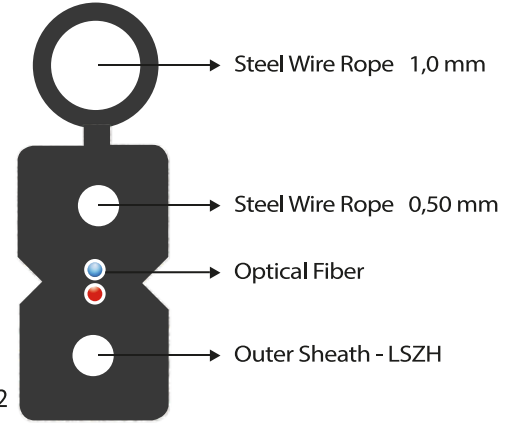


# Drop Optical Fiber Cable For FTTX Indoor / Outdoor

## Cable Construction



I-XH-T (GJYXFCH) mxn 600N IEC 60794-2  
 Fiber type SM 9/125 G.657 A1, A2  
 Attenuation at 1310 nm Max 0,40 dB/km  
 Attenuation at 1550 nm Max 0,25 dB/km

|                                 |                        | Up to<br>4 fiber                           |
|---------------------------------|------------------------|--------------------------------------------|
| Number of tube                  | Pieces                 | NA                                         |
| Number of fiber                 | Fiber                  | Up to 4 fiber                              |
| Tensile Strength (Installation) | N                      | 600                                        |
| Tensile Strength (Operation)    | N                      | 300                                        |
| Nominal Outer Diameter of cable | Nom mm D<br>Nom mm H   | (2,00 mm $\pm$ 0,1)<br>(5,20 mm $\pm$ 0,1) |
| Color of Fiber                  | .....                  | Blue, Orange, Green, Brown                 |
| Nominal Cable Weight            | Kg/km $\pm$ 2          | 18,0                                       |
| Nominal Gross Weight            | Kg/drum $\pm$ 5        | 45                                         |
| Drum Flange Diameter            | cm                     | 50                                         |
| Nominal Cable Length on Drum    | Meter/drum<br>$\pm$ %3 | 2.000                                      |

|                                 |                                           |                  |
|---------------------------------|-------------------------------------------|------------------|
| Outer Sheath Material           | LSZH/HFFR (IEC 60332-1-2)                 |                  |
| Color of Outer Sheath           | Black RAL 9005                            |                  |
| Cable Sizes                     | (2,00 mm $\pm$ 0,1) x (5,20 mm $\pm$ 0,1) |                  |
| Steel Rope Diameter             | Nom 2x0,50 mm                             |                  |
| Steel Wire Diameter for Hanging | Nom 1,00 mm                               |                  |
| Tensile Strength (Installation) | 600 N                                     | IEC 60794-1-2E1  |
| Tensile Strength (Operation)    | 300 N                                     | IEC 60794-1-2E1  |
| Crush Strength (Installation)   | 500N/100mm                                | IEC 60794-1-2E3  |
| Crush Strength (Operation)      | 80N/100mm                                 | IEC 60794-1-2E3  |
| Bending Radius (Static)         | 15 mm                                     | IEC 60794-1-2E11 |
| Bending Radius (Static)         | 30 mm                                     | IEC 60794-1-2E11 |
| Drum Material                   | Poly-wood Drum                            |                  |
| Temperature Cycling             | -30 / +70°C                               | IEC 60794-1-2F1  |
| Operation Temperature           | -20 +60°C                                 | IEC 60794-1-2F1  |
| Installation Temperature        | -20 +60°C                                 | IEC 60794-1-2F1  |

## Cable Characteristics

- Simple structure, light weight and high tensile strength of cable, FTTX outdoor application
- Novel groove design, easy strip and splice, simplified installation and maintenance, higher tensile strength.
- Suitable as cable extending from outdoor (as aerial cable) to indoor/outdoor
- Low smoke, zero halogen and flame retardant sheath, environment and friendly, good safety

## Length marking on the cable

The following design shall be applied in a continuous row to the outer sheath.

- Manufacture Name
- Year of Manufacture
- Cable Identification
- Fiber Type
- Outer sheath material
- Marks of Meter that is indicating the length ZZZZ meter

**E.g. TURKU AZ CABLE 2025 Drop Optical Cable 1x1 SM G.657 A2 LSZH 0000 meter**

## Delivery Length

Standard reel length is 2.000 meter  $\pm 5\%$  with poly-wood drums, other delivery length is also possible upon request.

## Cable Life Time

Designed cable has a minimum 25 years' service life time, if the cable is correctly installed. The cables are under our guarantee for 5 (five) years caused by the raw material or manufacturing defects.

## TECHNICAL SPECIFICATION FOR SINGLE MODE OPTICAL FIBER (G.657 A2.)

### Optical Specifications

|             |                  |                 |
|-------------|------------------|-----------------|
| Attenuation | @1310 nm:        | Max. 0,35 dB/km |
|             | @1550 nm:        | Max. 0,21 dB/km |
|             | @1625 nm:        | Max. 0,22 dB/km |
|             | @1383 $\pm$ 3 nm | Max. 0,33 dB/km |

Bending induced attenuation

| <u>Mandrel radius</u> | <u>Number of Turns</u> | <u>wavelength</u> | <u>Attenuation</u> |
|-----------------------|------------------------|-------------------|--------------------|
| 7,5 mm                | 1                      | 1550              | Max 0,50           |
| 7,5 mm                | 1                      | 1625              | Max 1,0            |
| 10 mm                 | 1                      | 1550              | Max 0,10           |
| 10 mm                 | 1                      | 1625              | Max 0,20           |
| 15 mm                 | 10                     | 1550              | Max 0,03           |
| 15 mm                 | 10                     | 1620              | Max 0,1            |

|                                 |                      |
|---------------------------------|----------------------|
| Cable Cut-off Wavelength        | $\leq 1260$          |
| Chromatic Dispersion at 1550 nm | $\leq 18$ (ps nm/km) |

|                                           |                                       |
|-------------------------------------------|---------------------------------------|
| Zero Dispersion Wavelengths               | 1300 - 1324 nm                        |
| Zero Dispersion slope                     | $\leq 0,092$ ps/(nm <sup>2</sup> .km) |
| Polarization Mode Dispersion Coefficient: | $\leq 0,2$ ps/ rkm                    |
| Fiber PMD link de sign value              | $\leq 0,08$ ps/ rkm                   |

### Geometrical Specifications

|                                          |                                |
|------------------------------------------|--------------------------------|
| Mode Field Diameter at 1310 nm:          | 8,6 $\mu$ m $\pm$ 0,4          |
| Cladding Diameter:                       | 125 $\mu$ m $\pm$ 0,7 $\mu$ m  |
| Core/Cladding Concentricity Error:       | $\leq 0,5$ $\mu$ m             |
| Cladding Non - Circularity:              | $\leq 0,7\%$                   |
| Coating Diameter colored                 | 250 $\pm$ 15 $\mu$ m           |
| Coating/Cladding Non - Circularity Error | $\leq 12\%$                    |
| Fiber proof test level                   | $\geq 100$ kpsi (1,0 % strain) |