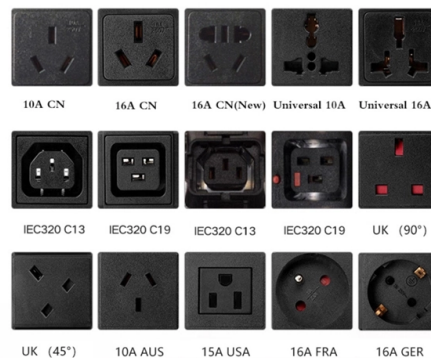


Fiber Optic Patch Cord Assembly Techniques



Article Overview

Fiber optic patch cords are assembled through precise cable preparation, connector termination, epoxy curing, end-face polishing, and rigorous testing to ensure low-loss, high-reliability connections.

Step 1: Cable Preparation

The process begins with selecting and cutting the optical fiber to the required length, ensuring accuracy within a few centimeters. The outer jacket is stripped carefully to expose 12–15 mm of bare fiber without nicking or scratching the 125 μm cladding. Aramid yarn (Kevlar®) is left intact to provide tensile strength. The bare fiber is then cleaned with a lint-free wipe and 99.9%+ isopropyl alcohol in a single smooth motion to remove all contaminants, which is critical for low-loss connections .

Step 2: Connector Termination

The prepared fiber is inserted into the connector ferrule with precision. Epoxy or adhesive is applied in controlled amounts to secure the fiber, avoiding air bubbles that can degrade optical performance. The connector is then crimped to hold the fiber and strength members firmly in place. Proper alignment ensures minimal insertion loss and stable return loss .

Step 3: Epoxy Curing and Polishing...

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Contact Us

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