

Industrial 2-Channel Optical Fiber Bypass Switch



To protect the critical fiber optic network from power system failure, PLANET IFB-244 Series is an ultra-fast auto-recovering solution to prevent and maintain fiber network communication during power loss.

The IFB-244 Series is an **industrial-grade optical fiber bypass switch** with built-in **4 duplex LC or SC** connectors featuring 2-channel duplex or 4-channel simplex fiber connection with optical bypass function. The optical fiber ports support **100Gbps/40Gbps/10Gbps/1Gbps/100Mbps** fiber connections. It automatically switches optic network traffic to prevent link failure during power loss. It also allows the local network switch to be replaced or removed without network downtime.

Optical Fiber Bypass Mechanism

The IFB-244 Series applies fiber-to-fiber technology to achieve ultra-low losses and ultra-fast switching time. Two of the fiber ports are used to connect to **two remote fiber switches** and the other two fiber ports are used to connect to the **local fiber switch**. The IFB-244 Series and the local fiber Ethernet switch are powered from the same power source.

When the system power is on, the IFB-244 Series operates in the **Normal mode** and forwards Ethernet packets between two remote fiber switches and the local fiber switch.

When the system power failure occurs, the IFB-244 Series operates in the **Bypass mode** that directly forwards Ethernet packet between two remote fiber switches and bypass the local fiber switch.

Once the system power is recovered, the network traffic resumes operation between two remote fiber switches and local fiber switch.

Physical Port

- 2-channel duplex or 4-channel simplex fiber connection with optical bypass function
- Supports 100Gbps/40Gbps/10Gbps/1Gbps and 100Mbps fiber connections
- Available in single mode or multimode
- Available in LC/SC connectors

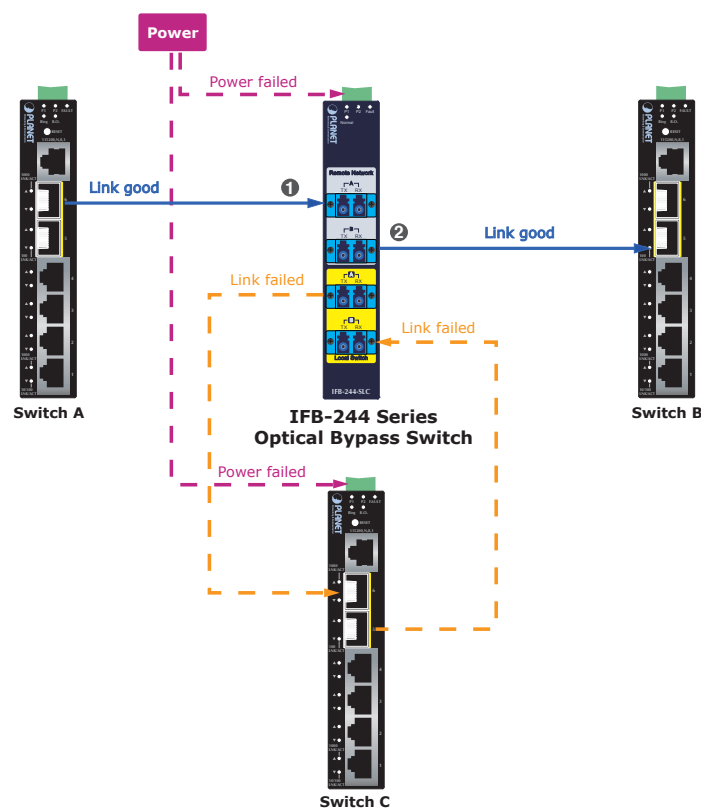
Optical Fiber Bypass

- Bypass switch time <8ms
- Low return loss
- Throughput not affected and no extra delay
- Increased reliability on critical network links

Industrial Case and Installation

- IP30-rated metal housing
- Redundant dual 9~48V DC or 24V AC power inputs
- DIN-rail and wall-mount designs
- Connective removable terminal block
- Relay output for power failure warning
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- Free fall, shock-proof and vibration-proof for industries
- Low power consumption with 0.54W

Optical Fiber Ethernet Connection with Optical Bypass Switch



2

Environmentally Hardened Design

The IFB-244 Series possesses an integrated power supply source with a wide range of voltages (**9 to 48V DC** or **24V AC**) for worldwide high availability applications requiring dual or backup power inputs. Being able to operate under wide temperature range from -40 to 75 degrees C, the IFB-244 Series can be placed in almost any difficult environment.



DIN-rail Mounting



Wall Mounting



**Side Wall Mounting
(Space saving)**

Robust Protection

The IFB-244 Series provides contact discharge of $\pm 6\text{KV}$ DC and air discharge of $\pm 8\text{KV}$ DC for Ethernet ESD protection. It also supports $\pm 6\text{KV}$ surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Flexible and Easy Installation with Limited Space

The IFB-244 Series is specially designed to be installed in a narrow environment, such as wall enclosure. It can be installed by fixed wall mounting or DIN rail, thereby making its usability more flexibly and easily in any space-limited location.

Dual Power Input for High Availability Network System

The IFB-244 Series features a strong dual power input system with wide-ranging voltages incorporated into customer's automation network to enhance system reliability and uptime. In the example below, when power supply 1 fails to work, the hardware failover function will be activated automatically to keep powering the IFB-244 Series via power supply 2 without any break of operation.

Applications

The IFB-244 Series industrial optical fiber bypass switch can be used in **critical and major optical networks** where fiber link failures are not tolerated, such as in power substation, train and bus station, IP surveillance system, railway monitoring, communication systems, and factory automation.

