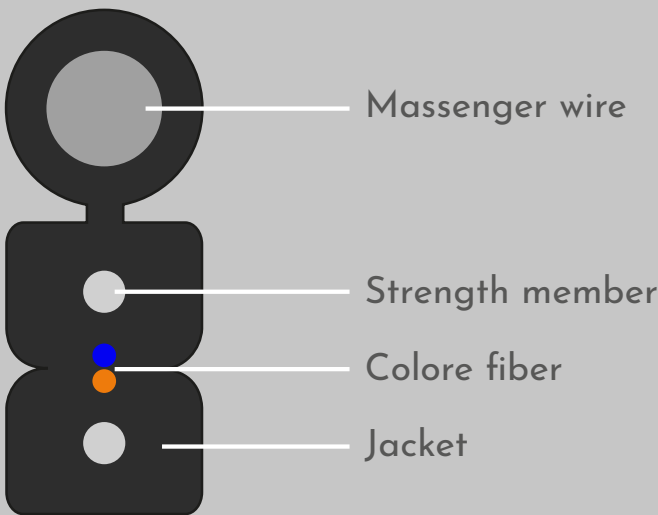




CROSS  
SECTION



DIMENSIONS AND DESCRIPTIONS OF CABLE CONSTRUCTIONS

| Item                       | Contents      | Value                   |
|----------------------------|---------------|-------------------------|
| Fiber                      | Type          | G.657A2/G.657A1         |
|                            | Diameter (mm) | 0.25                    |
|                            | Color         | Blue, orange            |
|                            | Count         | 2                       |
| Strength membe             | Material      | Phosphatized steel wire |
|                            | Diameter (mm) | 0.4±0.05                |
|                            | Count         | 2                       |
| Outer sheath               | Material      | LSZH                    |
|                            | Color         | Black                   |
| Messenger wire             | Material      | Phosphatized steel wire |
|                            | Diameter (mm) | 1.0±0.05                |
| Cable dimension (mm) (H*L) |               | (2.0 ±0.2) × (5.3 ±0.2) |
| Cable weight(kg/km) (±10%) |               | 21                      |



Optical properties of the SM fiber are achieved through a germanium doped silica based core with a pure silica cladding which meets ITU-T G657 and IEC 60793-2-50, UV curable acrylate protective coating is applied over the glass cladding to provide the necessary maximum fiber lifetime.

Geometrical, optical, and mechanical characteristics of fiber in cable as the following table:

GEOMETRY CHARACTERISTICS

| Characteristics                       | Specified values |        | Units |
|---------------------------------------|------------------|--------|-------|
| SMF type                              | G.657A2          |        |       |
| Cladding Diameter                     | 125 ± 0.7        |        | [μm]  |
| Cladding Non-Circularity              | ≤ 1              |        | [%]   |
| Coating Diameter(uncolored)           | 245 ± 10         |        | [μm]  |
| Coating Diameter(colored)             | 250 ± 15         |        | [μm]  |
| Core--Cladding Concentricity Error    | ≤ 0.5            |        | [μm]  |
| Coating--Cladding Concentricity Error | ≤ 12.5           | ≤ 12.5 | [μm]  |

OPTICAL CHARACTERISTICS

| Characteristics                | Condi<br>tions | Specified values   | Units                          |
|--------------------------------|----------------|--------------------|--------------------------------|
| SMF type                       |                | G.657A2            |                                |
|                                | 1310 nm        | ≤0.35              | [dB/km]                        |
|                                | 1383 nm        | ≤0.35              | [dB/km]                        |
|                                | 1550 nm        | ≤0.21              | [dB/km]                        |
| Attenuation before cable       | 1625 nm        | ≤0.23              | [dB/km]                        |
|                                | 1310 nm        | ≤0.4               | [dB/km]                        |
|                                | 1383 nm        | ≤0.4               | [dB/km]                        |
|                                | 1550 nm        | ≤0.3               | [dB/km]                        |
| Attenuation after cable        | 1625 nm        | ≤0.35              | [dB/km]                        |
| Zero Dispersion Wavelength(λ0) |                | 1300-1324          | [nm]                           |
| Zero Dispersion Slope(S0)      |                | ≤ 0.092            | [ps/(nm <sup>2</sup> ·k<br>m)] |
| PMDQ                           |                | ≤ 0.1              | [ps/√km]                       |
| Cable Cutoff Wavelength (λCC)  |                | ≤1260              | [nm]                           |
| Mode Field Diameter (MFD)      | 1310nm         | (8.6~9.2)<br>± 0.4 | [μm]                           |



MACRO BENDING LOSS

| Characteristics          | Condi<br>tions | Specified<br>values | Units |
|--------------------------|----------------|---------------------|-------|
| SMF type                 |                | G.657A2             |       |
| 100 Turns @ 30 mm Radius | 1550 nm        | -                   | [dB]  |
|                          | 1625 nm        | -                   | [dB]  |
| 10 Turns @ 15 mm Radius  | 1550 nm        | ≤0.03               | [dB]  |
|                          | 1625 nm        | ≤0.1                | [dB]  |
| 1 Turns @ 10 mm Radius   | 1550 nm        | ≤0.1                | [dB]  |
|                          | 1625 nm        | ≤0.2                | [dB]  |
| 1 Turns @ 7.5 mm Radius  | 1550 nm        | ≤0.5                | [dB]  |
|                          | 1625 nm        | ≤1.0                | [dB]  |
| 1 Turns @ 5 mm Radius    | 1550 nm        | -                   | [dB]  |
|                          | 1625 nm        | -                   | [dB]  |

MECHANICAL SPECIFICATION

| Characteristics                              | Condi<br>tions | Specified<br>values | Units  |
|----------------------------------------------|----------------|---------------------|--------|
| SMF type                                     |                | G.657A2             |        |
| Proof Test                                   | -              | ≥ 100               | [kpsi] |
|                                              | -              | ≥ 0.69              | [GPa]  |
| Coating Strip Force                          | Average value  | 1~5N                | [N]    |
|                                              | Peak value     | 1.0~8.9N            | [N]    |
| Transportation<br>and storage<br>temperature | -              | -40°C ~ +70°C       | [°C]   |
| Installation<br>temperature                  | -              | -5°C ~ +60°C        | [°C]   |
| Operation<br>temperature                     | -              | -40°C ~ +70°C       | [°C]   |
| Minimum Allowable<br>Bending Radius          | Static         | 20 mm               | [mm]   |
|                                              | Dynamic        | 40 mm               | [mm]   |