

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?



Set up Multi-Gig at home

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 becoming more popular as internet speeds and the demands on home networks increase.

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 other devices that 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.

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.

Once you have completed these steps, you will be able to enjoy the faster speeds of 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 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 performance.


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 Unmanaged Switch

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

Compatible Devices

Not many devices are compatible with 2.5GbE yet. However, the number of devices that support 2.5GbE is growing rapidly. Here are some of the devices that support 2.5GbE:

- Computers: Some newer laptops and desktops come with 2.5GbE ports.
- Network switches: Many new network switches support 2.5GbE ports.
- NAS devices: Some NAS devices support 2.5GbE ports.
- Routers: Some newer routers support 2.5GbE ports.
- Modems: Some newer modems support 2.5GbE ports.

As the demand for 2.5GbE grows, we can expect to see more and more devices that support this standard. In the meanwhile, D-Link offers two solutions to upgrade your device to take advantage of the upgraded speeds

DUB-E250

Add lightning-fast multi-Gigabit wired connectivity to your desktop or laptop computer directly through your USB-C port



DUB-2315

The DUB-2315 network adapter provides 2.5 Gigabit Ethernet connectivity for Windows and macOS computers, Chromebooks and iPad Pro, via a USB-C or USB-A connection.

Smart Multi-Gig Switches for Business

The Power of Smart Multi-Gig Switches

Smart multi-gig switches, offer a host of advanced features and capabilities that empower businesses to optimise their networks for enhanced performance, security, and flexibility. Let's look at the reasons why businesses should upgrade to smart Multi-Gig switches:

Enhanced Network Management

Smart multi-gig switches provide a web-based interface that allows businesses to monitor and manage their networks with ease. This enhanced control empowers businesses to troubleshoot issues, implement quality-of-service (QoS) policies, and optimise network resources to meet specific business requirements.

Traffic Prioritisation and Segmentation:

Smart multi-gig switches offer features like VLAN (Virtual Local Area Network) support, which allows network administrators to segment traffic into separate virtual networks. This segmentation improves network security, isolates sensitive data, and ensures smooth data flow for critical applications.

Scalability and Future-Proofing:

Smart multi-gig switches provide scalability options that can accommodate growing network requirements. With support for higher data rates, such as 2.5-10 Gbps, these switches future-proof your network by allowing for seamless integration of high-bandwidth devices and technologies. This scalability ensures that your network can adapt to future advancements without the need for costly hardware upgrades.

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



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, bandwidth, and frequency range.

- **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.



Fully Managed Multi-Gigabit Switches

Maximise your Wi-Fi 6/6E

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

- Multigigabit 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



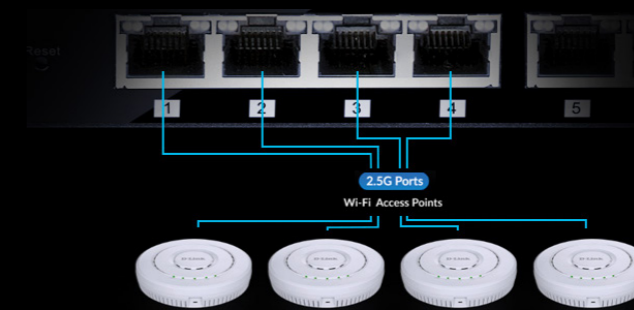
Designed for Wi-Fi 6/6E Access Points

To get the best out of Wi-Fi 6 or 6E, a multigigabit switch is essential.

2.5 Gigabit Ethernet maximises the bandwidth that Wi-Fi 6 access points connect to the network with and optimise throughput to connected devices.

Benefits of using Wi-Fi 6/6E.

- **Faster speeds:** Bring blazing Wi-Fi 6 connectivity for enhanced user experiences. Achieve high data rate and low-latency performance in high-density scenarios - with outstanding wireless efficiency.
- **Efficient operations:** Greatly increases network capacity to handle groups of devices efficiently, and dramatically improves network performance.
- **Meet increasing demand:** Customer Wi-Fi expectations are high. Deliver a business network without bandwidth or speed dropouts, no matter the number of devices connected.





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

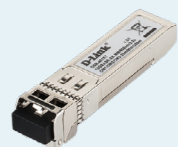
Applications of fibre transceivers include distributed multi-processing, Gigabit switch cascading, high-speed I/O file transfer, bus extension application, and channel extender/data storage. This versatility is invaluable for an expanding network, and helps the infrastructure grow with the business.

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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