

Article Overview

The typical diameter of a 24-core ADSS optical fiber cable ranges from approximately 10 mm to 12 mm, depending on the manufacturer and sheath type.

Cable Structure and Construction

A 24-core ADSS cable consists of 24 single-mode optical fibers (usually ITU-T G.652.D) arranged in loose tubes, with 6 fibers per tube. The loose tubes are filled with a water-blocking compound to prevent moisture ingress. The tubes are reinforced with aramid (Kevlar) yarns for tensile strength, and the cable is completed with a polyethylene (PE) outer sheath or an anti-tracking (AT) sheath for high-voltage applications .

Mechanical and Environmental Features

- o Self-supporting design: Can be installed on overhead power lines without metallic support.
- o Lightweight and small diameter: Reduces ice, wind, and tower load impact.
- o Tensile strength: Enhanced by aramid yarns, allowing spans exceeding 1000 meters.
- o Environmental suitability: Resistant to UV, water, and temperature variations, suitable for high-voltage transmission lines and aerial installations .

Diameter Considerations

The exact diameter may vary slightly depending on:

- o Sheath type: Standard PE vs. anti-tracking (AT) sheath for higher voltage lines.
- o Reinforcement layers: Additional aramid yarns for longer spans or higher mechanical load.
- o Manufacturer specifications: Some manufacturers may offer slightly thicker or thinner cables to meet project requirements . For most 24-core ADSS cables, the outer diameter is generally around 10-12 mm, which is suitable for standard aerial installation hardware and supports. For precise installation planning, it is recommended to consult the manufacturer's datasheet for the specific cable model being used .

Summary

A 24-core ADSS optical fiber cable is a compact, self-supporting, and high-strength cable designed for aerial deployment on power lines. Its diameter typically ranges from 10 mm to 12 mm, with variations depending on sheath type, reinforcement, and manufacturer design. This small diameter, combined with lightweight construction, ensures minimal mechanical load on towers while maintaining excellent tensile and environmental performance.

AdSS24 core optical cable diameter

Non slotted rod structure, like center core cable, and Rollable Ribbon make the cable size smaller and save space comparing to the

What Is ADSS-D Double Layer Aerial Optic Fiber Cable 12-24-48-96-144 Core fibres in jelly-filled loose tubes, laid up

ADSS 24F 100M SPAN SM G652D Single Jacket Fiber Optical Cable offered by China manufacturer Zion

This document provides specifications for an ADSS cable including: - The cable has 24 cores with 2 tubes

CUST TP-ADSS-24C-LongSpan-1-12535- 32-004 -202002-3-A - Free download as PDF File (.pdf), Text File (.txt) or

1. General 1.1 The specification covers the construction and properties of single mode optical fiber cable.

The ADSS optical cables are also available with a proprietary track-resistant polyethylene (TRPE) jacket suitable for

Cable containing up to 4 - 24 optical fibers in water blocked loose tube. Taped, corrugated steel tape armored (STA); polyethylene

PE single jacket with additives makes a resistant, durable and easy to strip cable, providing superior protection against UV radiation,

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DESCRIPTION / APPLICATION - LINK Outdoor/Indoor, fiber optic cable special design used for campus backbone (inter

Applications The "All Dielectric Self-Supporting (ADSS)" cables are designed for aerial self-supporting applications at short,

The optical fiber cable contains 24 cores (6cores/tube) single mode ITU-T G.652.D fiber. The optical fiber cable shall be according to

Application Adopted to indoor or outdoor distribution; Small cable size, light weight; With excellent waterproofing performance. Kevlar

1.3 Life Time Optical fibre cables supplied in compliance with this specifications is capable to withstand the



AdSS24 core optical cable diameter

typical service condition

Explore everything about ADSS fiber optic cables including the full form, core types (12/24/48 core), major brands, specifications,

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