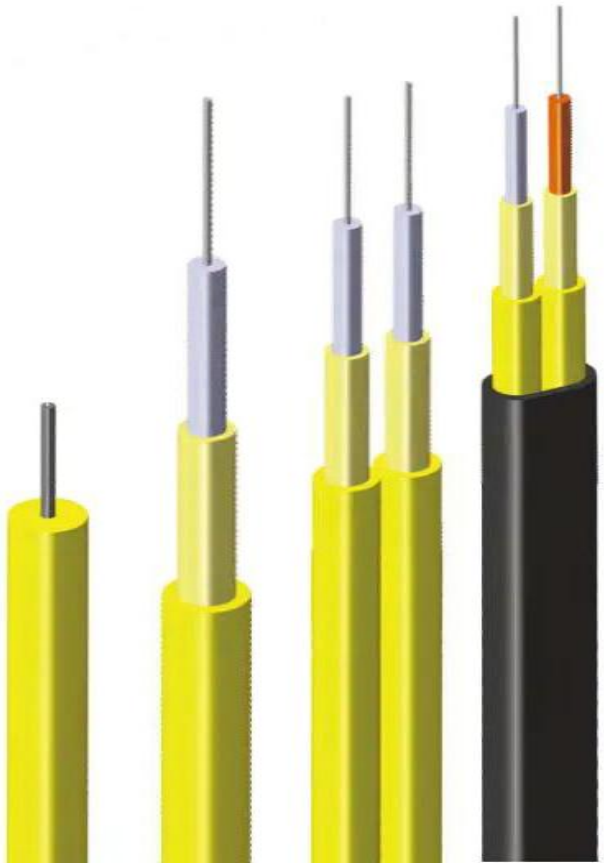
NOAKR GROUP

Indoor Multi-fiber Optical Distribution Cables Technical Specification



1. Overview

This specification covers four types of indoor multi-fiber optical distribution cables. These cables are designed for high-density, multi-core, and flexible deployment scenarios. They are applicable to data centers, FTTH networks, smart buildings, and industrial automation systems. They serve as basic components for backbone optical cabling, inter-device patching, MPO pre-terminated connector systems, and modular fiber distribution networks.

1.1 Certifications

The cables comply with international standards including UL, ETL, CE, CPR, and RoHS.

2. Product Classification & Technical Parameters

Product Name	Fiber Type	Core Count	Fiber Structure	Strength Member	Jacket Material	Jacket Color	Application Description
Standard Indoor Tight-buffered Cable	G.657.A2	2–24 cores	900μm Tight Buffered	Aramid Yarn (Kevlar)	LSZH	Orange	General indoor backbone cabling; Patch panel interconnection
Mini Indoor Distribution Cable	G.657.A2	2–24 cores	600μm Tight Buffered	Aramid Yarn	LSZH	Orange	High-density cabling; Micro MTP pre-terminated systems
Breakout Indoor Cable	G.657.A2	2–24 cores	Individually jacketed (2.0mm or 3.0mm)	Multiple Aramid + Sub-jackets	LSZH	Orange	Direct LC/SC termination; Patching or equipment runs
Ribbon Indoor Fiber Cable	G.657.A2	12–144 cores	12-core or 24-core ribbon structure	Aramid Yarn + Central Member	LSZH	Orange	High-capacity splicing; MPO/MTP trunk cabling

3.Key Characteristics of Each Product Type

3.1 Standard Indoor Tight-buffered Cable

•Adopts 900μm tight-buffered fibers for reliable fiber protection.

•Features compact size, excellent bending and torque performance.

•Configurable in 4/6/8/12/24 core options.

•Easy to strip, terminate and install.

•**Applications**: Building backbone cabling; Indoor riser cables for MTP arrayed waveguides; Intermediate levels cabling.

3. 2 Mini Indoor Distribution Cable

•Uses 250μm bare fibers or 600μm buffered fibers.

•Has smaller diameter, lighter weight and higher flexibility.

•Perfectly compatible with MTP/MPO pre-connectorized systems.

•Suitable for narrow passages such as ducts and raceways.

•**Applications**: High-density data center cabling; Modular connectivity systems; Fiber aggregation and splitting nodes.

3.3 Breakout Indoor Cable

•Each single fiber is jacketed with 2.0mm or 3.0mm cassettes.

•Can be directly connected with standard SC/LC connectors.

•Enables easy fan-out without the need for exterior fan-out bundles or pigtails.

•**Applications**: Point-to-point links between devices; Inter-floor cabling inside buildings; MPO/MTP transfer of multi-core fiber.

3.4 Ribbon Indoor Fiber Cable

•The fiber ribbon consists of 12 or 24 fibers arranged in parallel.

•Supports mass ribbon fan-out with ribbon splice joiners.

•Improves installation efficiency, especially for high-core-count cabling projects.

•Complies with MPO/MTP interconnect systems.

•**Applications**: High-speed backbone cabling in large multi-floor buildings; Optical path connection between core switches and transmission equipment; Ribbon-based MPO/MTP structured cabling.

4. Customization Options

1. **Core Configuration**: 4–144 fiber count options are available.
2. **Jacket Colors**: Customizable colors including Dark Red, Olive Green, Brown, Gray, Orange.
3. **Printing & Branding**: Supports special laser printing, logo customization and meter marking.
4. **Packaging**: Options include wooden reels, plastic spools and coil-packed solutions.
5. **Connector Termination**: Optional MPO, SC, LC, FC connectors as required.

5. Supply Specifications

- **MOQ**: 30KM
- **Delivery Time**: Normally 25 working days; Custom orders can be delivered within 7–15 days.
- **Port of Loading**: SHANGHAI