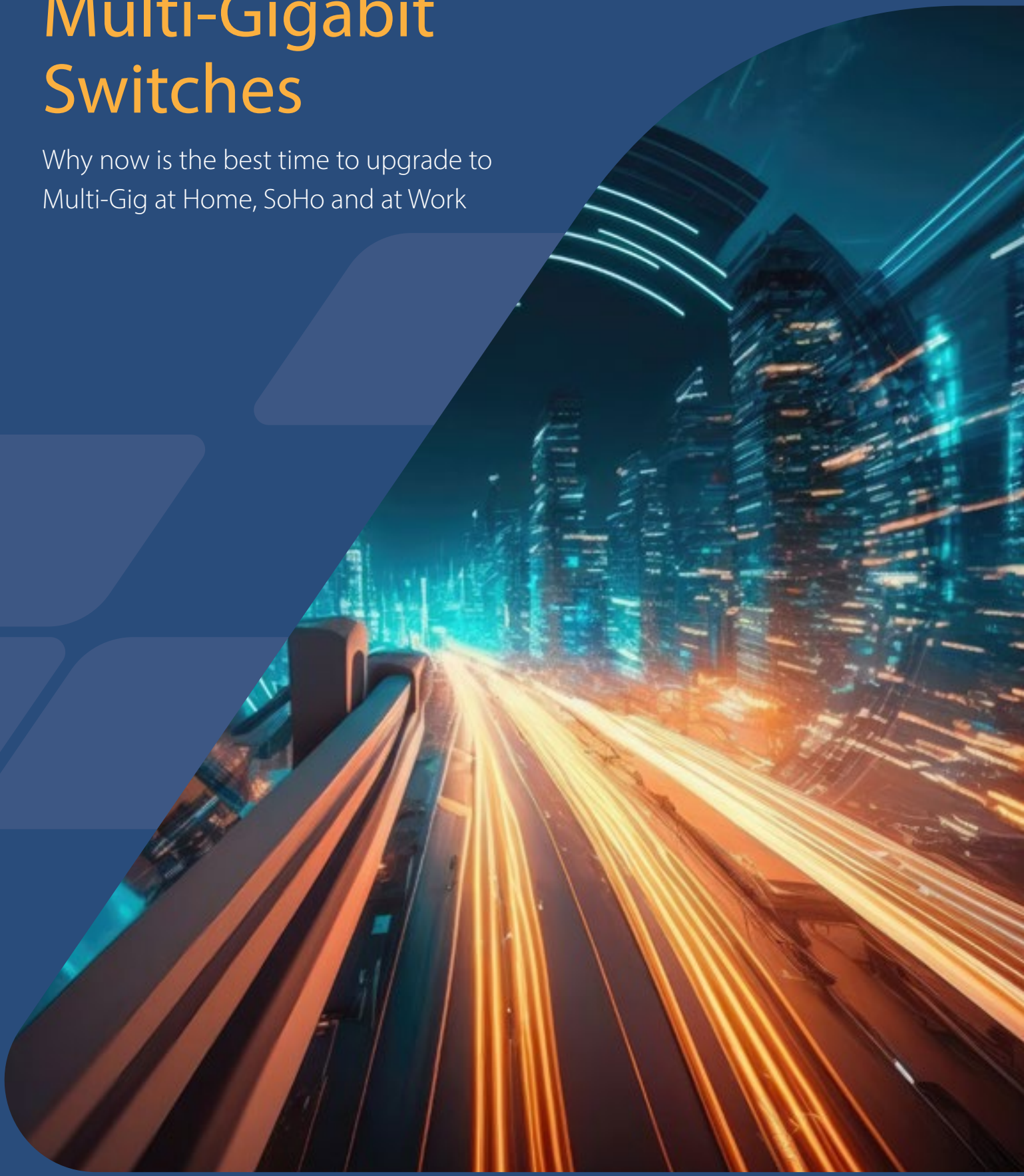
D-Link®

Multi-Gigabit Switches

Why now is the best time to upgrade to Multi-Gig at Home, SoHo and at Work



What is a Multi-Gigabit Switch?

What is Multi-Gigabit?

Multi-Gigabit Ethernet is an upgraded version of traditional gigabit ethernet (1Gbps), that supports speeds of up to 25Gbps (2.5,5 and 10Gbps being the most popular variants). Multi-Gig Ethernet is increasing in popularity as home broadband speeds and the number of Wi-Fi enabled devices connected to our home networks grow.

What can I connect?

Multi-Gig Ethernet can be used to connect a variety of devices to a network, including computers, NAS devices, and high-end gaming consoles. It can also be used to connect a home network to a fibre optic internet connection. To use Multi-Gig Ethernet, you will need a router and your other devices to support the technology. You will also need Cat5e or Cat6a cabling (see P10 for full info.)

Why Multi-Gigabit for homes?

A good time to consider Multi-Gig Ethernet would be if you're;

- Future-proofing your home networking solution.
- Creating large files of content or need instant access to.
- Access your networks full potential read/write speeds.

Why Multi-Gigabit for businesses?

There are several benefits, first, it can help to improve the performance of applications that require a lot of bandwidth, such as video conferencing, file sharing, and cloud computing.

Second, it can help to reduce latency, which is the time it takes for data to travel from one point to another. This is important for apps that require real-time communication, e.g. video streaming and conferencing.

Third, future-proof your business's network by providing a headroom for growth. As bandwidth demands increase, Multi-Gig Ethernet will meet those demands without an expensive upgrade to your network.

Set up Multi-Gig Switch at home

To set up Multi-Gig Ethernet at home, you will need the following:

- A Multi-Gig Ethernet router or switch.
- Cat 5e Ethernet cables (or better.)
- Devices that support Multi-Gig Ethernet.

Once you have all of the necessary equipment, you can follow these steps to set up Multi-Gig Ethernet:

- Connect your Multi-Gig Ethernet router or switch to your modem.
- Use Cat 5e Ethernet cables to connect your devices to the router or switch.
- Configure your devices to use Multi-Gig Ethernet.

Benefits of using Multi-Gig Ethernet:

- Faster speeds: Multi-Gig Ethernet can provide speeds up to 25 times faster than Gigabit Ethernet. Useful for activities such as transferring large files, streaming high-definition videos, and gaming.
- Future-proof: Multi-Gig Ethernet is designed to support the needs of future devices. This means that you can use it today and be confident that it will be able to support your devices for years to come.

If you are looking for a way to improve the speed and performance of your home network, Multi-Gig Ethernet is a great option. It is easy to set up and use, and provides significant benefits over Gigabit Ethernet.

Multi-Gigabit Options

D-Link has 4 Multi-Gigabit switch options, ready to upgrade your home networking speeds

DMS-107

7-Port Multi-Gigabit Unmanaged Switch

The DMS-107 with two 2.5 Gigabit and five Gigabit ports will upgrade your network to eliminate bottlenecks & maximise

DMS-105

5-Port Multi-Gigabit Unmanaged Switch

Maximise network throughput with 2.5Gbps Multi-Gigabit Ethernet on each port of this compact 5-port switch

DMS-108

8-Port Multi-Gigabit Unmanaged Switch

Eight 2.5 Gigabit Ethernet ports provide multi-speed transmission for high-performance Wi-Fi 6 networks

DMS-106XT

6-Port Multi-Gigabit

Enjoy an ultra-fast 10-Gigabit uplink, five 2.5-Gigabit ports, Turbo Mode for port-based QoS prioritisation and multicoloured LED lighting.

DUB-E250 - Add Multi-Gig Ethernet to any PC

USB-C to 2.5G Ethernet Adapter

Add lightning-fast multi-Gigabit wired connectivity to your desktop or laptop computer

Upgrade Your Cables

Upgrade your Ethernet cables to make the most of Multi-Gigabit

An Ethernet cable, also known as a network cable or LAN cable, is a physical cord used to connect two or more devices together on a network to transfer data. It is primarily used to connect a device such as a computer, laptop, or printer to a router, modem, hub, or switch.

Ethernet cables come in various lengths and types, ranging from Category 5 (Cat5), Category 6 (Cat6), and Cat7. These cables vary in their maximum transmission speed,

- **Cat5e (Category 5e)** Ethernet cable can support 2.5GbE over short distances (up to 45 metres or 148 feet).
- **Cat6 (Category 6)** are capable of transmitting data up to 55 metres (180 feet).
- **Cat6a (Category 6a)** can handle 2.5GbE over distances of up to 100 metres (328 feet) without significant signal degradation.
- **Cat7 (Category 7)** offers even higher performance and shielding capabilities than Cat6a and it is capable of supporting 2.5GbE over distances of up to 100 metres.

So in most cases, other than over long distances, Cat 5e cable will suffice for Multi-Gig, especially for those installing in a home.

**Maximum wireless signal rate derived from IEEE Standard 802.11ax and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, may lower actual data throughput rate. Environmental factors may adversely affect wireless signal range.

DMS-1250 - Multi-Gigabit Smart Managed Switches

The D-Link DMS-1250 Series is a family of Multi-Gigabit Ethernet smart managed switches designed for high-performance, scalable business networks. Featuring multi-Gigabit connectivity, Power over Ethernet (PoE), advanced Layer 2/L2+ features, and versatile management tools, these switches are ideal for supporting Wi-Fi 6/7 deployments and other bandwidth-intensive applications.

Multi-Gigabit Speeds for Wi-Fi 6
The DMS-1250 Series delivers 2.5 Gbps Ethernet ports to support Wi-Fi 6/7 applications, such as high-definition streaming and large file transfers. It also includes 10 Gbps Ethernet and SFP+ uplink ports for high-speed connections to core infrastructure, reducing bottlenecks and boosting network efficiency.

Robust PoE Capabilities
The DMS-1250 Series supports IEEE 802.3at, with 18 and 24-port models (coming soon) also supporting 802.3bt (PoE++), offering up to 475W to power devices like IP cameras, VoIP phones, and wireless access points. Features like Perpetual PoE ensure uninterrupted power during switch reboots, while Fast PoE enables rapid power delivery.

Advanced Security Features
The series prioritises network security with D-Link's Safeguard Engine™, protecting against traffic flooding from malicious attacks. 802.1X authentication verifies clients via RADIUS servers, while Access Control Lists (ACL) restrict traffic between network segments.

Flexible Management Tools
The DMS-1250 Series supports D-Link Nuclias Connect for centralised device management, D-View 8 for advanced network monitoring, and a full CLI via console or Telnet for precise configurations.

Enhanced Surge Protection and L2 Features
All 2.5-Gigabit ports feature 6kV surge protection, advanced L2/L2+ features include VLANs, QoS, Spanning Tree Protocol, Auto Surveillance VLAN, and Voice VLAN for prioritised video and voice traffic.

*Number of connected devices and coverage area are D-link test results. Performance may vary under different environments.

Advantages of Smart Multi-Gig

In today's fast-paced digital landscape, businesses rely on robust network infrastructure to stay competitive. Smart multi-gig switches have emerged as a game-changer, offering unparalleled speed, flexibility, and efficiency. Here's a look at why these advanced networking devices are a must-have for modern businesses.

Lightning-Fast Speeds for High-Demand Networks
Smart multi-gig switches support speeds beyond traditional Gigabit Ethernet, typically ranging from 2.5Gbps to 10Gbps per port. This is ideal for businesses with bandwidth-intensive applications like 4K video streaming, large file transfers, or cloud-based services. Accommodating multi-gigabit speeds allows businesses to reduce bottlenecks and boost productivity

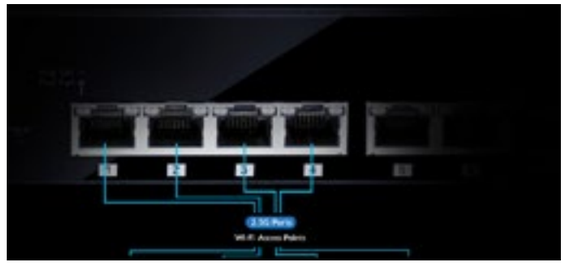
Future-Proof Your Network
With the rise of Wi-Fi 6/6E & 7 standards, access points and devices increasingly demand higher bandwidth. Smart multi-gig switches are designed to support these technologies, making them a future-proof investment.

Intelligent Traffic Management
Unlike traditional switches, smart multi-gig switches offer advanced features like Quality of Service (QoS), VLAN support, and traffic prioritisation. These tools allow businesses to optimise network performance by allocating bandwidth to critical applications.

Smart multi-gig switches are a powerful solution for businesses seeking to enhance network performance, security, and scalability. By delivering blazing-fast speeds, intelligent management, and future-ready compatibility, they empower organisations to meet current demands and adapt to evolving technologies. Investing in a smart multi-gig switch is a strategic move to keep your business connected, efficient, and ahead of the curve.

DMS-1100-10TP

10-Port Multi-Gigabit PoE Smart Managed Switch



The DMS-1100-10TP is ideal for businesses looking to upgrade to Wi-Fi 6. Featuring eight 2.5 Gigabit PoE and two 10 Gigabit SFP+ uplink ports, it provides the multi-gigabit connectivity needed to maximise throughput of high-performance 802.11ax access points

Fully Managed Multi-Gig Switches

Managed Multi-Gigabit switches are the most powerful and often designed to be the core of the network.

As your business grows, you have to consider the demand for improved internet experience, security, data protection, governance & compliance to name a few. You may have existing switches, but In order to properly configure the network for maximum efficiency, it would be a good idea to employ the use of network managed switches.

For network administrators, operation managers, business owners, the underlying network infrastructure must become more agile, flexible, consistent across all environments, which very simply cannot be achieved using basic networking devices.

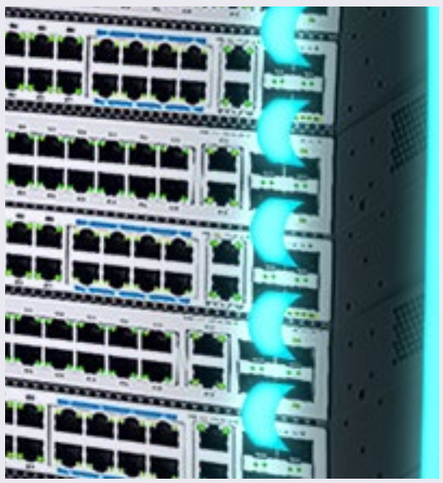
Fully Managed switches offer all the features of Smart Managed Plus switches with additional Layer 2 (switching) and Layer 3 (routing) functionality. The DMS-3130 Series is a range of Layer 3 Stackable Managed Switches designed to connect end-users in a secure enterprise or metro Ethernet access network. These switches support both multicasting and enhanced security, making them an ideal multi-Gigabit access layer solution.

Key Features

- Multi-Gigabit 2.5G/5G/10G/25G support
- 2.5GBASE-T PoE+ and 5GBASE-T PoE++ support
- Four 25G SFP28 uplink ports
- Redundant power supply (RPS) support
- IEEE 802.1D/802.1w/802.1s Spanning Tree
- Loopback Detection (LBD)
- Physical stack of up to 9 units

Layer 3 Stackable Multi-Gigabit Managed Switches

DMS-3130-30PS, DMS-3130-30TS



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The DMS-3130-30PS provides sixteen 2.5G ports supporting 802.3af/at PoE and eight 5G ports supporting 60W 802.3bt PoE standards with a power budget of 740 watts expandable to 960 watts with dual power supplies. Each model boasts two 10GBASE-T ports and four 10G/25G SFP28 ports to provide versatility and speed

*Data rates are theoretical. Data transfer rate depends on network capacity, signal strength, and environmental factors.

DMS-3130 Features

- An integrated software image that provides powerful L2 and L3 features to fulfil different applications' requirements, capable of building solid networks
- Multi-Gigabit ports with four embedded high-speed 25G SFP28 and two 10GBase-T ports simplify the network deployment by providing versatile options for redundancy and uplink connections
- DMS-3130-30PS comes with sixteen 2.5G PoE+ and eight 5G PoE++ ports, ideal for high performance Wi-Fi 6/6E access points
- Physical stacking provides agile expansion and redundancy while reliability through fault-tolerant topologies ensures rock-solid connectivity
- Built-in high-capacity 6 kV surge protection on all PoE and non-PoE Ethernet access ports and requires no external surge protection devices

Transceivers

Transceivers allow for the expansion of Ethernet networks by providing high-speed connections over a fibre-optic cabling. The fibre-optic transceivers have standard duplex LC connectors to provide maximum compatibility. They are hot-pluggable and Small Form Factor Pluggable (SFP) compliant with the Multi-Source Agreement (MSA) specification.

Small Form Pluggable (SFP) Package

Transceivers use the Small Form-factor Pluggable (SFP) design. They provide the necessary signal amplification for data to be transmitted to the network cable from the port, and vice versa. The SFP form factor is advantageous because it is smaller than other form factors, ensuring lower costs, lower power disruption, and higher port density.

Multiple Applications

Applications of fibre transceivers include distributed multi-processing, Gigabit switch cascading, high-speed I/O file transfer, bus extension application, and channel extender/data storage. This versatility is invaluable for an expanding network, and helps the infrastructure grow with the business.

Hot-Pluggable

All D-Link transceivers are hot-pluggable. You can connect a transceiver while the system is powered on without causing any issues, and easily swap one for another without having to reboot the switch each time. This permits modules to be added or removed without interrupting the network, facilitating maintenance and greatly reducing downtime.

DEM-4 Series

SFP+ 10GBASE-SR Multi-Mode Fibre

D-Link's 10G SFP+ Module series are hot-swappable SFP+ transceivers that plug into SFP+ slots on switches and support 10G Ethernet. The D-Link 10GBASE SFP+ Module Series transceivers offer customers a wide variety of 10G Ethernet connectivity options for data centres, enterprise wiring closets, and service provider transport applications.

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