

Your Source for Cost Effective Network Upgrades and Data Center Components

Frequently Asked Questions:

ARE GORILLADRIVE OPTICS COMPONENTS COMPATIBLE WITH ALL OEM'S?

Yes, GorillaDrive Optics components are tested in our on-site lab to guarantee 100% compatibility for any OEM.

DOES GORILLADRIVE OPTICS OFFER THIRD PARTY SOLUTIONS FOR OTHER THAN CISCO AND HP PROCURVE?

Yes, GorillaDrive Optics offers a 100% compatible third party option for any OEM from Adtran to ZyXel.

FIBER OPTICS | MULTIMODE VS. SINGLEMODE, DUPLEX VS. SIMPLEX

Multimode

Multimode fiber optic cable has a large-diameter core that is much larger than the wavelength of light transmitted, and therefore has multiple pathways of light—several wavelengths of light are used in the fiber core.

Multimode fiber optic cable can be used for most general fiber applications. Use multimode fiber for bringing fiber to the desktop, for adding segments to your existing network, or in smaller applications such as alarm systems. Multimode cable comes with two different core sizes: 50 micron or 62.5 micron.

50- vs. 62.5-micron cable. Although 50-micron fiber features a smaller core, which is the light-carrying portion of the fiber, both 62.5- and 50-micron cable feature the same glass cladding diameter of 125 microns. You can use both in the same types of networks, although 50-micron cable is recommended for premise applications: backbone, horizontal, and intrabuilding connections, and should be considered especially for any new construction and installations. Both types can use either LED or laser light sources.

The main difference between 50-micron and 62.5-micron cable is in bandwidth—50-micron cable features three times the bandwidth of standard 62.5-micron cable, particularly at 850 nm. The 850-nm wavelength is becoming more important as lasers are being used more frequently as a light source.

Other differences are distance and speed. 50-micron cable provides longer link lengths and/or higher speeds in the 850-nm wavelength.

Fiber Type	Bandwidth (minimum)	at 850 nm	at 1310 nm
50/125 µm	50 MHz/km	500 m	500 m
62.5/125 µm	160 MHz/km	220 m	500 m

Singlemode

Singlemode fiber optic cable has a small core and only one pathway of light. With only a single wavelength of light passing through its core, singlemode realigns the light toward the center of the core instead of simply bouncing it off the edge of the core as with multimode.

Singlemode is typically used in long-haul network connections spread out over extended areas—longer than a few miles. For example, telcos use it for connections between switching offices. Singlemode cable features a 9-micron glass core.

Duplex

Duplex cable consists of two fibers, usually in a zipcord (side-by-side) style. Use duplex multimode or singlemode fiber optic cable for applications that require simultaneous, bi-directional data transfer. Workstations, fiber switches and servers, fiber modems, and similar hardware require duplex cable. Duplex fiber is available in singlemode and multimode.

Simplex

Simplex fiber optic cable consists of a single fiber, and is used in applications that only require one-way data transfer. For instance, an interstate trucking scale that sends the weight of the truck to a monitoring station or an oil line monitor that sends data about oil flow to a central location. Simplex fiber is available in singlemode and multimode.

HOW FAR CAN A 10GB (XENPAK, X2, AND XFP) TRANSCEIVER TRANSMIT DATA?

- SR or Short Reach transceivers can transmit 10Gbps of data up to 550m over multimode fiber
- LR or Long Reach transceivers can transmit 10Gbps of data up to 10km over singlemode fiber
- ER or Extended Reach transceivers can transmit 10Gbps of data up to 40km over singlemode fiber
- ZR also Extended Reach transceivers can transmit 10Gbps of data up to 80km over singlemode fiber

CONTACT:

For more information and pricing, please contact your sales representative at:

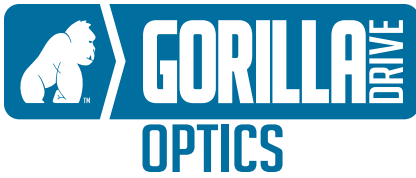
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Frequently Asked Questions (Continued):

HOW FAR CAN A GBIC TRANSMIT DATA?

Depending on the transceiver and type of fiber used, data can be transmitted up to distances of 100km.

- T-Based transceivers can transmit 1000Mbps of data up to 100M over standard Category 5 unshielded twisted pair copper cabling
- SX or Short Wave transceivers can transmit 1000Mbps of data up to 550m over multimode fiber
- LX or LH Long Wave transceivers can transmit 1000Mbps of data up to 550m over multimode fiber and up to 10km over singlemode fiber
- ZX or Extended reach transceivers can transmit 1000Mbps of data up to 70km over singlemode fiber
- BX or Bi-Directional transceivers can transmit 1000Mbps of data up to 10km over a single strand of singlemode fiber
- CWDM (Coarse Wavelength Division Multiplexing) transceivers can transmit 1000Mbps or 10Gpbs of data up to 80km over singlemode fiber
- DWDM (Dense Wavelength Division Multiplexing) transceivers can transmit 1000Mbps or 10Gpbs of data up to 80km over singlemode fiber

MOST COMMON TYPE OF CONNECTOR

- LC or Lucent Connector is for use with SFP and XFP transceivers
- SC or Standard Connector is for use with GBIC, XENPAK, and X2 transceivers
- RJ-45 Standard Ethernet Copper connector

WHAT IS A GBIC?

Short for gigabit interface converter, a transceiver that converts serial electric signals to serial optical signals and vice versa. In networking, a GBIC is used to interface a fiber optic system with an Ethernet system, such as Fibre Channel and Gigabit Ethernet.

WHAT IS A ROUTER?

A router is a device that forwards data packets along networks. A router is connected to at least two networks, commonly two LANs or WANs or a LAN and its ISP's network. Routers are located at gateways, the places where two or more networks connect, and are the critical device that keeps data flowing between networks and keeps the networks connected to the Internet.

WHAT IS A SWITCH?

A switch is used in a wired network to connect Ethernet cables from a number of devices together. The switch allows each device to talk to the others. Switches aren't used in networks with only wireless connections, since network devices such as routers and adapters communicate directly with one another, with nothing in between. Although you can use the ports on the back of a router or modem to connect a few Ethernet devices together, depending on the model, switches have a number of advantages:

- Switches allow dozens of devices to connect.
- Switches keep traffic between two devices from getting in the way of your other devices using the same network.
- Switches allow control of who has access to various parts of the network.
- Switches allow you to monitor usage.
- Switches allow communication (within your network) that's even faster than the Internet.
- High-end switches have pluggable modules to tailor them to network needs.

WHAT IS A XENPAK?

XENPAK is a standard that defines a type of fiber-optic or copper transceiver module which is compatible with the 10 Gigabit Ethernet (10GE) standard.

WHAT IS AN SFP?

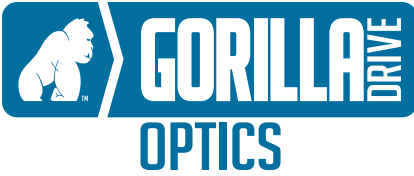
SFP stands for small form-factor pluggable. They function the same as a GBIC however, they are much smaller in size.

WHAT IS GIGABIT ETHERNET?

Gigabit Ethernet, a transmission technology based on the Ethernet frame format and protocol used in local area networks (LANs), provides a data rate of 1 billion bits per second (one gigabit). Gigabit Ethernet is defined in the IEEE 802.3 standard and is currently being used as the backbone in many enterprise networks. Gigabit Ethernet is carried primarily on optical fiber (with very short distances possible on copper media).

WHAT IS SFP+?

SFP+ is a small form factor pluggable 10Gbps transceiver. Functions the same as Xenpak, X2 and XFP but still smaller. These are similar to the size of SFP but slightly different.



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Frequently Asked Questions (Continued):

WHAT IS THE DIFFERENCE BETWEEN GORILLADRIVE OPTICS ALTERNATIVE NETWORKING SOLUTIONS AND OTHER THIRD PARTY MANUFACTURERS?

Absolutely nothing, the only difference is price, packaging and service.

WHAT IS THE WARRANTY ON GORILLADRIVE OPTICS THIRD PARTY TRANSCEIVERS AND MEMORY?

All GorillaDrive Optics third party transceivers and memory come with a LIFETIME WARRANTY!

WHAT IS XFP?

XFP is a small form factor pluggable 10Gbps transceiver. Functions the same as XENPAK and X2, but comes in a much smaller package.

WHY USE A GBIC?

GBIC modules allow technicians to easily configure and upgrade electro-optical communications networks. The typical GBIC transceiver is a plug-in module that is hot-swappable (it can be removed and replaced without turning off the system). The devices are economical, because they eliminate the necessity for replacing entire boards at the system level. Upgrading can be done with any number of units at a time, from an individual module to all the modules in a system.

WILL THE USE OF GORILLADRIVE OPTICS THIRD PARTY COMPONENTS VOID MY OEM WARRANTY LIKE SMARTNET?

NO, An OEM can not void warranty for the use of third party components.