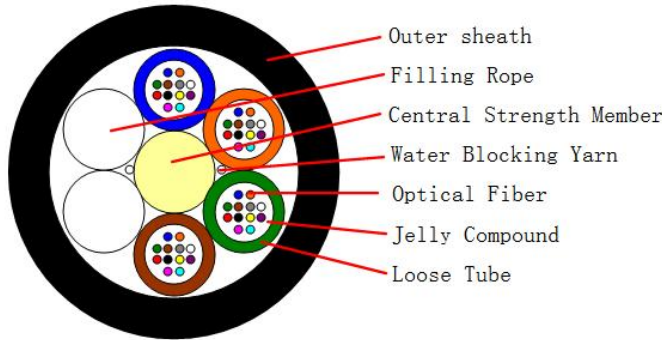




## Outdoor Fiber Optical Cable Air Blowing Micro Fiber Cable SM Stranded Loose Tube 48 96 144 Core PE

### Cable Design



### Technical data

|                                    |                       |                     |       |       |       |        |      |
|------------------------------------|-----------------------|---------------------|-------|-------|-------|--------|------|
| No. of cable                       |                       | 24                  | 48    | 72    | 96    | 144    | 288  |
| Fiber Model                        |                       | G652D               |       |       |       |        |      |
| Design(StrengthMember+Tube&Filler) |                       | 1+6                 |       | 1+8   | 1+12  | 1+9+15 |      |
| Central Strength Member            | Material              | FRP                 |       |       |       |        |      |
|                                    | Diameter (±0.05) mm   | 1.5                 |       | 2.6   | 2.6   | 3.0    |      |
| Additional Sheath                  | Material              | MDPE                |       |       |       |        |      |
|                                    | Size (±0.1) mm        | —                   |       |       | 4.5   | —      |      |
| Loose Tube                         | Material              | PBT                 |       |       |       |        |      |
|                                    | Diameter (±0.1) mm    | 1.5                 |       |       |       |        |      |
|                                    | Thickness (±0.03) mm  | 0.20                |       |       |       |        |      |
|                                    | The Max.Core NO./Tube | 6                   | 12    |       |       |        |      |
| Filler Rope                        | Material              | LDPE                |       |       |       |        |      |
|                                    | Colour                | White               |       |       |       |        |      |
|                                    | Diameter (±0.06) mm   | 1.5                 | 1.5   | —     | —     | —      | —    |
|                                    | NO.                   | 4                   | 2     | —     | —     | —      | —    |
| Additional Strength Member         |                       | Water Blocking Yarn |       |       |       |        |      |
| Outer Sheath                       | Material              | HDPE                |       |       |       |        |      |
|                                    | Thickness (±0.1) mm   | 0.5                 |       |       |       |        |      |
| Cable Diameter (±0.2) mm           |                       | 5.5                 | 5.5   | 5.5   | 6.6   | 8.5    | 10.2 |
| Cable Weight (±5.0) kg/km          |                       | 24                  | 24    | 24    | 42    | 60     | 80   |
| Attenuation                        | 1310nm                | ≤0.35dB/ km         |       |       |       |        |      |
|                                    | 1550nm                | ≤0.21dB/ km         |       |       |       |        |      |
| Allowable Tensile Strength         | Short Term            | 400 N               | 400 N | 400 N | 500 N | 500 N  | 750N |
|                                    | Long Term             | 150 N               | 150 N | 150 N | 250 N | 250 N  | 250N |
| Allowable Crush Resistance         | Short Term            | 600 (N/100mm)       |       |       |       |        |      |
|                                    | Long Term             | 200 (N/100mm)       |       |       |       |        |      |
| Min. bending radius                | Without Tension       | 10.0×Cable-φ        |       |       |       |        |      |

|                           |                       |              |
|---------------------------|-----------------------|--------------|
|                           | Under Maximum Tension | 20.0×Cable-φ |
| Temperature range<br>(°C) | Installation          | -20~+60      |
|                           | Transport&Storage     | -40~+70      |
|                           | Operation             | -40~+70      |

### Fibre Color

|       |      |        |        |        |      |       |
|-------|------|--------|--------|--------|------|-------|
| No.   | 1    | 2      | 3      | 4      | 5    | 6     |
| Color | Blue | Orange | Green  | Brown  | Gray | White |
| No.   | 7    | 8      | 9      | 10     | 11   | 12    |
| Color | Red  | Black  | Yellow | Violet | Pink | Aqua  |

### Loose Tube Color

|       |      |        |        |        |      |       |
|-------|------|--------|--------|--------|------|-------|
| No.   | 1    | 2      | 3      | 4      | 5    | 6     |
| Color | Blue | Orange | Green  | Brown  | Gray | White |
| No.   | 7    | 8      | 9      | 10     | 11   | 12    |
| Color | Red  | Black  | Yellow | Violet | Pink | Aqua  |

### The properties of single mode optical fiber (ITU-T Rec. G.652.D)

| Item   | Specification  |
|--|--|
| Fiber type   | Single mode  |
| Fiber material   | Doped silica   |
| Attenuation coefficient<br>@ 1310 nm<br>@ 1383 nm<br>@ 1550 nm<br>@ 1625 nm            | ≤ 0.36 dB/km<br>≤ 0.32 dB/km<br>≤ 0.22 dB/km<br>≤ 0.30 dB/km               |
| Point discontinuity  | ≤ 0.05 dB  |
| Cable cut-off wavelength   | ≤ 1260 nm  |
| Zero-dispersion wavelength   | 1300 ~ 1324 nm   |
| Zero-dispersion slope  | ≤ 0.092 ps/(nm <sup>2</sup> .km)   |
| Chromatic dispersion<br>@ 1288 ~ 1339 nm<br>@ 1271 ~ 1360 nm<br>@ 1550 nm<br>@ 1625 nm | ≤3.5 ps/(nm. km)<br>≤5.3 ps/(nm. km)<br>≤18 ps/(nm. km)<br>≤22 ps/(nm. km) |
| PMD <sub>Q</sub> (Quadrature average*)   | ≤0.2 ps/km <sup>1/2</sup>  |
| Mode field diameter @ 1310 nm  | 9.2±0.4 um   |

|  |                            |
|--|----------------------------|
| Core / Clad concentricity error                      | $\leq 0.5 \text{ um}$      |
| Cladding diameter                                    | $125.0 \pm 0.7 \text{ um}$ |
| Cladding non-circularity                             | $\leq 1.0\%$               |
| Primary coating diameter                             | $245 \pm 10 \text{ um}$    |
| Proof test level                                     | 100 kpsi (=0.69 Gpa), 1%   |
| Temperature dependence<br>0oC~ +70oC @ 1310 & 1550nm | $\leq 0.1 \text{ dB/km}$   |

## Sheath marking

The optical fiber drop cable shall have sequentially numbered length marking at intervals of approximately 1 meter. The starting number of ordering length for any coil shall begin with zero meter. The accuracy of the measurement of length marking shall be held within the limits of  $\pm 1\%$ .