

Article Overview

A 48-core ODF is a modular, high-density optical distribution frame designed for efficient fiber termination, splicing, and distribution in telecom, data center, and FTTH networks.

Overview

A 48-core ODF serves as a central point for terminating and distributing optical fibers, supporting up to 48 fiber cores in a single unit. It integrates fiber termination, splicing, storage, and distribution into a compact, standardized frame, ensuring low insertion loss, stable signal transmission, and efficient network maintenance . These units are widely used in central offices, data centers, telecommunication rooms, and enterprise optical networks .

Key Features

- o High-Density Capacity: Supports up to 48 fiber cores, suitable for medium-density distribution in access and aggregation layers .
- o Adapter Types: Commonly equipped with SC/UPC or LC duplex adapters, ensuring precise fiber alignment and low optical loss .
- o Rack Compatibility: Standard 19-inch or 23-inch rack-mountable designs, often with 1U or 2U height, allowing seamless integration into telecom cabinets .
- o Modular Structure: Many ODFs feature cassette-based or pull-out drawer designs, enabling flexible configuration, easy expansion, and simplified maintenance .
- o Cable Management: Includes bend-radius protection, clear routing paths, and front/rear access, reducing fiber stress and facilitating quick installation and maintenance .
- o Durable Construction: Metal enclosures with surface treatment provide corrosion resistance and long-term operational stability .

Applications

- o FTTH Networks: Ideal for fiber-to-the-home deployments, supporting splicing and distribution of subscriber lines .
- o Data Centers: Provides high-density fiber management for aggregation and core layers, supporting 400G/800G fabrics and Wi-Fi 7 backhaul .
- o Telecom Rooms: Centralized fiber termination and distribution for mobile base stations, enterprise networks, and remote modules .

Advantages



48-core optical fiber distribution unit

- o Efficient Maintenance: Sliding drawers and modular cassettes allow technicians to access connections without disrupting other fibers .
- o Scalability: Modular design supports future network expansion and flexible adapter configurations .
- o Reliable Performance: Ensures low insertion loss, stable optical alignment, and protection against fiber damage .

Summary

The 48-core ODF is a versatile and reliable solution for modern optical networks, combining high-density fiber management, modularity, and ease of maintenance. Its design supports both current and future network requirements, making it suitable for telecom operators, data centers, and enterprise optical systems .

High-Density Fiber Optic Distribution Solution Telhwa's FTTH 48 Core Fiber Access Terminal Box delivers exceptional port density

It is suitable for optical fiber wiring management in communication equipment rooms, data centers, and 5G BBU aggregation

Housing up to 48 cores, it offers a structured and accessible way to organize and protect your optical fiber connections. The choice of

48 Core LC FC SC ST ODF Optical Distribution Frame rack mount 19" Fiber Optic Management Unit
Width: 20.00 (in) Height: 6.00

Unleash the Power of Perfect Optics - Explore JUNPU's ODF-48 Distribution Frame! Get Unbeatable Deals on Optical Frames

Developed by Fenxi Optoelectronics Technology, this ODF integrates fiber termination, splicing, storage, and distribution into a

Optical Fiber Distribution Box 32 or 48 Core Total enclosed structure. Material: ABS,wet-proof?water-proof?dust-proof?anti

ODF 48 Core is a high-density fiber optic distribution frame designed to meet the ever-increasing demands

48 Port Fiber Optic ODF 48 Port Fiber Optic ODF The 48 port fiber optic ODF is with 4 sliding and distribution panel in the body, it

An optical distribution frame (ODF) is a frame used to provide cable interconnections between

48-core optical fiber distribution unit

The 48-Core Fiber Terminal Box is a versatile, high-capacity solution for FTTx applications, offering secure splicing, distribution, and

Product Details The 48-Core ODF is a modular and highly flexible optical distribution frame,

FX Indoor OM4 Distribution Tight Buffer 48 Fibers OFNR Sub-Units (12F) Aqua Jacket

UnitekFiber offers a variation of ODF optical fiber distribution frames, such as 24 cores, 36 cores, 48 cores, 72 cores, 96 cores and

Fiber Management Tray also called ODF Distribution Box, Integrated Splicing and Distribution ODF. It is mainly used for cable inlet,

Optical Distribution Frame (ODF) is used to provide cable interconnections between

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