

What are the metal fittings used in ADSS optical cables

Article Overview

ADSS optical cables use metal fittings such as tension clamps, suspension clamps, dead-end clamps, and preformed wire assemblies to secure, anchor, and protect the cables.

Key Types of Metal Fittings

o Tension Clamps (Dead-End Clamps)

- o Used at terminal towers, tension towers, or points where the cable changes direction.
- o Composed of pre-twisted inner and outer wires, U-shaped rings, heart-shaped rings, and connection plates to grip the cable without damaging the fibers .
- o Designed to handle mechanical loads and maintain cable tension, often achieving over 95% of the cable's ultimate tensile strength .

o Suspension Clamps

- o Installed along straight sections of the cable to support it without tension.
- o Typically made of aluminum alloy or galvanized steel, sometimes combined with UV-resistant polymer inlays to prevent abrasion .
- o Suitable for line angles up to 30° and spans ranging from 100 to 600 meters depending on design .

o Preformed Strain Sets / Pre-twisted Wire Assemblies

- o Used for anchoring and fixing ADSS cables on terminal, corner, or tension towers.
- o Include inner and outer pre-twisted wires and pull rings, distributing stress evenly to prevent fiber damage .

o Guide Wire Clips and Shock Absorbers

- o Protect the cable from vibration, wind-induced oscillation, and mechanical shocks.
- o Often made of galvanized steel or aluminum alloys to ensure long-term durability .

o Down Conductor Clamps and Pole Hanging Clamps

- o Secure the cable to poles or towers, maintaining proper alignment and preventing slippage.
- o Can include stainless steel bands or aluminum-clad steel wires for corrosion resistance .

Materials and Durability

- o Aluminum alloys: Lightweight, corrosion-resistant, and suitable for long-term outdoor exposure.
- o Galvanized steel: Provides high mechanical strength and resistance to environmental stress.
- o Stainless steel: Used for bands and fasteners to prevent corrosion.
- o UV-resistant polymers: Often combined with metal components to protect the cable jacket from abrasion and UV damage .

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Function and Importance

Metal fittings in ADSS cables are critical for:

- o Mechanical support: Ensuring the cable remains securely anchored and tensioned.
 - o Cable protection: Distributing stress evenly to prevent fiber breakage or attenuation.
 - o Environmental resistance: Withstanding wind, ice, UV radiation, and temperature fluctuations.
 - o Safety and reliability: Preventing cable slippage or failure that could disrupt telecommunications networks .
- In summary, ADSS optical cables rely on a combination of tension clamps, suspension clamps, preformed wire assemblies, and other metal fittings made from durable materials like aluminum alloys and galvanized steel to ensure secure, long-lasting, and safe overhead installations.

Explore the essential ADSS cable installation accessories for safe and reliable overhead fiber optic deployment. [Learn](#)

All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable Hardware delivers high-performance engineering, reliability and simplified

ADSS fiber optic cable hardware is used in telecommunication and power utilities. As long as these installations have the ADSS

What is an ADSS Cable? ADSS (All-Dielectric Self-Supported) is a kind of fiber optic cable that does not include any

In the ever-evolving landscape of telecommunications, understanding the various types of cables is crucial for efficient connectivity.

Explore ADSS/OPGW Fittings: Guide to types, installation, and top hardware like tension clamps & dampers from

For ADSS optical cables, the matching hardware mainly includes tension clamps, suspension clamps, down conductor

How to Choose the Right ADSS Cable Accessories and Hardware? Down Lead Clamp For ADSS Cable On Tower or

ADSS cable accessories are simply fittings that are used to fix the ADSS cables to the poles so that the cables

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can perform their

The document discusses specifications for ADSS aerial cable and accessories used in overhead power lines, including: 1.

Not the Cheapest Per Meter -- But Often Cheaper Overall ADSS cable can look pricey on a per-meter basis

All Dielectric Self Supporting cable or more commonly referred to as ADSS cable is a type of fiber optic cable that is used in aerial

ADSS (All-dielectric Self-supporting) optical fibre cable is a type of self-supporting aerial fiber optic cable designed for

OPTI-LOOP™ DIRECT ATTACH FOS The Opti-Loop™ ADSS Direct Attach unit uses the patented bowtie double deadend

The fittings of ADSS optical cable mainly include: 1) tension fittings, 2) suspension fittings, 3) shock absorbers, 4)

When installing ADSS optical cables, you need various hardware fittings including ADSS tension (or anchor) clamps

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