lux (Colour); 0.05 Lux (B/W)
Angle of View (Horizontal/Vertical)	67.4°/40.8°	41°/ 31°	48° ~ 2.8° / -	35.4° ~ 77.6° / 26.6° ~ 57.6°	102.2° ~ 23.7° / -	38.7° ~ 95.9° / 29.1° ~ 71.0°
Motorised Pan/Tilt						
Optical Zoom			18X			
Privacy Masks	•			•	•	•
<b>Day and Night</b>						
Dual-Band Filter						
ICR Filter	•	•	•	•	•	•
IR Built-in	5m					
<b>Audio</b>						
2-Way Audio	•	•	•	•	•	•
Built-in Microphone	•	•	•			
External Microphone Input		•	•	•	•	•
Built-in Speaker	•					
External Speaker Output		•	•	•	•	•
<b>Connectivity</b>						
Wired LAN	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)
Wireless LAN						
802.3af PoE	•	•	•	•	•	•
Digital Input/Output	DI x 1, DO x 1	DI x 2, DO x 1	DI x 1, DO x 1	DI x 2, DO x 1	DI x 2, DO x 1	DI x 2, DO x 1
RS-485 Interface		•	•	•	•	•
Monitor Output		BNC Output		BNC Output	BNC Output	BNC Output
External Card Slot	Micro SD	SD Card	CF Card	SD Card	SD Card	SD Card
<b>Software Features</b>						
Video Format	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	MJPEG, MPEG-4	H.264, MPEG-4, MJPEG	H.264, MJPEG, MPEG-4	H.264, MPEG-4, MJPEG
Multi-Stream	•	•	•	•	•	•
Multi-Profile		•		•	•	•
Digital Zoom	10X	16X	4X	10X	10X	10X
HTTP Secure (HTTPS)	•			•	•	•
Java Support		•				
Motion Detection	•	•	•	•	•	•
E-Mail Notification	•	•	•	•	•	•
Schedule Recording to Hard Drive	•	•	•	•	•	•
Recording to NAS	•	•	•	•	•	•
Audio Recording	•	•	•	•	•	•
Video Output to 3GPP	•	•	•	•	•	•
UPnP Installation	•	•	•	•	•	•
DDNS Support	•	•	•	•	•	•
Enable/Disable LED Indicators		•	•	•	•	•
D-ViewCam Compatible	•	•	•	•	•	•
<b>Physical and Environmental</b>						
Dimensions	95 (H) x 58 (W) x 30.7 (D) mm	177 (L) x 78 (W) x 60 (H) mm	143.5 (L) x 80 (W) x 92.4 (H) mm	180.4 (L) x 80.0 (W) x 52.9 mm (H)	140 (L) x 80 (W) x 53 mm (H)	140 (L) x 80 (W) x 53 mm (H)
Weight	0.069 Kg	0.5778 Kg	1.012 Kg	0.560 Kg	0.576 Kg	0.580 Kg
Max. Power Consumption	2 W	5.484 W	5.4 W	3.6 W	2 W	4 W
Operating Temperature	0 to 40 °C	0 to 40 °C	0 to 40 °C	0 to 40 °C	0 to 40 °C	0 to 40 °C
Operating Humidity	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing
<b>Accessories</b>						
Optional Outdoor Enclosure		DCS-60	DCS-60	DCS-60	DCS-60	DCS-60
Mounting Options						

# Fixed IP Cameras (Outdoor)



## DCS-7110

### HD Outdoor Day and Night IP Camera



#### Main Features

- H.264/MPEG4/MJPEG Multi-Profile
- HDTV Resolution
- 3GPP Mobile Surveillance
- Privacy Mask
- ONVIF Compliant
- IPv6 Support

#### Physical Features

- Colour CMOS Sensor
- ICR Filter
- Built-in 15m IR LED
- Digital Input/Digital Output
- RS-485 Interface
- IP66 Certified Casing for Outdoor Use

## DCS-7410

### Day and Night Outdoor PoE Camera



#### Main Features

- MPEG4/MJPEG Multi-Profile
- Day and Night Monitoring
- 3GPP Mobile Surveillance
- 2-Way Audio
- Samba Client for NAS

#### Physical Features

- Colour CCD Sensor
- Dual-Band Filter
- Built-in 30m IR LED
- Digital Input/Digital Output
- BNC Video Output
- Audio Line In/Out
- IP66 Certified Casing for Outdoor Use

## Fixed IP Cameras (Outdoor - Wired)



Model	DCS-7110	DCS-7410
<b>Image Sensor</b>		
Type	1/4" Progressive CMOS	1/3" Colour CCD
Megapixel	•	
Wide Dynamic Range (WDR)		
Maximum Video Resolution (Pixels)	1280 x 800	NTSC: 720 x 480 PAL: 720 x 576
<b>Lens</b>		
Type	Fixed	Fixed
Focal Length	4 mm	12 mm
F-Number	F1.5	F1.4
Minimum Illumination (Lux)	1 Lux	0.7 Lux
Angle of View (Horizontal/Vertical)	65.4°	22° / 17°
Motorised Pan/Tilt		
Optical Zoom		
<b>Day and Night</b>		
Dual-Band Filter		•
ICR Filter	•	
IR Built-in	15m	30m
<b>Audio</b>		
2-Way Audio		•
Built-in Microphone		
External Microphone Input		•
Built-in Speaker		
External Speaker Output		•
<b>Connectivity</b>		
Wired LAN	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)
Wireless LAN		
802.3af PoE	•	•
Digital Input/Output	DI x 1, DO x 1	DI x 2, DO x 1
RS-485 Interface	•	•
Monitor Output		BNC Output
External Card Slot		
<b>Software Features</b>		
Video Format	H.264, MJPEG, MPEG-4	MJPEG, MPEG-4
Multi-Stream	•	
Multi-Profile	•	•
Digital Zoom	4X	16X
HTTP Secure (HTTPS)	•	
Java Support		•
Motion Detection	•	•
E-Mail Notification	•	•
Schedule Recording to Hard Drive	•	•
Recording to NAS	•	•
Audio Recording		•
Video Output to 3GPP	•	•
UPnP Installation	•	•
DDNS Support	•	•
Enable/Disable LED Indicators		
D-ViewCam Compatible	•	•
<b>Physical and Environmental</b>		
Dimensions	197 x 73 x 71 mm	240 x 8.79 x 84.1 mm
Weight	0.783 Kg	1.63 Kg
Max. Power Consumption	6 W	11.72 W
Operating Temperature	-20 to 50°C	-20 to 45°C
Operating Humidity	90% Non-Condensing	20% to 80% Non-Condensing
<b>Accessories</b>		
Optional Outdoor Enclosure	Not needed (IP66)	Not needed (IP66)
Mounting Options		

# Fixed Dome IP Cameras



D-Link's high-performance fixed dome IP cameras provide the necessary professional look and surveillance for business environments, and are especially popular with CCTV. They are equipped with progressive CMOS technology which delivers exceptional picture quality.

D-Link's D-ViewCam software, which is included with the cameras, provides the ability to view up to 32 camera sites concurrently with a single computer screen at a central location.

## DCS-6111

### Fixed Dome Camera



#### Main Features

- MPEG4/MJPEG Dual-Stream
- Day and Night Monitoring
- 3GPP Mobile Surveillance
- 2-Way Audio
- Samba Client for NAS
- HTTPS, IPv6, Privacy Mask
- Link Layer Topology Discovery
- Wide Dynamic Range (WDR)

#### Physical Features

- WDR VGA CMOS Sensor
- Vari-Focal, Board Mount Lens
- Built-in 20m IR LED
- IR-Cut Removable (ICR) Filter
- Digital Input/Digital Output
- Audio Line In/Out
- 3-Axis Mechanical Design

## DCS-6112

### Full HD Fixed Dome IP Camera



#### Main Features

- H.264, MPEG-4, MJPEG
- Full HD Resolution
- 2 Way Audio
- Privacy Masks
- 3GPP Support
- Samba Client for Network NAS

#### Physical Features

- 2 Megapixel Progressive CMOS Sensors
- Digital Input/Digital Output
- MicroSD Card Slot

## DCS-6113

### Full HD Fixed Dome IP Camera



#### Main Features

- H.264, MPEG-4, MJPEG
- Full HD Resolution
- 2 Way Audio
- Privacy Masks
- 3GPP Support
- Samba Client for Network NAS

#### Physical Features

- 2 Megapixel Progressive CMOS Sensors
- Digital Input/Digital Output
- IR Illuminators
- Built-in Removable IR-Cut Filter
- MicroSD Card Slot

## DCS-6511

### HD Fixed Dome Day and Night Network Camera



#### Main Features

- H.264/MJPEG/MPEG4 Multi-Profile
- HDTV Resolution
- 3GPP Mobile Surveillance
- Privacy Mask
- Wide Dynamic Range (WDR)

#### Physical Features

- Colour CMOS Sensor
- Motorised Varifocal Autofocus Lens
- IR Cut Removable (ICR) Filter
- Built-in 20m IR LED
- Digital Input/Digital Output
- Audio Line In/Out
- Vandal-Proof Dome
- IP66 Certified Casing for Outdoor Use

## Fixed Dome IP Cameras



Model	DCS-6111	DCS-6112	DCS-6113	DCS-6511
<b>Image Sensor</b>				
Type	1/4" Progressive Scan CMOS	1/2.7" 2 Megapixel Progressive Scan CMOS	1/2.7" 2 Megapixel Progressive Scan CMOS	1/4" Progressive Scan CMOS
Megapixel		•	•	•
Wide Dynamic Range (WDR)				•
Maximum Video Resolution (Pixels)	640 x 480	1920 x 1080	1920 x 1080	1280 x 1024
<b>Lens</b>				
Type	Varifocal, Board Mount	Fixed	Fixed	Motorised Varifocal
Focal Length	3.3 ~12 mm	4.0 mm	4.0 mm	3.3 ~12 mm
F-Number	F1.4 ~ F2.9	F1.5	F1.5	F1.4
Minimum Illumination (Lux)	1.5 Lux	0.12 Lux	0 Lux (with IR Illuminator)	0.2 Lux (Colour) 0 Lux (B/W)
Angle of View (Horizontal/Vertical)	63° ~ 18° / 47° ~ 13°	77.4°	77.4°	89° ~ 23° / 63° ~ 17°
Motorised Pan/Tilt				
Optical Zoom				
Privacy Masks		•	•	
<b>Day and Night</b>				
Dual-Band Filter				
ICR Filter	•		•	•
IR Built-in	20m		10m	20m
<b>Audio</b>				
2-Way Audio	•	•	•	•
Built-in Microphone		•	•	
External Microphone Input	•	•	•	•
Built-in Speaker				
External Speaker Output	•			•
<b>Connectivity</b>				
Wired LAN	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)
Wireless LAN				
802.3af PoE	•	•	•	•
Digital Input/Output	DI x 1, DO x 1	DI x 1, DO x 1	DI x 1, DO x 1	DI x 2, DO x 1
RS-485 Interface				
Monitor Output		BNC Output	BNC Output	BNC Output
External Card Slot		Micro SD	Micro SD	SD Card
<b>Software Features</b>				
Video Format	MJPEG, MPEG-4	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	MJPEG, MPEG-4, H.264
Multi-Stream	•	•	•	•
Multi-Profile				•
Digital Zoom	4X	16X	16X	10X
HTTP Secure (HTTPS)	•	•	•	•
Java Support				
Motion Detection	•	•	•	•
E-Mail Notification	•	•	•	•
Schedule Recording to Hard Drive	•	•	•	•
Recording to NAS	•	•	•	•
Audio Recording	•	•	•	•
Video Output to 3GPP	•	•	•	•
UPnP Installation	•	•	•	•
DDNS Support	•	•	•	•
Enable/Disable LED Indicators	•			•
D-ViewCam Compatible	•	•	•	•
<b>Physical and Environmental</b>				
Dimensions	194 x 180 x 107 mm	130 x 97.80 mm (Ø x H)	130 x 97.80 mm (Ø x H)	127 x 151.79 x 191.8 mm
Weight	0.65 Kg	0.466 Kg	0.472 Kg	1.030 Kg
Max. Power Consumption	11 W	4.4 W	5.3 W	
Operating Temperature	0 to 40°C	0 to 40°C	0 to 40°C	-40 to 50°C
Operating Humidity	20% to 80% Non-Condensing	90% Non-Condensing	90% Non-Condensing	20% to 80% Non-Condensing
<b>Accessories</b>				
Optional Outdoor Enclosure				Not Needed (IP66)
Mounting Options				DCS-34-1 (Included) DCS-34-2 DCS-34-3

# Pan, Tilt, Zoom (PTZ) IP Cameras

These high speed dome cameras feature endless (360°) pan for wide range surveillance. Equipped with outdoor enclosure and ultra low lux CCD sensor and ICR support, these cameras are very useful for many applications. They have many preset points and an auto patrol cruise that can work as a multiple camera inside or outside a building.

## DCS-5220

### Wireless G PTZ IP Camera



#### Main Features

- MPEG-4, MJPEG
- 4x Digital Zoom
- 3GPP Support
- Samba Client for Network NAS

#### Physical Features

- 1/4" CMOS Sensor
- 2x External Antenna

## DCS-5605

### H.264 PTZ Camera



#### Main Features

- MJPEG/MPEG4/H.264 Multi-Profile Compression
- 4 Concurrent Video Profiles
- Day and Night Monitoring
- 3GPP/RTSP Mobile Surveillance
- 2-Way Audio, Privacy Mask
- Samba Client for NAS

#### Physical Features

- Samsung De-Interlace CCD Sensor
- IR Cut Removable (ICR) Filter
- MicroSD Card Slot
- Digital Input/Digital Output
- RS-485 Interface
- AV Video Out Output
- Audio Line In/Out

## DCS-5635

### Wireless N PTZ Camera



#### Main Features

- MJPEG/MPEG4/H.264 Multi-Profile Compression
- 4 Concurrent Video Profiles
- Day and Night Monitoring
- 3GPP/RTSP Mobile Surveillance
- 2-Way Audio, Privacy Mask
- Samba Client for NAS

#### Physical Features

- Samsung De-Interlace CCD Sensor
- IR Cut Removable (ICR) Filter
- MicroSD Card Slot
- Digital Input/Digital Output
- RS-485 Interface
- AV Video Out Output
- Audio Line In/Out

## DCS-6616

### 12x Speed Dome IP Camera



#### Main Features

- H.264, MPEG-4, MJPEG
- Day and Night Monitoring
- Wide Dynamic Range
- Privacy Mask Feature

#### Physical Features

- Sony Super HAD-II 1/4" CCD
- IR-Cut Removable (ICR) Filter
- Digital Input x 8
- Digital Output x 1
- 2-Way Audio Support

## DCS-6815

### 18x Speed Dome Camera



#### Main Features

- MPEG4/MJPEG
- Day and Night Monitoring
- Wide Dynamic Range (WDR)
- 256 Preset Points
- Auto Cruise PTZ
- Privacy Mask

#### Physical Features

- Sony Exview CCD Sensor
- Auto Iris Lens
- IR-Cut Removable (ICR) Filter
- Dual-Band Filter
- Digital Input x 8
- Digital Output x 1
- BNC Video Output
- Built-in Fan and Heater
- IP66 Certified Casing for Outdoor

## DCS-6818

### 36x Speed Dome Camera



#### Main Features

- MPEG4/MJPEG
- Day and Night Monitoring
- Wide Dynamic Range (WDR)
- 256 Preset Points
- Auto Cruise PTZ
- Privacy Mask

#### Physical Features

- Sony Exview CCD Sensor
- Auto Iris Lens
- IR-Cut Removable (ICR) Filter
- Dual-Band Filter
- Digital Input x 8
- Digital Output x 1
- BNC Video Output
- Built-in Fan and Heater
- IP66 Certified Casing for Outdoor

## Pan, Tilt, Zoom (PTZ) IP Cameras



Model	DCS-5220	DCS-5605	DCS-5635	DCS-6616	DCS-6815	DCS-6818
<b>Image Sensor</b>						
Type	1/4" CMOS	1/3" Samsung De-Interlace CCD	1/3" Samsung De-Interlace CCD	Sony Super HAD-II 1/4" CCD	1/4" Sony Exview CCD	1/4" Sony Exview CCD
Megapixel						
Wide Dynamic Range (WDR)				•	•	•
Maximum Video Resolution	640 x 480	NTSC: 720 x 480 PAL: 720 x 576	NTSC: 720 x 480 PAL: 720 x 576	720 x 576	NTSC: 720 x 480 PAL: 720 x 576	NTSC: 720 x 480 PAL: 720 x 576
<b>Lens</b>						
Type	Fixed	Fixed	Fixed	Varifocal	Auto Iris	Auto Iris
Focal Length	4 mm	3.8 ~38 mm	3.8 ~38 mm	3.8 to 45.6 mm	3.4 ~61.2 mm	3.4 ~122.4 mm
F-Number	F2.0	F1.8	F1.8	F1.6 ~ F2.7	F1.4 ~ F3.0	F1.4 ~ F3.0
Minimum Illumination (Lux)	1 Lux	0.7 Lux (Colour) 0.02 Lux (B/W)	0.7 Lux (Colour) 0.02 Lux (B/W)	0.1 Lux (Colour) 0.01 Lux (B/W)	0.01 Lux (Colour) 0.01 Lux (B/W)	0.01 Lux (Colour) 0.01 Lux (B/W)
Angle of View (Horizontal/ Vertical)	48.45°	51°~ 6°/ 40°~ 4°	51°~ 6°/ 40°~ 4°	4.49° to 52.8°/ 3.40° to 39.7°	60.8°~ 3.6°/ -	60.8°~ 1.8°/ -
Motorised Pan/Tilt	•	•	•	•	•	•
Optical Zoom		10X	10X	12X	18X	36X
Privacy Masks				•		
Day and Night						
Dual-Band Filter						
ICR Filter		•	•	•	•	•
IR Built-in						
<b>Audio</b>						
2-Way Audio		•	•	•		
Built-in Microphone	•	•	•			
External Microphone Input		•	•	•		
Built-in Speaker						
External Speaker Output		•	•	•		
<b>Connectivity</b>						
Wired LAN	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)	10/100BASE-TX (RJ-45)
Wireless LAN	802.11g		802.11n, 802.1g			
802.3af PoE						
Digital Input/Output		DI x 1, DO x 1	DI x 1, DO x 1	DI x 8, DO x 1	DI x 8, DO x 1	DI x 8, DO x 1
RS-485 Interface		•	•			
Monitor Output		AV Output	AV Output	BNC Output	BNC Output	BNC Output
External Card Slot		Micro SD Card	Micro SD Card			
<b>Software Features</b>						
Video Format	MJPEG, MPEG-4	MJPEG, MPEG-4, H.264	MJPEG, MPEG-4, H.264	H.264, MPEG-4, MJPEG	MJPEG, MPEG-4	MJPEG, MPEG-4
Multi-Stream	•			•		
Multi-Profile		•	•	•		
Digital Zoom	4X	16X	16X	12X	12X	12X
HTTP Secure (HTTPS)						
Java Support		•	•	•		
Motion Detection	•	•	•	•	•	•
E-Mail Notification	•	•	•	•	•	•
Schedule Recording to Hard Drive	•	•	•	•		
Recording to NAS	•	•	•	•		
Audio Recording	•	•	•	•		
Video Output to 3GPP	•	•	•	•		
UPnP Installation	•	•	•	•		
DDNS Support	•	•	•	•	•	•
Enable/Disable LED Indicators		•	•			
D-ViewCam Compatible	•	•	•	•	•	•
<b>Physical and Environmental</b>						
Dimensions	105 (H) x 105 (W) x 112 (D) mm	1403 x 1361 x 140.1 mm	1403 x 1361 x 140.1 mm	131 (Ø) x 205 (H) mm	190 x 302.5 mm	190 x 302.5 mm
Weight	0.650 Kg	0.810 Kg	0.855 Kg	1.2 Kg	2.6 Kg	2.6 Kg
Max. Power Consumption	4.8 W			14 W	65 W	65 W
Operating Temperature	0 to 40 °C	0 to 40 °C	0 to 40 °C	0 to 40 °C	-40 to 50 °C	-40 to 50 °C
Operating Humidity	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing	20% to 80% Non-Condensing
<b>Accessories</b>						
Optional Outdoor Enclosure					Not Needed (IP66)	Not Needed (IP66)
Mounting Options					DCS-32-1, DCS-32-2, DCS-32-3, DCS-32-4	DCS-32-1, DCS-32-2, DCS- 32-3, DCS-32-4
Other					DCS-80-6 (Outdoor PSU)	DCS-80-6 (Outdoor PSU)

# Video Encoders

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

These video encoders are 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. 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-210-1

### Video Encoder



#### Main Features

- MPEG4/MJPEG Dual-Codec
- 2-Way Audio
- Motion Detection

#### Physical Features

- 1-Channel BNC Input
- SD Card Slot
- Digital Input/Digital Output
- Alarm Input x 2
- Alarm Output x 1
- RS-485 Interface
- Audio Line In/Out

## DVS-310-1

### H.264 PoE Video Encoder



#### Main Features

- H.264/MPEG4/MJPEG Dual Codec
- 2-Way Audio
- Motion Detection

#### Physical Features

- 1-Channel BNC Input
- SD Card Slot
- PoE Support
- Digital Input x 2
- Digital Output x 1
- RS-485 Interface
- Audio Line In/Out

## What is a Video Encoder?

Video encoders, also known as video servers, enable an existing analogue CCTV video surveillance system to be integrated with a network video system. Video encoders play an important role in installations where many analogue cameras are to be maintained.

A video encoder makes it possible for an analogue CCTV system to migrate to a network video system. It provides the benefits of network video without having to discard existing analogue equipment such as analogue CCTV cameras and coaxial cabling.

## 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, computer monitors and PCs can be used instead of DVRs or VCRs and 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?

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.

## Video Encoders



Model		DVS-210-1	DVS-310-1
Network Specifications	Connection	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 Specifications	Video Format	MJPEG, MPEG-4	MJPEG, MPEG-4, H.264
	Bit Rate	64 Kbps to 4 Mbps	
	Supported Resolutions	PAL: D1 (720x576), CIF (352x288), QCIF (176x144) NTSC: D1 (720x480), CIF (352x240), QCIF (176x120)	
	Video Input	1CH, NTSC/PAL, BNC Connector, 1.0Vp-p with 75 Ω Loading	
	Video Recording	Instant Local Video Recording	
Audio	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	
Pan/Tilt/Zoom	PTZ Connection	RS-485	
	PTZ Protocols	PelcoP, PelcoD, Merit Lilin, Visca, DynaColour, Transparent	
	Baud Rate	1200, 1800, 2400, 4800, 9600, 19200	
Digital I/O	Number of Inputs	2	
	Number of Outputs	1	
Alarm Handling	Loss Detection	Video and Network Loss Detection	
	Motion Detection	Hardware Based, Multiple Detection Areas	
	Event Handler	Alerts by FTP and Email	
Storage	Local Storage	SD Card	
Video Management Software	D-ViewCam	Compatible	
Physical and Environment	Dimension (L x W x H)	90 x 78 x 36 mm	
	Weight	232 g	
	Operating Temperature	0 to 40°C	
	Operating Humidity	20% to 80% Non-Condensing	

# Network Video Recorders

D-Link's standalone wired Network Video Recorders (NVR) support 8-channel network cameras with MJPEG, MPEG4 or H.264 recording with 2 high-speed 3.5-inch SATA hard disks for long term recording. The NVR can record video from IP cameras located in local or remote sites into a dedicated HDD storage without turning on a computer. The NVRs support real-time monitoring and playback anytime, anywhere, via a web browser.

## DNR-322L

### 2-Bay mydlink™ NVR



**mydlink™**



#### Main Features

- Accessible from the Internet with mydlink™
- 9-Channel IP Camera Recording
- 1 Channel Playback
- RAID 0/1 and JBOD
- HD Recording (720p)
- Configurable Recording Schedules
- Supports D-Link IP Cameras

#### Physical Features

- USB Port for UPS Status Update
- 2 Bays for SATA HDD
- Device Lock Hole

## DNR-326

### 2-Bay Professional Network Video Recorder



#### Main Features

- Two Bays for SATA Hard Disks (Not Included) with Optional RAID1 Protection
- Support for all D-Link Cameras
- Support for Multiple Brand Cameras (Axis, Panasonic, Sony, Mobotix, Cisco, etc)
- Monitor and Record up to 9 Cameras Simultaneously Using MJPEG, MPEG4 or H.264
- SmartSearch Technology to Simplify Event Investigation
- Full HD Recording (1080p)
- Digital Watermark to Prevent Tampering on Recorded Files

#### Physical Features

- 2 Bays for SATA HDD
- USB Port for UPS Status Update

## DNS-726-4

### 2-Bay Pro NVR



#### Main Features

- 9-Channel IP Camera Recording
- Real-time Monitoring and Playback
- Scheduled, Motion Detection, Manual and Event Recording
- E-map
- Schedule Auto Backup
- Smart Search for Advance Playback
- Support D-Link, ACTi, Arecont, Axis, Cisco, IQinVision, Mobotix, Panasonic, Sony Network Cameras

#### Physical Features

- USB Port for UPS Status Update
- 2 Bays for SATA HDD
- Key Lock for Device and Front Panel

## Network Video Recorders



Model	DNR-322L	DNR-326	DNS-726-4	
Hardware Specification	IEEE Standard	802.3/u/z	802.3; 802.3u; 802.3ab	
	Network Port	One 10/100/1000 Mbps Auto-MDIX Fast Ethernet LAN Port	One 10/100/1000BASE-T Gigabit Ethernet Port	One 10/100/1000BASE-T Gigabit Ethernet Port
	Universal Serial Bus (USB)	USB Port for UPS Status Update	One USB port for UPS Status Update (Power Failure Update)	One USB 2.0 Port for UPS Status Update (Power Failure Update)
	Memory	Flash ROM: 128 MB	Flash ROM: 32 MB; RAM: 128 MB DDR	Flash ROM: 32 MB; RAM: 128 MB DDR
	Hard Disk Drive (HDD)	Embedded Two SATA II 3.5" HDD Interface, Support 2TB HDD RAID 0/1 and JBOD Supported	2-bay; SATA I, II; Control & Manage via PC; Reformat Disk; Redundant Array of Inexpensive Disks (RAID) 0, 1, Just a Bunch of Drives (JBOD)	2-Bay; SATA I, II; Control and Manage Via PC; Reformat Disk; Redundant Array of Inexpensive Disks (RAID) 0, 1, Just a Bunch of Drives (JBOD)
	Reset to Factory Default	Reset to Factory Default. Reset Configuration to Default	Hardware Reset Button; Reset Button in Firmware GUI	Hardware Reset Button; Reset Button in Firmware GUI
	Device Security	Device Lock Hole	Front Panel Lock; Device Lock Hole	Front Panel Lock; Device Lock Hole
Firmware Specification	Operating System	Linux	Linux	
	Supported Network Cameras	Supports all D-Link IP Cameras (Only) and Auto Discovery Function Include 1.3 Megapixel and HD Resolution	D-Link, Axis, Panasonic, Sony, Mobotix, Arecont Vision, IQinVision, Cisco, Acti	D-Link, ACTi, Arecont, Axis, Cisco, IQinVision, Mobotix, Panasonic, Sony Network Cameras
	Recording Performance	Up to 270 Frames at HD (1280x720) (around 810 frames at D1)	Max. capacity (NVR mode only): - H.264 1080P (Bitrate): 90 Mbps - H.264 720P (Bitrate): 90 Mbps - MJPEG 1080P (frame rate): 90 fps - MJPEG 720P (frame rate): 192 fps Max. capacity (NVR+File Server mode): - H.264 1080P (Bitrate): 68 Mbps - H.264 720P (Bitrate): 68 Mbps - MJPEG 1080P (frame rate): 70 fps - MJPEG 720P (frame rate): 150 fps	NTSC: Up to 120fps; PAL: Up to 200fps at CIF
	Camera Search	Universal Plug-and-Play (UPnP)	Universal Plug-and-Play (UPnP)	Universal Plug-and-Play (UPnP)
	Audio and Video Recording	Synchronised Audio and Video Recording	Synchronised Audio & Video Recording	Synchronised Audio and Video Recording
	Compression Format	H.264, MPEG-4, M-JPEG (for supported cameras)	H.264, MPEG-4, M-JPEG (for supported cameras)	H.264; MPEG-4; MJPEG (for supported cameras)
	Video Setting	Resolution, Quality, Frame Rate, Enable Audio, Go to Camera Interface	Resolution, Quality, Frame Rate, Enable Audio, Go to Camera Interface	Resolution; Quality; Frame Rate; Enable Audio; Go to Camera Interface
	Recording Type	Record by Schedule, Manual Record, Event Record (Motion Detection)	Recording by Schedule, Manual and Event (DI Trigger, Motion Detection from Camera)	Record by Schedule, Manual Record, Event Record (Motion Detection)
	Remote Live View	Via Internet Explorer Remote Live Viewer Maximum 9 Simultaneous Channels	Supported via IE Remote Live Viewer Maximum 9 Simultaneous Channels	Via Internet Explorer Remote Live Viewer Maximum 9 Simultaneous Channels
	Remote Live View Control	Live View, Preset/Go, Patrol, Focus, PTZ Functions, Snapshot, Full Screen, Auto Scan, Digital Zoom (Zoom in and Zoom out)	Live View, Preset/Go, Patrol, Focus, PTZ Functions, Snapshot, Full Screen, Digital Zoom	Live View; Preset/Go; Patrol; Focus; PTZ Function; Snapshot; Full Screen; Digital Zoom; Remote I/O
Physical and Environment	Remote Playback	Internet Explorer and NVR Client Playback System with Timeline GUI, Search by Event, Area, Camera, Date and Time Support One-Channel Playback Digital Zoom to Specific Area	Supported via IE and NVR Client Playback system with Timeline GUI, Search by Event, Area, Cameras, Date, and Time IE & NVR Client Support Four Channel Simultaneous Playback	Internet Explorer and NVR Client; Playback System with Timeline GUI, Search by Event, Area, Camera, Date and Time Support Four-Channel Playback Simultaneous Playback and Smart Search by General Motion, Missing Object
	Remote Playback Control	Playback with Normal, Fast Forward/Backward and Step Forward/Backward	Playback with Normal, Fast Forward/Rewind and Step Forward/Rewind Smart Search Intelligent Detection Function: General Motion, Missing Object, Foreign Object, Camera Occlusion, Lose Focus	Playback with Normal, Fast Forward/Rewind and Step Forward/Rewind; Smart Search Intelligent Function: General Motion, Missing Object, Foreign Object, Camera Occlusion, Lose Focus
	Overwrite Recording	Automatic Recycling when Disk Storage is Full	Automatic Recycling when Disk Storage is Full	Automatic Recycling when Disk Storage is Full
	File Export	Export Videos to "AVI" or "ASF" file (ASF with Timestamp) Export Images to "BMP" or "JPG" File	Export Videos to "AVI" or "ASF" file (ASF with Timestamp) Export Images to "BMP" or "JPG" File	Export Videos to "AVI" or "ASF" File (ASF with Timestamp) Export Images to "BMP" or "JPG" File
	User Account	Additional Accounts can be Created to Allow User Access to the System and Specify Authorisation for Camera Channels, PTZ, etc	Additional Accounts can be Created to Allow User Access to the System and Specify Authorisation for Camera Channels, PTZ, etc	Additional Accounts can be Created to Allow User Access to the System and Specify Authorisation for Camera Channels, PTZ, etc
	Dynamic Domain Name System (DDNS)	D-Link DDNS Server	D-Link DDNS Server Support	D-Link DDNS Server
	System Time	Set System Time (D-Link NTP, Input Time, Sync with Computer, Daylight Savings Time)	Set System Time (D-Link NTP, Input Time, Sync with Computer, Daylight Saving Time)	Set System Time (D-Link NTP, Input Time, Sync with Computer, Daylight Saving Time)
Physical and Environment	Remote Backup	Remote Software can Backup Raw Data to Redundant Storage	Remote Software can Backup Raw Data to Redundant Storage. Backup Recorded Data to Remote FTP Site by Daily Schedule	Remote Software can Backup Raw Data to Redundant Storage
	System Status	Camera Status, System Status	Camera Status; System Status	Camera Status; System Status
	Network Service Protocol	IPV4, ARP, TCP, UDP, ICMP, DHCP Server, DHCP Client, NTP Client (D-Link), DNS Client, DDNS Client (D-Link), SMTP Client, HTTP Server, PPPoE, UPnP, IP Filtering, Samba Server	IPV4, ARP, TCP, UDP, ICMP, DHCP Server, DHCP Client, NTP Client (D-Link), DNS Client, DDNS Client (D-Link), SMTP Client, HTTP Server, PPPoE, UPnP, IP Filtering, Samba Server	IPV4, ARP, TCP, UDP, ICMP, DHCP Server, DHCP Client, NTP Client (D-Link), DNS Client, DDNS Client (D-Link), SMTP Client, HTTP Server, PPPoE, UPnP, IP Filtering, Samba Server
	User Interface	HTTP Web Browser, Internet Explorer v7 or later, NVR Search Utility, Multiple Language GUI	HTTP Web Browser, Internet Explorer v7 or later, NVR Search Utility, Multiple Language GUI	HTTP Web Browser, Internet Explorer v7 or later, NVR Search Utility, Multiple Language GUI
	Dimension (W x D x H)	115 x 178 x 146 mm	115 x 146.4 x 178.5 mm	198 x 104 x 132 mm
	Weight	0.8751 Kg	0.875 Kg	1.23 Kg
	Power Input	External Power Adapter	External Power Adapter	External Power Adapter
	Max. Power Consumption	25.20 W	25.20 W	23.59 W; Standby State: 7.26 W
	Operating Temperature	0° to 55° C	0 to 55 °C	0 to 55°C
	Storage Temperature	-20° to 70° C	-20 to 70 °C	-20 to 70°C
Operating Humidity	5% to 90% (Non-Condensing)	5% to 90% (Non-Condensing)	5% to 90% (Non-Condensing)	

# Video Management Software (VMS)

D-ViewCam Standard (DCS-100) Video Management Software (VMS), bundled with D-Link's IP cameras, provides video recording, live view and playback management for IP cameras and video servers.

## D-ViewCam Standard



D-ViewCam Standard network camera surveillance software (DCS-100) is bundled with D-Link IP cameras and is 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. Supporting up to 32 network cameras, D-ViewCam 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. This software provides users with a wide array of features including video recording, playback and video live view.

The easy-to-use D-ViewCam software allows users to manage up to 32 IP cameras on one screen and display real-time operating information from the camera on the main screen. The e-map mode 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. Up to 64 live clients can monitor videos via browsers.

D-ViewCam offers users scheduled, motion and manual recording options to meet individual needs. Recorded files can be searched by video type and selected within the user interface where the files can be played, edited and converted into AVI or ASF files.

Event action configuration provides users with optimal surveillance and security by detecting motion occurring on the cameras or through added devices such as smoke detectors, magnetic door sensors, emergency buttons, card readers and other I/O devices. By attaching these devices to a compatible D-Link IP camera, a warning will be sent to D-ViewCam to notify users during the occurrence of an event. Users can combine event actions, such as triggering I/O devices and send email notifications when an event occurs.

The backup function of D-ViewCam saves everything from the playback panel including log information. Users can load backup files to any PC with a Windows operating system. D-ViewCam also provides a DB-Tool utility to help users reconstruct, repair or relocate the database in a local drive, external drive or network drive. Backup videos and logs can also be burned onto CDs.



Video Display

Video Playback

Video Playback

## Camera Accessories - Enclosures, Brackets, PSU



Model		DCS-60
Enclosures	Input Power	90~264 V AC
	Output Power	12V DC, 3 A
	Heater	On at 18°C / Off at 28°C
	Blower	On at 35°C / Off at 25°C
	Dimensions	450 x 135 x 140 mm
	Material	Aluminium
	Operating Temperature	-20 to 45°C
	Operating Humidity	0% to 95% RH Non-Condensing
Compatible With		DCS-3110 DCS-3411 DCS-3415 DCS-3710 DCS-3112 DCS-3716



Model		DCS-32-1	DCS-32-2	DCS-32-3	DCS-32-4	DCS-34-2	DCS-34-3
Mounting Options	Type	Straight Tube (Long)	Straight Tube (Short)	Standard Pendant	Mini Pendant	Pendant Mount	Bent Mount
	Compatible With	DCS-6815 DCS-6818	DCS-6815 DCS-6818	DCS-6815 DCS-6818	DCS-6815 DCS-6818	DCS-6511	DCS-6511



Model		DCS-80-6
Power Supplies	Input Power	220~230 V AC
	Output	24 V DC
	Protection	IP66
	Compatible With	DCS-6815 DCS-6818

# 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 under this category include Network Attached Storage (NAS) devices and Storage Area Network Arrays (IP SAN) solutions.

# Range Overview

## Network Attached Storage (NAS)

5-BAY		DNS-1200-05
4-BAY	  	DNS-345      DNS-1100-04      DNS-1550-04
2-BAY		DNS-325

FEATURES 

## Storage Area Network Arrays (IP SAN)

15-BAY	 	DSN-3400-10 DSN-3200-10
12-BAY	   	DSN-6110      DSN-6120 DSN-6410      DSN-6420
5-BAY	 	DSN-1100-10 DNS-1200-05
4-BAY	 	DNS-1100-04      DNS-1550-04

FEATURES 

# Storage Area Network Arrays (IP SAN)

D-Link's Storage Area Network Arrays (IP SAN) are designed to provide a reliable network data storage solution for entry-level and SMB segments. These storage arrays can be easily implemented in Virtualised Server environments, nearline storage or as a supplement to the primary backup and recovery devices.

**DSN-1100-10**  
5-Bay iSCSI SAN Array



1Gbps LAN x4  
vmware READY

Windows Server 2008

**Main Features**

- RAID 0,1,1+0,5
- SATA-II
- Online Capacity Expansion and RAID Level Migration

**Physical Features**

- Tower

**DSN-3200-10**  
15-Bay iSCSI SAN Array



1Gbps LAN x8  
vmware READY

Windows Server 2008

**Main Features**

- RAID 0,1,1+0,5
- SATA-II
- Online Capacity Expansion and RAID Level Migration

**Physical Features**

- 15 Drive Trays
- 3U Rack Mountable

**DSN-3400-10**  
15-Bay iSCSI SAN Array with XFP



1Gbps LAN x4  
vmware READY

Windows Server 2008

**Main Features**

- RAID 0,1,1+0,5
- SATA-II
- Online Capacity Expansion and RAID Level Migration

**Physical Features**

- 15 Drive Trays
- 3U Rack Mountable

**Optional Accessories**

- 10-Gigabit XFP Transceivers  
DEM-421XT / DEM-422XT / DEM-423XT

**DSN-6110**  
12-Bay iSCSI SAN Array



1Gbps LAN x4  
vmware READY

Windows Server 2008

**Main Features**

- RAID 0,1,1+0,5,6,50,60
- SAS/SATA-II
- Single Controller

**Physical Features**

- 12 x 3.5" SAS/SATA-II Bays
- 4 x Gigabit Ports

**DSN-6120**  
12-Bay iSCSI High Availability SAN Array



1Gbps LAN x8  
vmware READY

Windows Server 2008

**Main Features**

- RAID 0,1,1+0,5,6,50,60
- SAS/SATA-II
- Redundant Controllers for High Availability

**Physical Features**

- 12 x 3.5" SAS/SATA-II Bays
- 8 x Gigabit Ports

**DSN-6410**  
12-Bay iSCSI SAN Array



1Gbps LAN x4  
vmware READY

Windows Server 2008

**Main Features**

- RAID 0,1,1+0,5,6,50,60
- SAS/SATA-II
- Single Controller

**Physical Features**

- 12 x 3.5" SAS/SATA-II Bays
- 2 x 10GbE Ports

**DSN-6420**  
12-Bay iSCSI High Availability SAN Array



1Gbps LAN x4  
vmware READY

Windows Server 2008

**Main Features**

- RAID 0,1,1+0,5,6,50,60
- SAS/SATA-II
- Redundant Controllers for High Availability

**Physical Features**

- 12 x 3.5" SAS/SATA-II Bays
- 4 x 10GbE Ports

**DSN-6020**  
12-Bay iSCSI Expansion Enclosure



1Gbps LAN x8  
vmware READY

Windows Server 2008

**Main Features**

- SAS/SATA-II
- Redundant Controllers for High Availability

**Physical Features**

- 12 x 3.5" SAS/SATA-II Bays
- 4 x 10GbE Ports

## Storage Area Network Arrays (IP SAN)



Model	DSN-1100-10	DSN-3200-10	DSN-3400-10	DSN-6110	DSN-6120	DSN-6410	DSN-6420	
Storage Features	Number of Bays	5	15	15	12	12	12	
	Cache Memory	256 MB Standard 1 GB Max	512 MB Standard 4 GB Max	512 MB Standard 4 GB Max	4 GB Standard	4 GB Standard	4 GB Standard	
	Cache Battery Backup	Built-in			Module (72 hours)			
	Bandwidth	425 Mbps	850 Mbps	1160 Mbps	500 Mbps	900 Mbps	650 Mbps	1300 Mbps
	Max Capacity	10 TB	30 TB*	30 TB*	36 TB*	36 TB*	36 TB*	36 TB*
	Drive Type	SATA-II			SAS SATA-II			
iSCSI	iSCSI Network Interface	4 x Gigabit Ports	8 x Gigabit Ports	1 x 10 GbE XFP Slot	4 x Gigabit Ports	4 x Gigabit Ports	2 x 10 GbE Ports	4 x 10 GbE Ports
	Host Interface	iSCSI Draft 20 Compliant Initiator						
	Max Hosts	1,024			16,384			
	CHAP Authentication	•						
	Management Access Control	•						
	iSCSI/TCP/IP Full Hardware Offload	•						
	Jumbo Frame	•						
	802.3ad Link Aggregation	4 Ports	8 Ports	N/A	4 Ports	4 Ports	2 Ports	2 Ports
	VLAN Support	•						
	RAID Controller	Single (Integrated)			Single (Module)	Dual (Modules)	Single (Module)	Dual (Modules)
RAID Support	0, 1, 1+0, 5			0, 1, 1+0, 3, 5, 6, 10, 30, 50, 60				
Volumes	1,024 Virtual Volumes (256 Accessible per Initiator)							
Target Nodes	1,024							
Online Capacity Expansion	•							
Hot-Swappable Drives	•							
Instant Volume Access	•							
Free Space Defragmentation	•							
Failed Drive Auto-Detection	•							
Spare Drive Auto-Rebuild	•							
RAID Level Migration	•							
Drive Roaming in Power Off	•							
Micro Rebuilds	•							
Storage Management	Web-Based GUI	Create, Manage, Expand and Monitor Storage Pool, Volumes and RAID						
	Firmware Upgradeable	•						
Physical and Environmental	Supply Type	1 x 200 W	2 + 1 x 760 W (Redundant)		2 x 500 W (Redundant)			
	Dimensions	167 x 273 x 259 mm	438 x 571 x 133 mm	438 x 571 x 133 mm	442.8 x 500.6 x 88.0 mm			
	19" Rack Space	N/A	3U	3U	2U	2U	2U	
	Operating Temperature	0 to 40°C						
Operating Humidity	20% to 90% (Non-Condensing)			5% to 95% (Non-Condensing)				

\* Max capacity can be increased with future firmware upgrades

# 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 protect data on any network.

## DNS-325

### ShareCenter™ Shadow 2-Bay Network Attached Storage



#### Main Features

- RAID 0,1
- SATA-II Drives
- 1 x Gigabit Port
- Media Server
- USB Print Server
- Add-on Utilities

#### Physical Features

- Desktop Size
- External Power Supply

## DNS-345

### ShareCenter™ Quattro 4-Bay Network Attached Storage



#### Main Features

- RAID 0,1,5,10,5 + Hot Spare, JBOD, Standard
- SATA-II Drives
- 2 x Gigabit Port
- USB Print Server

#### Physical Features

- Desktop Size
- External Power Supply

## DNS-1100-04

### ShareCenter™ Pro 1100 4-Bay Network Attached Storage



#### Main Features

- RAID 0,1,10,5,JBOD
- SATA-II Drives
- 2 x Gigabit Port
- iSCSI
- USB Print Server

#### Physical Features

- Desktop Size
- External Power Supply

## DNS-1200-05

### ShareCenter™ Pro 1200 5-Bay Network Attached Storage



#### Main Features

- RAID 0,1,5,5+Spare,6
- SATA-II Drives
- 2 x Gigabit Port
- iSCSI
- USB Print Server
- Active Directory

#### Physical Features

- Tower
- Internal Power Supply

## DNS-1550-04

### ShareCenter™ Pro 1550 4-Bay Network Attached Storage



#### Main Features

- RAID 0,1,5,6,10, JBOD
- SATA-II Drives
- 2 x Gigabit Port
- iSCSI
- USB Print Server
- Active Directory

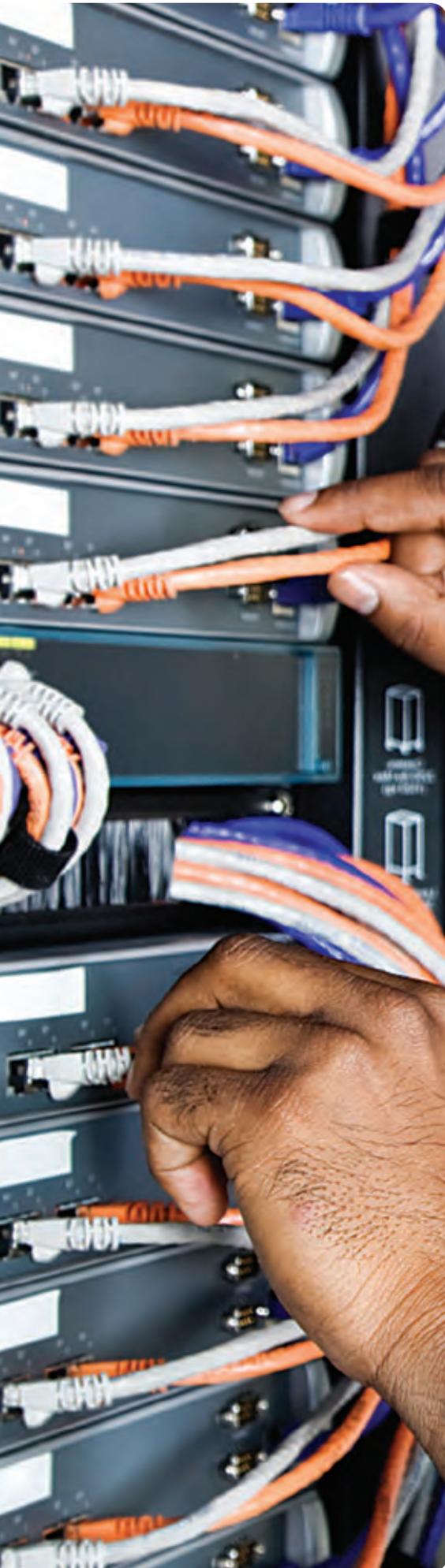
#### Physical Features

- Rackmount
- Redundant Power Supply

## Network Attached Storage (NAS)



Model	DNS-325	DNS-345	DNS-1100-04	DNS-1200-05	DNS-1550-04	
Storage Features	Number of Bays	2	4	4	5	4
	Max Capacity	4 TB	12 TB	12 TB	10 TB	12 TB
	Drive Type	SATA-II				
Network	Interfaces	1 x Gigabit Port 1 x USB Port	2 x Gigabit Ports 1 x USB Ports	2 x Gigabit Ports 2 x USB Ports	2 x Gigabit Ports 2 x USB Ports	2 x Gigabit Ports 5 x USB Ports
	802.3ad Link Aggregation		•	•	•	•
	iSCSI			•	•	•
	File System	CIFS/SMB, NFS	CIFS/SMB, NFS, AFP, DFS, WebDAV	CIFS/SMB, NFS, DFS	CIFS/SMB, NFS, DFS	CIFS/SMB, NFS, DFS, AFP
	Active Directory		•	•	•	•
	VLAN Support		•	•	•	•
	Media Server	•	•			•
	FTP Server			•		
	User/Group Quotas			•		
	Dynamic DNS			•		
	USB Drive Support	•	•	•	•	USB 2.0 Ports x 5
	USB Print Server Support			•		
	USB UPS Monitoring			•		
	RAID Controller	Single (Integrated)				Single (Module)
	Volume and RAID	RAID Support	0, 1	RAID 0, 1, 5, 10, 5+Hot Spare, JBOD, Standard	0,1,10,5 or JBOD	0, 1, 5, 5+Spare, 6
Target Nodes				64	64	64
Hot-Swappable Drives			•	•	•	•
Free Space Defragmentation		•		•	•	•
S.M.A.R.T.		•	•	•	•	•
Thin Provisioning				•	•	•
Volume Snapshots				•	•	•
Virtual Disks				•	•	•
Storage Management	Web-Based GUI	HTTP	HTTP, HTTPS	HTTP, HTTPS	HTTP, HTTPS	HTTP, HTTPS
	Easy Search Utility	•	•	•	•	•
	Firmware Upgradable	•	•	•	•	•
	Email Alerts	•	•	•	•	•
	SNMP		•	•	•	•
Physical and Environmental	Display		•	•	•	
	Supply Type	External	External	External	Internal	Internal, 226 Ws (Redundant, 80 PLUS Certified)
	Dimensions	104 x 198 x 132 mm	128 x 200 x 178 mm	205 x 162 x 258 mm	273 x 167 x 260 mm	429 x 442 x 44 mm
	Operating Temperature	0 to 40°C	0 to 40°C	0 to 40°C	0 to 40°C	5 to 35 °C (41 to 95 °F)
	Operating Humidity	5% to 90% (Non-Condensing)	5% to 90% (Non-Condensing)	5% to 90% (Non-Condensing)	5% to 90% (Non-Condensing)	10% to 85% (Non-Condensing)



# D-Link Assist:

expect instant help if the unexpected happens

Your network is the backbone of your business. Keeping it running is essential, even if the unexpected happens. D-Link Assist is a round-the-clock rapid-response technical support service that replaces faulty equipment quickly and efficiently. Maximising your uptime, and giving you the confidence that instant 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 switches, wireless access points, storage, security or IP 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

- D-Link is renowned for its award-winning technical support
- Plug into our network of highly trained specialists with in-depth knowledge of your D-Link equipment
- We'll act quickly to diagnose your problem and take instant corrective action

## Choose the enhanced service level that is right for you

Every business has different needs. That's why D-Link Assist provides a choice of enhanced service levels to suit your individual requirements and your budget. And for your convenience all D-Link Assist agreements run for one or three years.



### Gold

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. Cover applies 24/7 for every day of the year including holidays.



### Silver

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.



### Bronze

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

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.

\* Partial coverage available. <sup>1</sup> Only for the duration of the hardware warranty for as long as the original buyer owns the product. Original proof of purchase may be required.

# Index

<b>Business Solutions</b>	<b>1</b>				
Key Solutions	2				
<b>Switches</b>	<b>4</b>				
xStack Chassis Switches	6				
DES-7206-BASE	6				
DES-7210-BASE	6				
xStack Chassis Switches	8				
DGS-6604-SK	8				
DGS-6604-SK-48T	8				
DGS-6604-SK-48P	8				
xStack Gigabit Layer 3+ Managed Switches	10				
DGS-3620-28TC	10				
DGS-3620-28SC	10				
DGS-3620-28PC	10				
DGS-3620-52T	10				
DGS-3620-52P	10				
xStack Gigabit Layer 3+ Switches	12				
DGS-3612G	12				
DGS-3627	12				
DGS-3627G	12				
DGS-3650	12				
xStack Layer 2+ Managed Stackable Gigabit Switches	14				
DGS-3420-28TC	14				
DGS-3420-28SC	14				
DGS-3420-28PC	14				
DGS-3420-52T	14				
DGS-3420-52P	14				
xStack Gigabit Layer 2+ Switches	16				
DGS-3426P	16				
DGS-3427	16				
DGS-3450	16				
xStack Fast Ethernet Layer 2+ Switches	18				
DES-3528	18				
DES-3528P	18				
DES-3552	18				
xStack Gigabit Layer 2 Security Switches	20				
DGS-3200-10	20				
DGS-3200-24	20				
xStack Fast Ethernet Layer 2 Metro Ethernet Switches	22				
DES-3200-10	22				
DES-3200-18	22				
xStack Layer 2 Stackable Gigabit Switches	24				
DGS-3120-24TC	24				
DGS-3120-24PC	24				
DGS-3120-24SC	24				
DGS-3120-48TC	24				
DGS-3120-48PC	24				
Gigabit Layer 2 Managed Switches	26				
DGS-3100-24	26				
DGS-3100-24TG	26				
DGS-3100-48	26				
Fast Ethernet Layer 2 Managed Switches	28				
DES-3028	28				
DES-3028P	28				
DES-3052	28				
DES-3052P	28				
SmartPro Series Switches	30				
DGS-1500-20	30				
DGS-1500-28	30				
DGS-1500-28P	30				
DGS-1500-52	30				
Gigabit Smart Switches	32				
DGS-1210-10P	32				
DGS-1210-16	32				
DGS-1210-24	32				
DGS-1210-48	32				
Fast Ethernet Smart Switches	34				
DES-1210-08P	34				
DES-1210-28	34				
DES-1210-28P	34				
DES-1210-52	34				
Gigabit EasySmart Switches	36				
DGS-1100-16	36				
DGS-1100-24	36				
Fast Ethernet EasySmart Switches	38				
DES-1100-16	38				
DES-1100-24	38				
Gigabit Unmanaged Switches	40				
DGS-1008P	40				
DGS-1016D	40				
DGS-1024D	40				
DGS-105	40				
DGS-108	40				
Fast Ethernet Unmanaged Switches	42				
DES-1008F	42				
DES-1005P	42				
DES-1016D	42				
DES-1016R+	42				
DES-1024D	42				
DES-1024R+	42				
DES-1026G	42				
DES-105	42				
DES-108	42				
Network Management D-View 6.0	44				
DV-600S	44				
DV-600P	44				
SFP/XFP Transceivers	46				
DEM-210	46				
DEM-211	46				
DEM-310GT	46				
DEM-311GT	46				
DEM-314GT	46				
DEM-315GT	46				
DEM-330R	46				
DEM-330T	46				
DEM-331R	46				
DEM-331T	46				
DEM-431XT	46				
DEM-432XT	46				
DEM-421XT	46				
DEM-422XT	46				
DEM-423XT	46				
Redundant Power Supplies	47				
DPS-200	47				
DPS-500	47				
DPS-500DC	47				
DPS-600	47				
DPS-700	47				
DPS-800	47				
DPS-900	47				
Modules and Media Converters	48				
DES-102F	48				
DEM-410CX	48				
DEM-410X	48				
DMC-300SC	48				
DMC-515SC	48				
DMC-530SC	48				
DMC-700SC	48				
DMC-810SC	48				
DMC-1000	48				
DMC-1001	48				
DMC-1002	48				
Power over Ethernet (PoE)	49				
DWL-P50	49				
DWL-P200	49				
DPE-101GI	49				
<b>Business Wireless</b>	<b>50</b>				
Wireless N Access Points	52				
DAP-2310	52				
DAP-2360	52				
DAP-2553	52				
DAP-2590	52				
DAP-2690	52				
DWL-8600AP	52				
Wireless A/G Access Points	53				
DWL-3260AP	53				
DWL-3200AP	53				
DWL-3500AP	53				
DWL-3600AP	53				
DWL-6600AP	53				
DWL-8200AP	53				
DWL-8500AP	53				
Unified Wired/Wireless Access System	54				
DWS-4026	54				
DWL-8600AP	54				
Unified Wired/Wireless Access System	56				
DWS-3024	56				
DWS-3024L	56				
DWL-3500AP	56				
DWL-8500AP	56				
DWL-8600AP	56				
Wireless Controller	58				
DWC-1000	58				
Antennas - Single Band (2.4 GHz)	60				
ANT24-0800	60				
ANT24-0801	60				
ANT24-1200	60				
ANT24-1201	60				
Antennas - Dual Band (2.4/5 GHz)/Accessories	61				
ANT70-1000	61				
ANT70-1400N	61				
<b>Security</b>	<b>62</b>				
Unified Services Routers	63				
DSR-250N	63				
DSR-500N	63				
DSR-1000N	63				
<b>IP Surveillance</b>	<b>64</b>				
Fixed IP Cameras (Indoor)	66				
DCS-930L	66				
DCS-932L	66				
DCS-1130	66				
DCS-2130	66				
DCS-2230	66				
DCS-3430	66				
DCS-2210	68				
DCS-3411	68				
DCS-3415	68				
DCS-3112	68				
DCS-3710	68				
DCS-3716	68				
Fixed IP Cameras (Outdoor)	70				
DCS-7110	70				
DCS-7410	70				
Fixed Dome IP Cameras	72				
DCS-6111	72				
DCS-6112	72				
DCS-6113	72				
DCS-6511	72				
Pan, Tilt, Zoom (PTZ) IP Cameras	74				
DCS-5220	74				
DCS-5605	74				
DCS-5635	74				
DCS-6616	74				
DCS-6815	74				
DCS-6818	74				
Video Encoders	76				
DVS-210-1	76				
DVS-310-1	76				
Network Video Recorders	78				
DNR-322L	78				
DNR-326	78				
DNS-726-4	78				
Video Management Software (VMS)	80				
DCS-100	80				
Camera Accessories	81				
DCS-60	81				
DCS-32-1	81				
DCS-32-2	81				
DCS-32-3	81				
DCS-32-4	81				
DCS-34-2	81				
DCS-34-3	81				
DCS-80-6	81				
<b>Network Storage</b>	<b>82</b>				
Storage Area Network Arrays (IP SAN)	84				
DSN-1100-10	84				
DSN-3200-10	84				
DSN-3400-10	84				
DSN-6110	84				
DSN-6120	84				
DSN-6410	84				
DSN-6420	84				
DSN-6020	84				
Network Attached Storage (NAS)	86				
DNS-325	86				
DNS-345	86				
DNS-1100-04	86				
DNS-1200-05	86				
DNS-1550-04	86				
<b>D-Link Assist</b>	<b>88</b>				