

## Fiber-optic cable with connector 1 core

### 1 Model Number

#### 1.1 Model Number Description (Table 1)

Example.) TFC-1C-SM-SC-SC-2m

① ② ③ ④

Table 1.

No.	Data Item	Input Number	Contents
①	Cores	1C	1-core code
②	Fiber Type	SM	Single mode (OS2)
		OM2	1G Multi mode
		OM3	10G Multi mode
		OM4	10G+ Multi mode
③	Connector Type	SC-OPEN	One sided SC
		SC-SC	Both sides SC
		SC-LC	SC-LC
		LC-OPEN	One sided LC
		LC-LC	Both sides LC
④	Length	Lm	L=Length Unit : Meter

## 2 Structure

### 2.1 Structure of Optical Fiber Core Wire (Table 2)

Table 2.

Data Item	Specification		
Types of Optical Fiber	Single mode		Multi mode
	SM type quartz glass		GI type quartz glass
	ITU-T G.657 A2		ITU-T G.651
Core diameter	-		50±3μm
Mode field diameter	1310nm	8.6±0.4μm	-
	1550nm	9.7±0.5μm	-
Clad(ding) diameter	124.5±0.7μm		125±1μm
Coating	PVC		
Coated Outer Diameter	0.9±0.1mm		

2.2 Structure of an optical fiber cord (Figure 1、Table 3)

Figure 1.

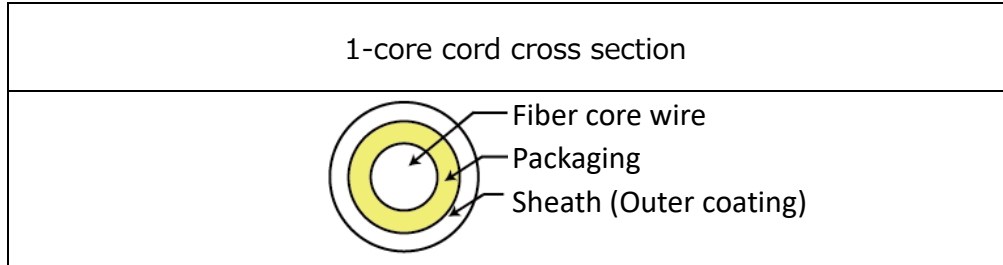
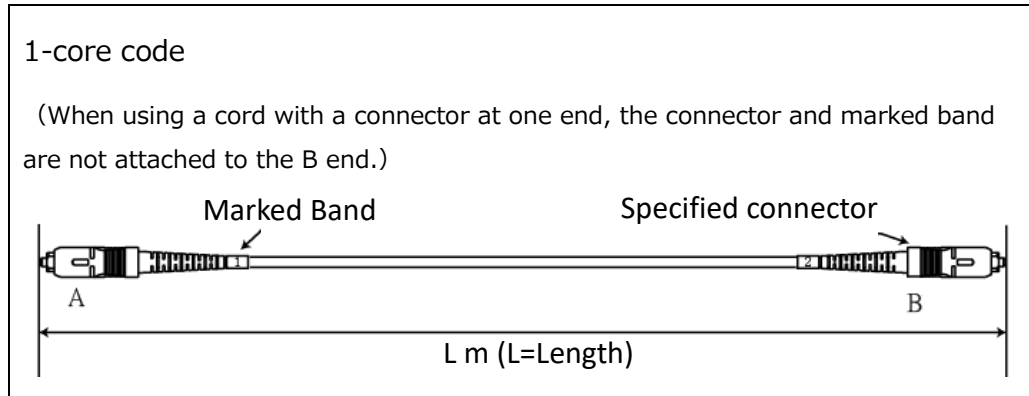


Table 3.

Data Item	Specification	
Packaging	Aramid Fiber	
Sheath Material (Outer coating)	LSZH (Low Smoke Zero Halogen)	
Outer Diameter  Dimensions	1-core code	2.0mm(±0.2mm)
Code Color	Single mode (OS2)	Yellow
	1G Multi mode (OM2)	Chartreuse green
	10G Multi mode (OM3)	Aqua color
	10G+ Multi mode (OM4)	Aqua color

### 2.3 Structure of Fiber Optic Cord with Connector (Figure 2)

Figure 2.



### 2.4 Cord lengths and tolerances (Table 4)

Table 4.

Specified length (total length)	Tolerance range
$L \leq 10\text{m}$	-0, +6cm
$10\text{m} < L$	-0, +10cm
$20\text{m} \leq L$	-0, +13cm

### 3 Characteristics

#### 3.1 Optical properties of optical fiber (Table 5, Table 6)

Table 5.

Single mode Specification	
Wavelength	Transmission loss
1260nm	0.45dB/km (Max.)
1310nm	0.40dB/km (Max.)
1383nm	0.35dB/km (Max.)
1550nm	0.30dB/km (Max.)
1625nm	0.35dB/km (Max.)

Table 6.

Multi mode Specification				
Data Item	Wavelength	OM2	OM3	OM4
Transmission loss	850nm	3.0dB/km (Max.)	3.0dB/km (Max.)	3.0dB/km (Max.)
	1300nm	1.0dB/km (Max.)	1.0dB/km (Max.)	1.0dB/km (Max.)
Transmission bandwidth	850nm	500MHz·km (Min.)	1500MHz·km (Min.)	3500MHz·km (Min.)
	1300nm	500MHz·km (Min.)	500MHz·km (Min.)	500MHz·km (Min.)
Effective bandwidth	850nm	-	2000MHz·km (Min.)	4700MHz·km (Min.)

### 3.2 Mechanical Properties of Optical Fiber Cord (Table 7)

Table 7.

Data Item		Specification	
Allowable bending radius	Fiber	Single mode	7.5mm
		Multi mode	15mm
	Code	Fixed time	Cable outer diameter 10 times or more
Max. allowable tension		When wired	100N
		Fixed time	60N
Lateral pressure strength		When wired	500N/10cm
		Fixed time	100N/10cm

### 3.3 Temperature Characteristics of Fiber Optic Cord with Connector (Table 8)

Table 8.

Data Item	Specification
Storage temperature	-20°C ~ +70°C
Operating temperature	-0°C ~ +70°C

#### 4 Connector Specifications

##### 4.1 Ferrule polishing (Table 9)

Table 9.

Connector type	Specification
SC Connector	UPC
LC Connector	UPC

##### 4.2 Connector Specifications (Table 10)

Table 10.

Data Item	Single mode		Multi mode	
	SC	LC	SC	LC
Connection loss	0.3dB (Max.)	0.3dB (Max.)	0.3dB (Max.)	0.3dB (Max.)
Return loss	50dB (Min.)	50dB (Min.)	—	—

##### 4.3 Connector, Boot color (Table 11)

Table 11.

Connector type	Single mode		Multi mode	
	Cover	Boot	Cover	Boot
SC	blue	blue	beige	beige
LC	blue	white	beige	white



#### 4.4 Connector Compliant Standards (Table 12)

Table 12.

Connector type	Standard
SC	JIS C 5973 (F04)
	IEC 61754-4
	Telcordia GR-326
LC	JIS C 5964-20
	JIS X 5150
	IEC 61754-20
	Telcordia GR-326

#### 5 Environmental Standards

RoHS Compliant

#### 6 Compliant Standards

ITU-T G.657 A2 (Single mode), ITU-T G.651(Multi mode)

Telcordia GR-326-CORE Standard