

Workgroup/Departmental Connections

- Cost-Effective Ethernet Managed Desktops
- Gigabit Uplinks for Server/Backbone Attachments¹

Flexible Options

- Desktop and Rack-Mount Sizes
- Open Slots for Optional Modules²
- Gigabit Copper/Fiber Uplinks

Security

- Port Security
- 802.1X Guest VLAN
- 802.1X Port-based/Host-based Access Control
- IP-MAC-Port Binding
- CPU Interface Filtering
- SSH v2

Traffic Monitoring/Bandwidth Control

- Traffic Segmentation
- 802.3ad Link Aggregation (Port Trunks)
- GUI Traffic Monitoring
- RMON v1
- Port Mirroring
- Per-Port Bandwidth Control
- Broadcast/Multicast/Unicast Storm Control

Configuration/Management

- Web-based GUI
- Command Line Interface (CLI)
- SNMP v1, v2c, v3
- D-Link Single IP Management (SIM)
- Virtual Stack of up to 32 units
- DHCP Auto Configuration
- D-View 6.0 Network Management Software
- DHCP Relay
- DHCP Relay Option 60, 61
- Telnet Server

Managed L2 Ethernet Switches



The DES-3000 Series consists of high-performance managed Layer 2 switches, an ideal solution for the SMB and enterprise markets. Designed as an entry-level management solution for SMBs, these switches boast enriched advanced features. The DES-3000 Series provides a rich set of switching features that can be deployed in growing business networks. The DES-3000 Series is a cost-effective solution which is suitable for business applications that require superior performance with options for expansion. In addition, the switches offer fiber uplinks for long-distance connections that connect to different group users, such as classrooms or departments spread across campus or buildings.

Affordable Enterprise Features

The DES-3000 Series includes many features which cannot be found in other switches of the same class, such as IP-MAC-Port Binding (IMPB) user access management and Traffic Segmentation. These switches implement 802.1X port-based and host-based network access control that enables user authentication and flexibility for each network access. The DES-3000 Series supports CPU Interface Filtering for filtering out malicious packets before they reach the CPU. This also helps protect the switch from unnecessary workloads. The series supports 802.1p priority queuing and packet classification based on TOS, DSCP, MAC DA and switch ports. Other features include 802.1D Spanning Tree (STP), 802.1w Rapid Spanning Tree (RSTP), Loopback Detection (LBD), and Broadcast Storm Control that enhance network resilience. For load sharing and redundancy backup in switch cascading/server attachment configuration, the DES-3000 Series provides dynamic 802.3ad Link Aggregation port trunking. The series also features IGMP Snooping for multicast transmission and Port Mirroring for tracking network errors.

Bandwidth Control

When employing the DES-3000 Series, network administrators can manually define throughput-levels for each port in order to manage the bandwidth. This bandwidth control feature provides fine granularity by defining the limits as low as 64 Kbps. When a broadcast storm occurs, this feature can significantly limit the damage caused and ensure the ability to access the network.

Versatile Management Support






The DES-3000 Series supports standard-based management protocols such as SNMP, RMON, BOOTP, telnet and web-based GUI. With the Cable Diagnostic feature, designed primarily for administrators and customer service representatives, the quality of the cables and type of error can be rapidly determined.

Virtual Stacking

D-Link's Single IP Management (SIM) web-based management support simplifies management tasks and speeds up the process. Multiple switches can be configured, monitored and maintained from any workstation through a unique IP address. Using this web-based management tool, switches can be added to the stack and managed as a single unit. Up to 32 units can be added to a stack not limited to a specific switch model. The tree-view allows administrators to view the stacked units and a network topology displays the locations of the units providing link information.

¹ Available on DES-3010G and DES-3010F/3010FL only.
² Available on DES-3018 and DES-3026 only.

Managed L2 Ethernet Switches

| Technical Specifications | | DES-3010G | DES-3010F/3010FL | DES-3016 | DES-3018 | DES-3026 |
|--------------------------|---|---|---|--|---|---|
| | |  |  |  |  |  |
| Physical & Hardware | Size | Desktop Size, 1U Height | Desktop Size, 1U Height | Rackmount Width, 1U Height | Rackmount Width, 1U Height | Rackmount Width, 1U Height |
| | Interface | 8 10/100BASE-TX Ethernet 1 1000BASE-T Gigabit 1 SFP | 8 10/100BASE-TX Ethernet 1 1000BASE-T Gigabit 1 100BASE-FX Ethernet | 16 10/100BASE-TX Ethernet | 16 10/100BASE-TX Ethernet | 24 10/100BASE-TX Ethernet |
| | Port Options | - | - | - | 2 Open Slots For Optional Fiber & Gigabit Uplinks | 2 Open Slots For Optional Fiber & Gigabit Uplinks |
| | Console Ports | RS-232 Console Port | RS-232 Console Port | RS-232 Console Port | RS-232 Console Port | RS-232 Console Port |
| | Fiber Cable Distance | - | DES-3010F: Multi-mode Fiber Max Distance 2km DES-3010FL: Single-mode Fiber Max Distance 15km | - | - | - |
| | Stacking Topology | Virtual Stacking via SIM | Virtual Stacking via SIM | Virtual Stacking via SIM | Virtual Stacking via SIM | Virtual Stacking via SIM |
| Performance | Switching Capacity | 5.6 Gbps | 3.8 Gbps | 3.2 Gbps | 7.2 Gbps | 8.8 Gbps |
| | 64-Byte Packet Forwarding Rate | 4.2 Mpps | 2.8 Mpps | 2.3 Mpps | 5.4 Mpps | 6.6 Mpps |
| | MAC Address Table Size | 8 K | 8 K | 8 K | 8 K | 8 K |
| | DRAM for CPU | 32 MB | 32 MB | 32 MB | 32 MB | 32 MB |
| | Packet Buffer | 256 KB | 256 KB | 256 KB | 256 KB | 256 KB |
| | Flash Memory | 4 MB | 4 MB | 4 MB | 4 MB | 4 MB |
| Diagnostic LEDs | Power (Per Device) | √ | √ | √ | √ | √ |
| | Console (Per Device) | √ | √ | √ | √ | √ |
| | Link/Activity (Per Port) | √ | √ | √ | √ | √ |
| | Speed Indicator (Per Port) | √ | √ | √ | √ | √ |
| MTBF (Hours) | 247,500 hours | DES-3010F: 239,160 hours DES-3010FL: 220,196 hours | 100,511 hours | 130,465 hours | 123,925 hours | |
| Heat Dissipation | 50.47 BTUs per hour | DES-3010F: 51.15 BTUs per hour DES-3010FL: 50.47 BTUs per hour | 34.54 BTU per hour | 51.83 BTUs per hour | 57.97 BTUs per hour | |
| Power Input | 100 to 240 VAC, 50 to 60 Hz Internal Universal Power Supply | | | | | |
| Power consumption | 14.8 W | DES-3010F: 15 W DES-3010FL: 14.8 W | 11 W | 15.2 W | 17 W | |

Managed L2 Ethernet Switches

| Technical Specifications | DES-3010G | DES-3010F/3010FL | DES-3016 | DES-3018 | DES-3026 |
|--------------------------|---|------------------|---|----------|----------|
| | | | | | |
| Dimensions | 280 (W) x 180 (D) x 44(H) / Desktop Size, 1U Height | | 441 (W) x 207 (D) x 44(H) / 19-inch Rack Mount Width, 1U Height | | |
| Ventilation DC Fan | Fanless | | | | |
| Operating Temperature | 0° C to 40° C | | | | |
| Storage Temperature | -40° C to 70° C | | | | |
| Operating Humidity | 5% to 95% non-condensing | | | | |
| EMI | FCC Class A, CE, C-Tick, VCCI | | | | |
| Safety | CSA International | | | | |

Software Features

Stackability

- Virtual Stacking
 - D-Link Single IP Management
 - Up to 32 units per Virtual Stack

L2 Features

- IGMP Snooping
 - IGMP v1/v2 Snooping
 - Supports 256 Groups
 - Port-based IGMP Snooping Fast Leave
- Spanning Tree
 - 802.1D STP
 - 802.1w RSTP
 - BPDU Filtering
- Loopback Detection (LBD)
- 802.3ad Link Aggregation
 - Max. 3 groups per device, 4 ports per group (2 groups for Fast Ethernet ports, 1 group for Gigabit ports)
- Port Mirroring
 - One-to-One
 - Many-to-One

VLAN

- 802.1Q Tagged VLAN
- VLAN Group
 - Max. 4 K VLAN
- VLAN type: static only

Quality of Service (QoS)

- 802.1p Quality of Service
 - 4 Queues
- CoS based on
 - MAC DA
 - Switch Port
 - TOS
 - DSCP

- Bandwidth Control
 - Port based (Ingress/Egress, min. granularity 64 kbps)

Security

- SSH v2
- Port Security
 - Up to 10 MAC addresses per port
- IP-MAC-Port Binding (IMPB)
 - ARP Packet Inspection
 - Supports up to 500 address binding entries per device
- Traffic Segmentation
- Broadcast/Multicast/Unicast Storm Control
- CPU Interface Filtering

AAA

- 802.1X
 - Port-based Access Control
 - Host-based Access Control
 - Dynamic VLAN Assignment
- Guest VLAN
- Microsoft® NAP
 - Supports DHCP NAP

Management

- Web-based GUI
- Command Line Interface (CLI)
- Telnet Server
- TFTP Client
- SNMP v1/v2c/v3
- DHCP Relay
- DHCP Relay Option 60, 61
- SNMP Traps
- DHCP Auto-Configuration
- BootP/DHCP Client

OAM

- Cable Diagnostics

MIB Support

- RFC 1213 MIB II
- RFC 1493 4188 Bridge
- RFC 1757 RMON
- RFC 1398 1643 1650 2358 2665 3635 Ether-like MIB
- RFC 2674 802.1p
- RFC 1213 2233 IF MIB
- D-Link Private MIB
- RFC 2869 RADIUS extension standard

IETF® Standards

- RFC 768 UDP
- RFC 783 TFTP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 1338 1519 CIDR
- RFC 854 Telnet
- RFC 951 1542 BootP
- RFC 2068 HTTP
- RFC 2139 2866 RADIUS Accounting
- RFC 2472 DiffServ
- RFC 1157 SNMPv1
- RFC 1901 1908 SNMPv2c
- RFC 2570 2575 SNMPv3
- RFC 3164 3195 Syslog
- RFC 3046 DHCP Relay Option

Optional Products

Optional SFP Transceivers

| | |
|------------|---|
| DEM-310GT | 1000BASE-LX standard, single-mode fiber, max. distance 10 km, 3.3 V operating voltage |
| DEM-311GT | 1000BASE-SX standard, multi-mode fiber, max. distance 550 m, 3.3 V operating voltage |
| DEM-312GT2 | 1000BASE-SX standard, multi-mode fiber, max. distance 2 km, 3.3 V operating voltage |
| DEM-314GT | 1000BASE-LX standard, single-mode fiber, max. distance 50 km, 3.3 V operating voltage |
| DEM-315GT | 1000BASE-LX standard, single-mode fiber, max. distance 80 km, 3.3 V operating voltage |

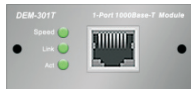
Optional WDM SFP Transceivers

| | |
|----------|---|
| DEM-330T | 1000BASE-LX standard, single-mode fiber, max. distance 10 km, 3.3 V operating voltage, Tx wavelength 1550 nm, Rx wavelength 1310 nm |
| DEM-330R | 1000BASE-LX standard, single-mode fiber, max. distance 10 km, 3.3 V operating voltage, Tx wavelength 1310 nm, Rx wavelength 1550 nm |
| DEM-331T | 1000BASE-LX standard, single-mode fiber, max. distance 40 km, 3.3 V operating voltage, Tx wavelength 1550 nm, Rx wavelength 1310 nm |
| DEM-331R | 1000BASE-LX standard, single-mode fiber, max. distance 40 km, 3.3 V operating voltage, Tx wavelength 1310 nm, Rx wavelength 1550 nm |

Optional Uplink Modules*

| | |
|-----------|---|
| DEM-301T | 10/100/1000BASE-T Gigabit Port |
| DEM-301G | SFP Slot |
| DEM-201F | 100BASE-FX Ethernet Port (SC Connector), Multi-mode fiber, max. distance 2 km |
| DEM-201FL | 100BASE-FX Ethernet Port (SC Connector), Single-mode fiber, max. distance 15 km |

DEM-301T Copper Gigabit Module



DEM-301G SFP Gigabit Module



DEM-201F Fiber Ethernet Module



DEM-201FL Fiber Ethernet Module



* 4 user-selectable optional uplink modules are available for installation in the open slots of switch models DES-3018 and DES-3026.



D-Link Corporation
 No. 289 Xinhua 3rd Road, Neihu, Taipei 114, Taiwan
 Specifications are subject to change without notice.
 D-Link is a registered trademark of D-Link Corporation and its overseas subsidiaries.
 All other trademarks belong to their respective owners.
 ©2010 D-Link Corporation. All rights reserved.
 Release 12 (January 2010)