



## 18/24-Port 10/100Mbps Switches With Copper Gigabit Ports

The DES-1018DG and DES-1024DG are high port-density 10/100Mbps desktop switches that provide cost-effective Ethernet connections to desktop computers with providing Gigabit uplinks to servers. Each provides 16 or 22 10/100BASE-TX Ethernet ports and 2 1000BASE-T copper Gigabit ports in a low-profile desktop housing. With plug-and-play installation and copper Gigabit port capable of connecting to your existing Cat. 5 twisted-pair network cable, these switches instantly enhance your workgroup's performance without requiring you to install expensive fiber cables or go through complex configuration.

### High Port Density With 16 or 22 Ethernet Ports

The switch comes with 16 10/100Mbps ports (DES-1018DG) or 22 10/100Mbps ports (DES-1024DG), allowing a workgroup to flexibly integrate to Ethernet and Fast Ethernet. These intelligent ports detect the network speed and auto-negotiate between 100BASE-TX and 10BASE-T, as well as between full and half-duplex.

### 2 Gigabit Over Copper Twisted-pair Ports

2 1000BASE-T Gigabit ports provide an inexpensive alternative to fiber-optic. Using your existing Cat. 5 copper twisted-pair wires as the transmission media, these ports allow you to instantly upgrade your server to Gigabit capability without requiring you to install new, expensive fiber cables.

### Full-duplex Gigabit Server Access

The Gigabit port provides a dedicated bandwidth for your server running at 2000Mbps full-duplex. This gives workstations a bottleneck-free path to simultaneously access server data.

### Flow Control for Secure Transmission

All ports support flow control. This function minimizes dropped packets by sending out collision signals when the port's receiving buffer is full.

### Auto-negotiation of MDI/MDIX Cross Over

All ports support auto-negotiation of MDI/MDIX cross over. This eliminates the need for cross over cables or uplink ports. Any port can simply plug to a workstation, a server or another switch, using the usual straight-through twisted-pair cable.

### Low-Cost Desktop Connections

With low-cost connection per-port, these switches are ideal for desktop connections from the PCs. The switches relieve data bottleneck by giving each workstation a dedicated bandwidth on the network.

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### Key Features

- 16 10/100BASE-TX Ethernet ports (DES-1018DG), 22 10/100BASE-TX Ethernet ports (DES-1024DG)
- 2 10/100/1000BASE-T Gigabit ports
- Auto MDI/MDIX for each port
- Full/half-duplex support for each port
- Flow control for protection against data loss for each port
- Auto-learning of network configuration
- Secure store-and-forward switching scheme
- Desktop size

# DES-1018DG & DES-1024DG

## Technical Specifications

## 10/100Mbps Unmanaged Switch

### General

#### Device Ports

- DES-1018DG: 16 10/100BASE-TX ports, 2 10/100/1000BASE-T ports
- DES-1024DG: 22 10/100BASE-TX ports, 2 10/100/1000BASE-T ports

#### Port Standards & Functions

- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- ANSI/IEEE 802.3 NWay auto-negotiation
- 802.3x Flow Control in full duplex
- Backpressure for half duplex

#### Protocol

CSMA/CD

#### Data Transfer Rates

- Ethernet:
  - 10Mbps (half-duplex)
  - 20Mbps (full-duplex)
- Fast Ethernet:
  - 100Mbps (half-duplex)
  - 200Mbps (full-duplex)
- Gigabit:
  - 2000Mbps (full-duplex)

#### Topology

Star

#### Network Cables

- 10BASE-T:
  - UTP Cat. 3, 4, 5 (100 m)
  - EIA/TIA-568 100-ohm STP (100 m)
- 100BASE-TX, 1000BASE-T:
  - UTP Cat. 5 (100 m)
  - EIA/TIA-568 100-ohm STP (100 m)

#### Media Interface Exchange

Auto MDI/MDIX for each port

#### Diagnostic LEDs

- Per device:
  - Power
- Per 10/100Mbps port:
  - Link/Activity
  - 10/100Mbps speed
- Per Gigabit port:
  - Link/Activity
  - 100/1000Mbps speed

### Performance

#### Switch Fabric

- DES-1018DG: 7.2Gbps
- DES-1024DG: 8.4Gbps

#### Transmission Method

Store-and-forward

#### Filtering Address Table

8K entries per device

#### MAC Address Learning

Automatic update

#### RAM Buffer

- DES-1018DG: 2.5Mbits per device
- DES-1024DG: 2.5Mbits per device

### Physical & Environmental

#### DC Input

5VDC, 3A

#### Power Supply

Through external power adapter

#### Power Consumption

- DES-1018DG: 9.25 watts (max.)
- DES-1024DG: 10.55 watts (max.)

#### Dimensions

- DES-1018DG: 225 (W) x 161.9 (D) x 46 (H) mm (device only)
- DES-1024DG: 225 (W) x 161.9 (D) x 46 (H) mm (device only)

#### Weight

- DES-1018DG: 0.67 kg (device only)
- DES-1024DG: 0.7 kg (device only)

#### Operating Temperature

0° to 40°C

#### Storage Temperature

-10° to 70°C

#### Operating Humidity

10% to 90% RH

#### Storage Humidity

5% to 90% RH

#### Emission (EMI)

- FCC Class A
- CE Class A
- VCCI Class A



## Ordering Information

### Fast Ethernet Switch

|                   |  |
|-------------------|--|
| <b>DES-1018DG</b> | 16 10/100BASE-TX ports, 2 1000BASE-T ports |
| <b>DES-1024DG</b> | 22 10/100BASE-TX ports, 2 1000BASE-T ports |

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