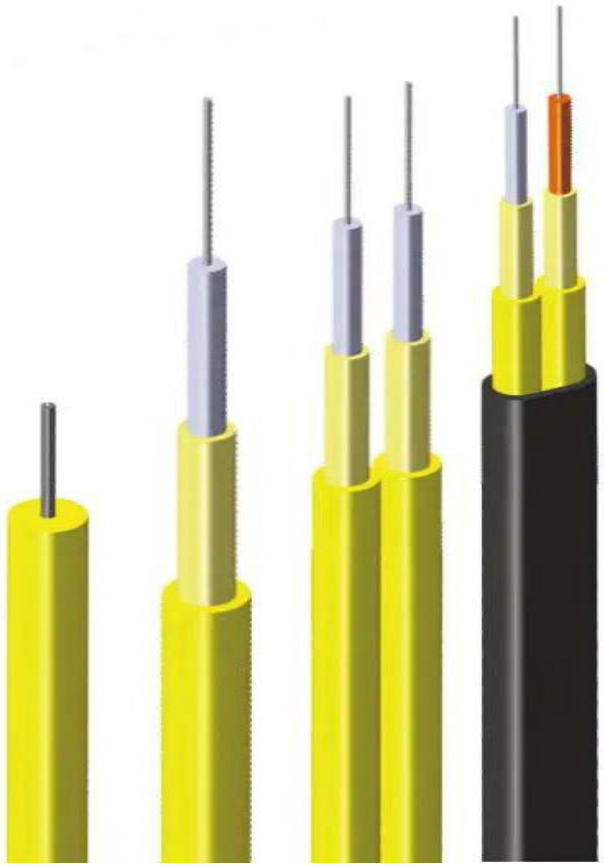
NOAKR GROUP

Indoor Tight-Buffered Optical Cables Technical Specification



1. Product Overview

Indoor tight-buffered optical cables feature 900μm tight-buffered fibers as the core structure, supplemented by Kevlar aramid yarns (in specific types) and flame-retardant jackets. Compared with outdoor loose-tube cables, they offer superior flexibility and a more compact design, making them the preferred choice for indoor applications. These cables are characterized by easy stripping, excellent flexibility, and universal installation, suitable for various amplification scenarios in communication and networking systems.

1.1 Key Certifications

UL, ETL, CE, CPR, RoHS, REACH, ISO9001

1.2 Basic Application Scenarios

- Connections between distribution frames and equipment (patch cords)
- In-house connectivity of devices (e.g., ONU, transceivers)
- Drop wiring for FTTH (Fiber to the Home) to provide line connections to residences
- Fabrication of fiber pigtails and patch cords

2. Product Classification & Technical Parameters

2.1 Tight-Buffered Fiber

Parameter	Specification
Fiber Type	G.657.A1/A2, G.652.D
Strength Member	None / Kevlar
Jacket Type	Optional
Typical Diameter	0.9 mm (bare fiber)
Structure	900μm tight-buffered fibers; outer coat available or bare as needed
Advantages	Simple for fusion or mechanical splicing, easy handling and wrapping
Application Highlights	Pigtails, patch cords, splicing, short-distance indoor connections

2.2 Simplex Round Indoor Cable

Parameter	Specification
Fiber Type	G.652.D
Strength Member	Kevlar Yarn
Jacket Type	LSZH / PVC (flame-retardant)
Typical Diameter	2.0 / 3.0 mm
Structure	One 900μm tight-buffered fiber reinforced with Kevlar strength members and flame-retardant sheath
Advantages	High reliability, low smoke, LSZH compatible with standard connectors
Application Highlights	Indoor patch cords, termination wiring, device-to-device connections, patch panels, FTTH, intelligent building wiring

2.3 Standard Parallel Duplex Flat Indoor Cable (Type A)

Parameter	Specification
Fiber Type	G.657.A2
Strength Member	None
Jacket Type	LSZH (flame-retardant)

Typical Diameter	2.0x3.0 mm
Structure	Two equal lengths of 900μm tight-buffered fibers with a flat LSZH jacket or surrounded by an outer jacket
Advantages	Ideal for flat surface layouts, easy installation, maintains flexibility
Application Highlights	Connections for optical transceivers, ONU devices, duplex communication modules

2.4 Enhanced Duplex Flat Indoor Cable (Type B)

Parameter	Specification
Fiber Type	G.657.A2
Strength Member	FRP / Steel Wire
Jacket Type	LSZH (flame-retardant; available in black and white)
Typical Diameter	2.0x5.0 mm
Structure	Fibers and FRP/Steel wire as strength components, protected by a flat LSZH jacket
Advantages	Enhanced tensile and compression strength, suitable for longer connections and complex routing
Application Highlights	Building backbone extension, splitter connections, indoor FTTH systems requiring higher mechanical durability

3. Environmental & Installation Requirements

3.1 Temperature Range

- Maximum operating temperature: 70°C
- Minimum operating temperature: -20°C

3.2 Installation Conditions

- Flame-retardant performance compliant with relevant standards
- Suitable for in-conduit installation

4. Packaging & Customization

4.1 Packaging Options

Available in rolls, wooden spools, cartons, or pallets; can also be supplied in coils or bundled bags as specified.

4.2 Customization Services

- Length customization
- Color, printing, and labeling customization
- Jacket color printing
- Connector termination services

5. Material Sourcing

Fibers are sourced from leading manufacturers to ensure high quality and reliable performance.