

# FTTH CABLE PRODUCT

FTTH STAND DROP WIRE ROUND CABLE SM (SDR)



## CHARACTERISTIC

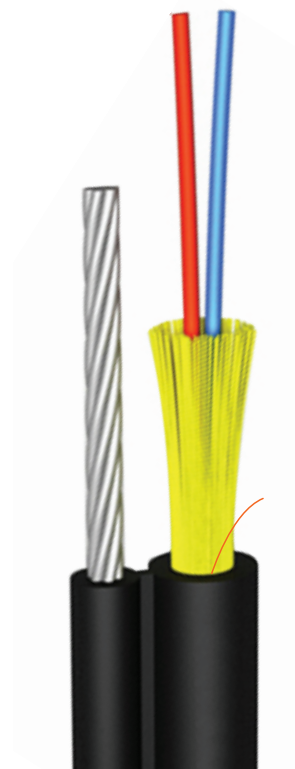
- The structure is 1-4 core fibers.
- Standard steel wire
- Tight buffer
- Optical fiber
- Aramid yarn/E-Glass yarn
- Outer jacket HDPE (LSZH)
- Rip cord
- Water Blocking Tape
- Messenger wire 7 x 0.4 mm (1.2mm.)

## PROPERTIES

- Excellent performance
- Low insertion loss and high return loss
- High tensile strength
- Telcorda GR326, IEC, TIA/EIA standard compliant

## APPLICATION

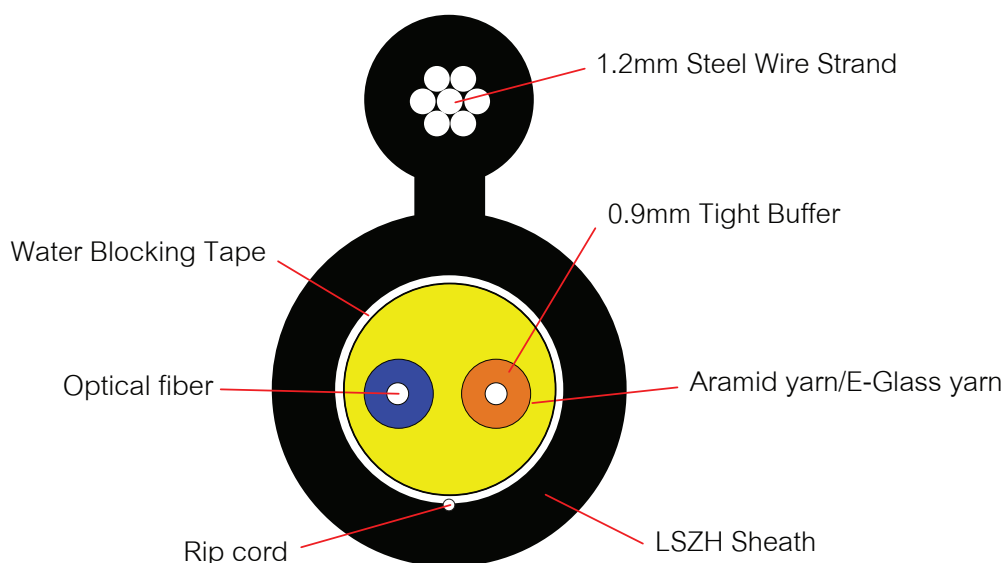
- Communication network
- Optical distribution network
- Lan system
- FTTH
- SC APC/ UPC Connector



F-FTTX -SDR-XX

## STANDARD

ANSI/TIA-568-C.3, ANSI/TIA/EIA-568-B.3, ISO/IEC 11801:2002, ANSI/ICEA 696, Telcordia (Bellcore) GR-20-CORE, ITU-T G.657A1/G.657A2 (Singlemode), ITU-T G.651 (Multimode), IEC 60332-1, IEC 60332-2& IEC 60332-3, IEC 60793/60794, ANSI/ICEA 596, EIA/TIA-455, UL, RoHS Compliant 2002/95/EC, IEEE802.3z, IEEE802.3ae, IEEE802.3(LAN, EthernetFast Ethernet, Gigabit Ethernet and 10Gigabit Ethernet 40-100 Gbps)



## CABLE CONSTRUCTION DETAIL

| ITEM           | CONSTRUCTION |
|----------------|--------------|
| FIBER COUNT    | 2            |
| CABLE DIAMETER | 3.5*6.5MM    |
| CABLE WEIGHT   | 26.0KG/KM    |

## FIBER IDENTIFICATION BUFFERE COLOR

|   |      |   |        |
|---|------|---|--------|
| 1 | Blue | 2 | Orange |
|---|------|---|--------|

## CABLE CONSTRUCTION DETAIL

| Items           | Description                               |
|-----------------|-------------------------------------------|
| Number of fiber | 2cores                                    |
| Fiber type      | SM/ G657A1/G657A2<br>Diameter: 250um ±5um |
| Tight buffer    | PVC<br>Diameter: 0.9mm                    |
| Strength member | Material kevlar                           |
| Outer sheath    | Material LSZH<br>Diameter 3.5*6.5mm       |

## GENERAL

THIS SPECIFICATIONS COVERS THE OPTICAL FIBER CABLE FOR LAYING IN INDOOR INSTALLATION. THE OPTICAL FIBER MEETS THE REQUIREMENTS OF ETISALAT SPECIFICATIONS

## CABLE MECHANICAL CHARACTERISTIC

| Items                               | Cable Diameter | Weight  |
|-------------------------------------|----------------|---------|
| 1cores                              | 3.5*6.5mm      | 23kg/km |
| 2cores                              | 3.5*6.5mm      | 26kg/km |
| Installation Temperature range      | -20 -+80°C     |         |
| Operation and transport temperature | -20 -+80°C     |         |
| Storage temperature                 | -20 -+80°C     |         |
| Min allowable Tensile strength      | Long time      | 800N    |
|                                     | Short time     | 1200N   |
| Min allowable Crush load (N/100mm)  | Long time      | 1000N   |
|                                     | Short time     | 2200N   |
| Min Bending Radius(mm)              | operation      | 15D mm  |
|                                     | installation   | 30D mm  |

## ENVIRONMENTAL CHARACTERISTICS (1310NM, 1500NM, &1625NM)

|                              |                              |       |         |
|------------------------------|------------------------------|-------|---------|
| Temperature dependence       | -60°C to +85°C               | ≤0.05 | [db/Km] |
| Induced attenuation at       |                              |       |         |
| Temperature-humidity cycling | -10°C to +85°C,98°C RH       | ≤0.05 | [db/Km] |
| Induced attenuation at       |                              |       |         |
| Watersoak dependence         | 23°C for 30 days             | ≤0.05 | [db/Km] |
| Induced attenuation at       |                              |       |         |
| Damp heat dependence         | 85°C and 85°C RH for 30 days | ≤0.05 | [db/Km] |
| Induced attenuation at       |                              |       |         |
| Dry heat aging at            | 85°C                         | ≤0.05 | [db/Km] |

## CABLE MECHANICAL CHARACTERISTIC

| Characteristics                      | Conditions  | Specified Values     | Units                    |
|--------------------------------------|-------------|----------------------|--------------------------|
| Attenuation                          | 1310nm      | $\leq 0.35$          | [dB/Km]                  |
|                                      | 1383nm      | $\leq 0.35$          | [db/Km]                  |
|                                      | 1460nm      | $\leq 0.25$          | [db/Km]                  |
|                                      | 1550nm      | $\leq 0.21$          | [db/Km]                  |
|                                      | 1625nm      | $\leq 0.23$          | [db/Km]                  |
| "Attenuation vs.Wavelength           | 1285-1330nm | $\leq 0.03$          | [db/Km]                  |
| Max. $\alpha$ difference"            | 1525-1575nm | $\leq 0.02$          | [db/Km]                  |
| Dispersion coefficient               | 1285~1340nm | $\geq -3.4 \leq 3.4$ | ps/(nm×Km)               |
|                                      | 1550nm      | $\leq 18$            | ps/(nm×Km)               |
|                                      | 1625nm      | $\leq 22$            | ps/(nm×Km)               |
| Zero dispersion wavelength           |             | 1300~1324            | [nm]                     |
| Zero dispersion slope                |             | $\leq 0.092$         | ps/(nm <sup>2</sup> ×Km) |
| "PMD Maximum Individual Fibre        |             | $\leq 0.2$           | [ps/√km]                 |
| Link Design Value (M=20, Q=0.01%)    |             | $\leq 0.1$           | [ps/√km]                 |
| Typical value "                      |             | 0.04                 | [ps/√km]                 |
| Cable cutoff wavelength $\lambda$    |             | $\leq 1260$          | [nm]                     |
| Mode field diameter (MFD)            | 1310nm      | 8.4±9.2              | [nm]                     |
|                                      | 1550nm      | 9.3±10.3             | [nm]                     |
| "Effective group index of            | 1310nm      | 1.466                |                          |
| refraction (Neff)"                   | 1550nm      | 1.167                |                          |
| Point discontinuities                | 1310nm      | $\leq 0.05$          | [dB]                     |
|                                      | 1550nm      | $\leq 0.05$          | [dB]                     |
| Cladding diameter                    |             | 125.8±0.7            | [um]                     |
| Cladding non-circularity             |             | $\leq 0.7$           | [%]                      |
| Coating diameter                     |             | 245±5                | [um]                     |
| Coating-cladding concentricity error |             | $\leq 12.0$          | [um]                     |
| Coating non-circularity              |             | $\leq 6.0$           | [%]                      |
| Core-cladding concentricity error    |             | $\leq 0.5$           | [um]                     |
| Curl (radius)                        |             | $\geq 4$             | [m]                      |
| Delivery length                      |             | 2.1 to 50.4          | [km/reel]                |

## ORDER INFOMATION

| PRODUCT                            | PART NUMBER    |
|------------------------------------|----------------|
| FTTX Strand Dorp Wire Round 1 Core | F-FTTX -SDR-02 |
| FTTX Strand Dorp Wire Round 2 Core | F-FTTX -SDR-04 |
| FTTX Strand Dorp Wire Round 4 Core | F-FTTX -SDR-01 |