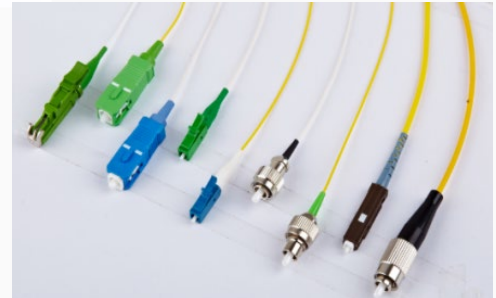


Pigtail and Patch-cord

Pigtail and patch-cord are single fiber cable or duplex fiber cable used in the connection of different equipment. Various of connectors such as FC, SC and LC are available. Strict manufacturing process ensures the reliable quality of the pre-connectorized connectors. All connectors have good environmental and mechanical performance.

Features

- Ultra-polished (UPC) and Angle-polished (APC) connectors with good performance
- Simplex and duplex are optional
- G.657A1/A2/B3 single-mode fiber are optional
- OM3/OM4 multi-mode fiber are optional
- Flame retardant grade FT4/FT6
- 2mm, 3mm, 4.8mm round drop cable and figure-8 drop cable are available
- Fiber lengths are in the range of 1~999 meters
- Various colors of cable sheath



Connector type

• Single-mode connector

Connector type	Insertion loss	Return loss	Repeatability (500 matings, additional IL)	Exchangeability (additional IL)
SC/UPC	≤ 0.3dB	≥ 50dB	≤ 0.2dB	≤ 0.2dB
SC/APC	≤ 0.3dB	≥ 60dB	≤ 0.2dB	≤ 0.2dB
FC/UPC	≤ 0.3dB	≥ 50dB	≤ 0.2dB	≤ 0.2dB
FC/APC	≤ 0.3dB	≥ 60dB	≤ 0.2dB	≤ 0.2dB
LC/UPC	≤ 0.3dB	≥ 50dB	≤ 0.2dB	≤ 0.2dB
LC/APC	≤ 0.3dB	≥ 60dB	≤ 0.2dB	≤ 0.2dB

• Multi-mode connector

Connector type	Insertion loss (50/125µm and 62.5/125µm)	Repeatability (500 matings, additional IL)	Exchangeability (additional IL)
SC/UPC	≤ 0.3dB	≤ 0.2dB	≤ 0.2dB
FC/UPC	≤ 0.3dB	≤ 0.2dB	≤ 0.2dB
LC/UPC	≤ 0.3dB	≤ 0.2dB	≤ 0.2dB

Multi-mode loss: 850nm wavelength

1. When the length is less than or equal to 50m, IL≤0.3dB;
2. When the length is greater than 50m, IL= 0.3dB+L×3.5dB/1000m

Pigtail and Patch-cord

Single fiber cable

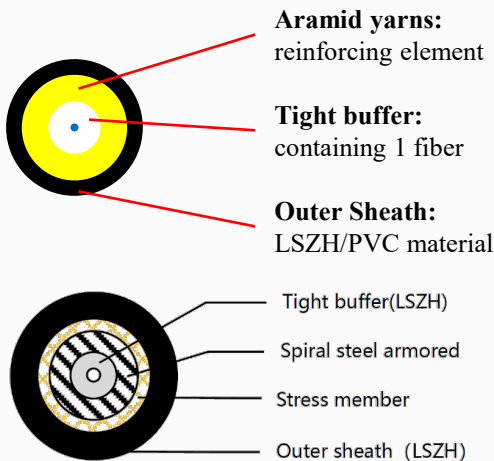
• Cable specification

Item	2mm		3mm		4.8mm	
Outer sheath material	LSZH	PVC	LSZH	PVC	LSZH	PVC
Tight buffer material	LSZH	PVC	LSZH	PVC	LSZH	PVC
Flame retardant grade	FT4	FT6	FT4	FT6	FT4	FT6
Tight buffer diameter	900μm±50μm					
Reinforcing element	Aramid yarn					
Fiber core	G.657A1/A2/B3, OM3/OM4					
Outer cable diameter	2.0±0.2mm		3.0±0.3mm		4.8±0.3mm	
Cable weight	5.0±1.5 kg/km		8.0±2.0 kg/km		20±5kg/km	

• Cable application

Item	2mm	3mm	4.8mm
Tensile performance	100N	200N	350N
Crush	50N/10cm	100N/10cm	150N/10cm
Operation temperature	-40°C ~ +70°C		
Installation temperature	-30°C ~ +60°C		
Storage/shipping temperature	-40°C ~ +70°C		
Static bending radius	10D (D is the outer diameter of cable)		
Dynamic bending radius	20D (D is the outer diameter of cable)		

• Cable structure



When the cable diameter is 2mm,3mm and 3.2mm, SC, FC and LC connectors can be used. When the cable diameter is 4.8mm, SC connectors can be used. The example shown above is the cable with SC/APC connectors.

Pigtail and Patch-cord

Duplex fiber cable

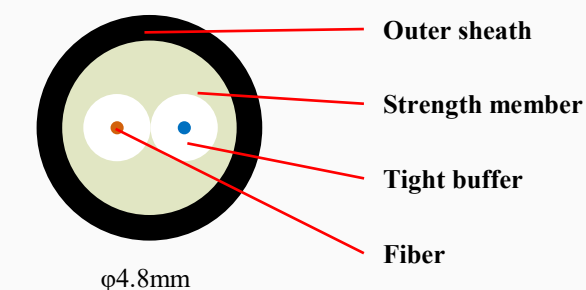
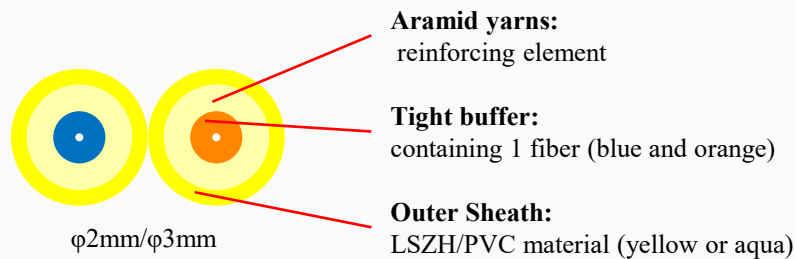
Cable Specification

Item	2mm		3mm		4.8mm
Outer sheath material	LSZH	PVC	LSZH	PVC	LSZH
Tight buffer material	LSZH	PVC	LSZH	PVC	Nylon
Flame retardant grade	FT4	FT6	FT4	FT6	FT4
Tight buffer diameter	900μm±50μm				
Reinforcing element	Aramid yarn				Water blocking glass yarn
Fiber core	G.657A1/A2/B3, OM3/OM4				
Outer cable diameter	(4.0×2.0)±0.3mm		(6.0×3.0)±0.3mm		4.8±0.2mm
Cable weight	10.0±3.0 kg/km		17.0±3.0 kg/km		27.4±5kg/km

Cable application

Item	2mm	3mm	4.8mm
Tensile performance	100N	400N	450N
Crush	50N/10cm	200N/10cm	2000N/10cm
Operation temperature	-40°C ~ +70°C		
Installation temperature	-30°C ~ +60°C		
Storage/shipping temperature	-40°C ~ +70°C		
Static bending radius	10D (D is the outer diameter of cable)		
Dynamic bending radius	20D (D is the outer diameter of cable)		

Cable structure



When the cable diameter is 2mm and 3mm, SC, FC and LC connectors can be used. When the cable diameter is 4.8mm, LC connectors can be used. The example shown above is the cable with LC/UPC connectors.

Pigtail and Patch-cord

Fiber performance

- G.657A1

Item		Parameter
Attenuation		$\leq 0.34\text{dB/km @}1310\text{nm}$
		$\leq 0.34\text{dB/km @}1383\text{nm}$
		$\leq 0.20\text{dB/km @}1550\text{nm}$
		$\leq 0.24\text{dB/km @}1625\text{nm}$
Mode field diameter (MFD)		$8.7 \pm 0.4\mu\text{m @}1310\text{nm}$
		$9.9 \pm 0.5\mu\text{m @}1550\text{nm}$
Chromatic dispersion coefficient		$\leq 3.5\text{ps}/(\text{nm}\cdot\text{km}) @1288\sim 1339\text{nm}$ (absolute value)
		$\leq 5.3\text{ps}/(\text{nm}\cdot\text{km}) @1271\sim 1360\text{nm}$ (absolute value)
		$\leq 18.0\text{ps}/(\text{nm}\cdot\text{km}) @1550\text{nm}$
Zero-dispersion wavelength		$1300\text{nm} \sim 1324\text{nm}$
Zero-dispersion slope		$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$
Cable cutoff wavelength λ_{cc} (nm)		$\leq 1260\text{nm}$
Polarization mode dispersion (PMD, for fiber on the reel)		$\leq 0.20\text{ps}/\text{km}^{1/2}$
Macrobend loss	$\Phi 30\text{mm}$, 10 turns @1550nm	$\leq 0.25\text{dB}$
	$\Phi 30\text{mm}$, 10 turns @1625nm	$\leq 1.0\text{dB}$
	$\Phi 20\text{mm}$, 1 turn @1550nm	$\leq 0.75\text{dB}$
	$\Phi 20\text{mm}$, 1 turn @1625nm	$\leq 1.5\text{dB}$
Cladding diameter		$125 \pm 0.7\mu\text{m}$
Cladding non-circularity		$\leq 0.7\%$
Core/cladding concentricity error		$\leq 0.5\mu\text{m}$
Proof test		$\geq 0.69\text{GPa}$ (100kpsi)

Pigtail and Patch-cord

- G.657A2

Item		Parameter
Attenuation		$\leq 0.34\text{dB/km @1310nm}$
		$\leq 0.34\text{dB/km @1383nm}$
		$\leq 0.20\text{dB/km @1550nm}$
		$\leq 0.24\text{dB/km @1625nm}$
Mode field diameter (MFD)		$8.7 \pm 0.4\mu\text{m @1310nm}$
		$9.9 \pm 0.5\mu\text{m @1550nm}$
Chromatic dispersion coefficient		$\leq 3.0\text{ps}/(\text{nm} \cdot \text{km}) @1285\sim 1340\text{nm}$ (absolute value)
		$\leq 18.0\text{ps}/(\text{nm} \cdot \text{km}) @1550\text{nm}$
		$\leq 22.0\text{ps}/(\text{nm} \cdot \text{km}) @1625\text{nm}$
Zero-dispersion wavelength		$1300\text{nm} \sim 1324\text{nm}$
Zero-dispersion slope		$\leq 0.092\text{ps}/(\text{nm}^2 \cdot \text{km})$
Cable cutoff wavelength λ_{cc} (nm)		$\leq 1260\text{nm}$
Polarization mode dispersion (PMD, for fiber on the reel)		$\leq 0.20\text{ps}/\text{km}^{1/2}$
Macrobend loss	$\Phi 30\text{mm}$, 10 turns @1550nm	$\leq 0.03\text{dB}$
	$\Phi 30\text{mm}$, 10 turns @1625nm	$\leq 0.1\text{dB}$
	$\Phi 20\text{mm}$, 1 turn @1550nm	$\leq 0.1\text{dB}$
	$\Phi 20\text{mm}$, 1 turn @1625nm	$\leq 0.2\text{dB}$
Cladding diameter		$125 \pm 0.7\mu\text{m}$
Cladding non-circularity		$\leq 0.7\%$
Core/cladding concentricity error		$\leq 0.5\mu\text{m}$
Proof test		$\geq 0.69\text{GPa}$ (100kpsi)

Pigtail and Patch-cord

- G.657B3

Item		Parameter
Attenuation		$\leq 0.35\text{dB/km @1310nm}$
		$\leq 0.40\text{dB/km @1383nm}$
		$\leq 0.21\text{dB/km @1550nm}$
		$\leq 0.23\text{dB/km @1625nm}$
Mode field diameter (MFD)		$8.7 \pm 0.5\mu\text{m @1310nm}$
		$9.9 \pm 0.5\mu\text{m @1550nm}$
Chromatic dispersion coefficient		$\leq 3.5\text{ps}/(\text{nm}\cdot\text{km}) @1288\sim 1339\text{nm}$ (absolute value)
		$\leq 5.3\text{ps}/(\text{nm}\cdot\text{km}) @1271\sim 1360\text{nm}$ (absolute value)
		$\leq 18.0\text{ps}/(\text{nm}\cdot\text{km}) @1550\text{nm}$
Zero-dispersion wavelength		1300nm ~ 1324nm
Zero-dispersion slope		$\leq 0.1\text{ps}/(\text{nm}^2\cdot\text{km})$
Cable cutoff wavelength λ_{cc} (nm)		$\leq 1260\text{nm}$
Polarization mode dispersion (PMD, for fiber on the reel)		$\leq 0.20\text{ps}/\text{km}^{1/2}$
Macrobend loss	$\Phi 15\text{mm}$, 1 turn @1550nm	$\leq 0.08\text{dB}$
	$\Phi 15\text{mm}$, 1 turn @1625nm	$\leq 0.25\text{dB}$
	$\Phi 10\text{mm}$, 1 turn @1550nm	$\leq 0.15\text{dB}$
	$\Phi 10\text{mm}$, 1 turn @1625nm	$\leq 0.45\text{dB}$
Cladding diameter		$125 \pm 0.7\mu\text{m}$
Cladding non-circularity		$\leq 1.0\%$
Core/cladding concentricity error		$\leq 0.5\mu\text{m}$
Proof test		$\geq 0.69\text{GPa}$ (100kpsi)

Pigtail and Patch-cord

- **OM3**

Item		Parameter
Attenuation		$\leq 2.50\text{dB/km @}850\text{nm}$
		$\leq 0.80\text{dB/km @}1300\text{nm}$
OFL bandwidth		$\geq 1500\text{MHz}\cdot\text{km @}850\text{nm}$
		$\geq 500\text{MHz}\cdot\text{km @}1300\text{nm}$
Effective modal bandwidth		$\geq 2000\text{MHz}\cdot\text{km @}850\text{nm}$
Numerical aperture		$0.200\pm 0.015\mu\text{m (}50\mu\text{m)}$
Zero-dispersion wavelength		$1295\text{nm} \sim 1340\text{nm}$
Zero-dispersion slope		$\leq 0.11\text{ps}/(\text{nm}^2\cdot\text{km})$
Macrobend loss	$\Phi 75\text{mm, }100\text{turns @}850\text{nm}$	$\leq 0.5\text{dB}$
	$\Phi 75\text{mm, }100\text{turns @}1300\text{nm}$	$\leq 0.5\text{dB}$
Core diameter		$50\pm 2.5\mu\text{m}$
Cladding diameter		$124.5\pm 1.0\mu\text{m}$
Fiber diameter with coating (uncolored)		$245\pm 10\mu\text{m}$
Cladding non-circularity		$\leq 2.0\%$
Core/cladding concentricity error		$\leq 1.5\mu\text{m}$
Cladding /coating concentricity error		$\leq 12.0\mu\text{m}$

- **OM4**

Item		Parameter
Attenuation		$\leq 2.50\text{dB/km @}850\text{nm}$
		$\leq 0.80\text{dB/km @}1300\text{nm}$
OFL bandwidth		$\geq 3500\text{MHz}\cdot\text{km @}850\text{nm}$
		$\geq 500\text{MHz}\cdot\text{km @}1300\text{nm}$
Effective modal bandwidth		$\geq 4700\text{MHz}\cdot\text{km @}850\text{nm}$
Numerical aperture		$0.200\pm 0.015\mu\text{m (}50\mu\text{m)}$
Zero-dispersion wavelength		$1295\text{nm} \sim 1340\text{nm}$
Zero-dispersion slope		$\leq 0.11\text{ps}/(\text{nm}^2\cdot\text{km})$
Macrobend loss	$\Phi 75\text{mm, }100\text{ turns @}850\text{nm}$	$\leq 0.5\text{dB}$
	$\Phi 75\text{mm, }100\text{ turns @}1300\text{nm}$	$\leq 0.5\text{dB}$
Core diameter		$50\pm 2.5\mu\text{m}$
Cladding diameter		$124.5\pm 1.0\mu\text{m}$
Fiber diameter with coating (uncolored)		$245\pm 10\mu\text{m}$
Cladding non-circularity		$\leq 2.0\%$
Core/cladding concentricity error		$\leq 1.5\mu\text{m}$
Cladding /coating concentricity error		$\leq 12.0\mu\text{m}$

Pigtail and Patch-cord

- **Cabled fiber performance (single-mode)**

Item	Parameter
Attenuation	≤0.40dB/km @1310nm
	≤0.25dB/km @1550nm

- **Cabled fiber performance (multi-mode)**

Item	Parameter
Attenuation	≤3.5dB/km @850nm
	≤1.5dB/km @1300nm

- **Sheath marking**

The outer sheath is marked in 1 meter intervals as follows (other interval is available upon request):

According to customer's requirements

Standard delivery length will be 2km.

Provided by: [Mega Hertz](#) | [800-883-8839](tel:800-883-8839) | info@go2mhz.com | www.go2mhz.com

<https://www.go2mhz.com/product/pigtail-and-patch-cord/>