

Cold splicing of fiber optic cables and patch cords



Article Overview

Cold splicing is a mechanical method to join fiber optic patch cords quickly and cost-effectively without fusion, using a precise alignment device and snap-in connectors.

Overview

Cold splicing, also known as mechanical splicing, is a technique used to join two fiber optic cables or a fiber pigtail to a patch cord without applying heat or fusion. It relies on a precise V-groove alignment and an index-matching gel to ensure light passes through the joint with minimal loss. This method is faster and simpler than fusion splicing, making it ideal for field installations, temporary connections, or FTTH deployments where speed and convenience are critical .

Components

- Cold splicer housing: Holds the fibers in place and contains the V-groove for alignment.
- Snap rings or clamps: Secure the fiber ends within the splicer.
- Index-matching gel: Bridges the microscopic gap between fiber ends to reduce reflection and signal loss.
- Cutting tool: Used to cleave the fiber to the correct length before insertion.

Step-by-Step Procedure

- Install the cold connector: Snap the connector into the splicer housing, ensuring t...

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