

Hybrid Adapter

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Variants

SC/UPC Male to SC/APC Female SC/APC Male to LC/APC Female LC/UPC Female to FC/UPC Male SC/UPC Male to LC/UPC Female SC/APC Male to SC/UPC Female SC/UPC Male to LC/APC Female SC/APC Male to LC/UPC Female

Details

A **hybrid fiber optic adapter** is a **passive connectivity device** used to **join two different types of fiber optic connectors** in a single interface. Unlike standard adapters that connect the same connector type on both sides, a hybrid adapter is specifically designed to **convert one connector type to another** while maintaining proper optical alignment.

In fiber networks, hybrid adapters are commonly used when equipment ports and patch cords have **mismatched connector types**. For example, an SC connector on one side and an LC connector on the other. The adapter allows these two connectors to mate directly **without splicing or using special patch cables**.

Hybrid adapters are manufactured with **high-precision ceramic sleeves** to ensure accurate fiber core alignment, resulting in **low insertion loss and high return loss**. They are fully passive devices, meaning they require **no power and no signal processing**, and they do not change the optical signal—only the physical connection format.

These adapters are widely used in **telecom networks, FTTH systems, patch panels, optical distribution frames (ODF), and test environments**, where flexibility and compatibility between different connector standards are essential.

Insertion Loss	
1310 nm	0.01

1550nm	0.13
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Return Loss	
1310 nm	63.9
1550nm	64.3