

Article Overview

48-core optical cables are high-capacity fiber optic cables designed for long-distance, high-bandwidth communication, available in single-mode or multi-mode, armored or unarmored, and suitable for aerial, duct, or direct burial applications.

Types of 48-Core Optical Cables

1. OPGW (Optical Ground Wire) 48-Core OPGW cables combine lightning protection and optical communication in one unit, typically installed on high-voltage transmission lines. The 48-core configuration supports smart grid solutions and long-distance data transfer. They can be customized with different fiber types (e.g., G.652D, G.655), outer sheaths, and armor layers. Construction options include aluminum-clad steel for lightweight, cost-effective installations or stainless steel tubes for enhanced mechanical protection . 2. Steel-Armored Multi-Mode 48-Core (OM3 50/125u) These cables feature single or multi-tube designs with steel armor and a single jacket, providing durability and protection against external factors. OM3 MultiMode fibers support high bandwidth and long-distance transmission, making them suitable for data centers, industrial networks, and high-capacity telecommunications infrastructure. They are flame retardant, RoHS compliant, and sold in standard reel lengths . 3. GYTS 48-Core Fiber Optic Cable GYTS cables are outdoor, loose-tube fiber optic cables with steel tape armor and polyethylene sheaths, ideal for duct, aerial, or direct burial applications. They offer excellent mechanical protection, moisture resistance, and stable performance using single-mode fibers (G.652D) or bend-insensitive fibers (G.657A1). Typical attenuation is ≤ 0.36 dB/km at 1310 nm and ≤ 0.22 dB/km at 1550 nm, making them suitable for long-distance, high-bandwidth projects . 4. Dielectric Loose Tube 48-Core Cables These cables use a non-metallic central strength member (e.g., FRP) with water-resistant filling compounds and Kevlar reinforcement. They are designed for environments where metallic components are undesirable, providing flexibility and protection against water ingress .

Key Features and Applications

- o High Fiber Count: 48 cores allow for large-scale data transmission and network expansion.
- o Mechanical Protection: Options include steel armor, aluminum-clad steel, or stainless steel tubes.
- o Environmental Resistance: Suitable for aerial, duct, or direct burial installations with moisture and rodent protection.
- o Performance: Single-mode fibers for long-distance communication; multi-mode fibers for high-bandwidth local networks.
- o Standards Compliance: Most designs meet IEC 60794 and IEEE 1138 standards. 48-core optical cables are widely used in telecommunications backbones, smart grid networks, industrial networks, and data centers, providing reliable, high-capacity communication infrastructure .



Special optical cable with 48 cores

Sumitomo 48-core fiber optic cable is a completely standard cable that is suitable for terrestrial

ADSS optical fiber cable 48 fiber cores as well known as All-dielectric self-supporting cable developed to

Huadong Cable Group as a special GYTS Fiber Optic Cable factory in China, We not only have over 30 years of production

This document provides specifications for two types of OPGW fiber optic cables: a 24 core cable and a 48 core cable. Both cables

Universal (Indoor/Outdoor) dry core optical fiber Multi Loose Tube cable with glass yarns as strength member, Corrugated Steel

TMT GLOBAL fiber optic cable Multi Core single mode Armored 48 core G652D TMT GLOBAL fiber optic cable Multi Core single

ELV CABLE 48 core armored Fiber Optic Cable G652d Single mode with a connector pre terminated on one end and exposed fiber

48 Fiber Fiber Optic Cables are available at Mouser Electronics. Mouser offers inventory, pricing, & datasheets for 48 Fiber Fiber

48 Fiber Breakout Cables 48 fiber breakout cables reduce the overall cost and clutter associated with large quantities of individual

HES 48 Core and HES 96 Core fiber optic cables are sold as 2000m reels. Features: OM3 MultiMode

fiber optic cable 48 core, single mode Armored Fiber optic cable GYTY53, 2~144 fibers, central strength member (steel), jelly filled,

These Optical fibre cables meet both Internal and External Environmental and flame-retardant industry standards with 48F-288F

TMT GLOBAL uae f48 core fiber optic cable Multi Core single mode Armored G.652D TMT GLOBAL

The fibre cable shall contain 48 to 144 fibres and have an armoured loose tube construction. It shall be suitable for indoor

Mouser offers inventory, pricing, & datasheets for 48 Fiber Fiber Optic Cables.



Special optical cable with 48 cores

ADSS single mode fiber optic cable 48 cores This single-mode fiber optic cable is an all-dielectric aerial cable that can be used in

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