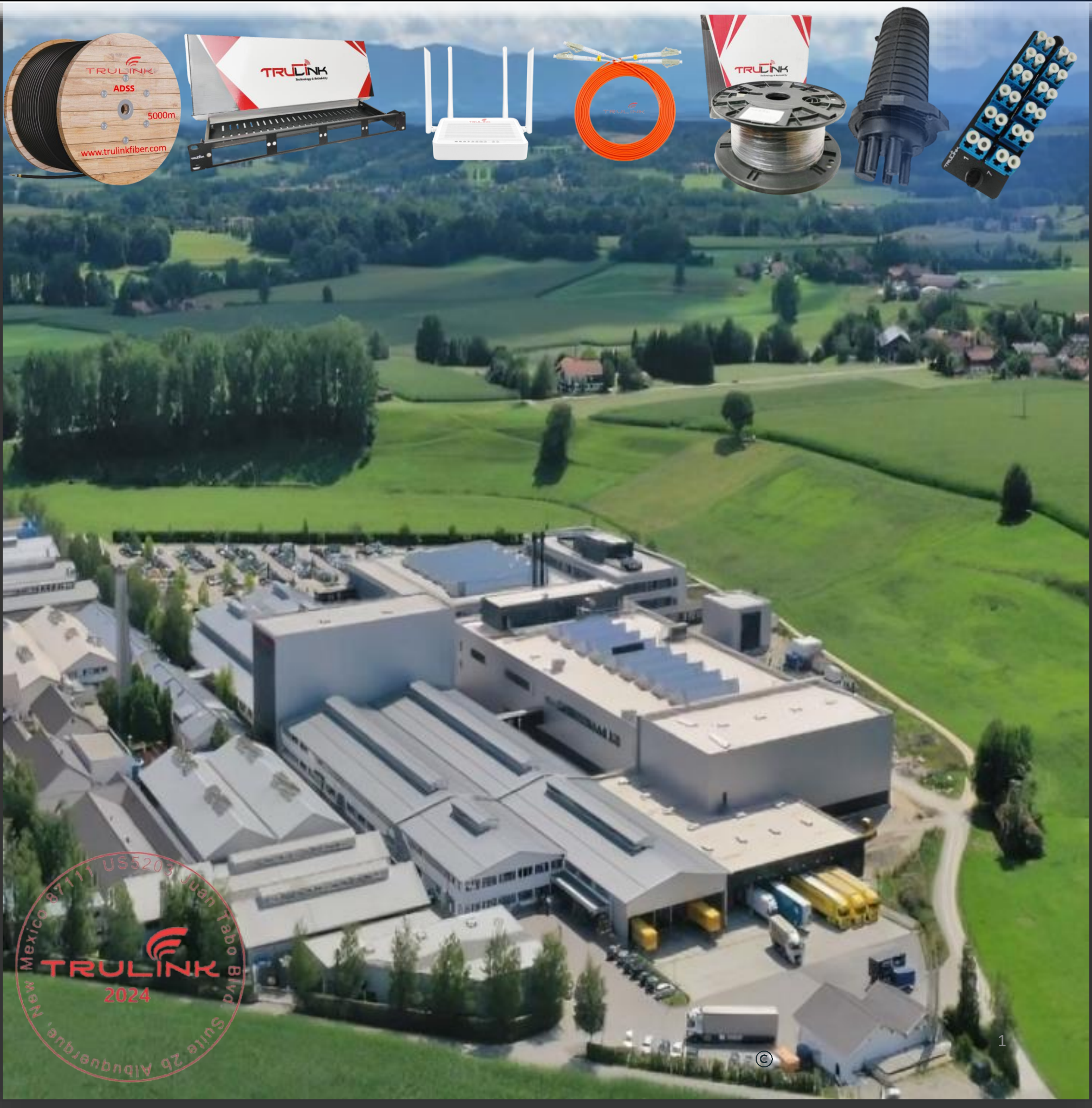


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**OPTICAL CABLES-PATCH CORDS-PIGTAILS V.1.0** **2024-25 CATALOG**





## OPTICAL CABLES-PATCH CORDS-PIGTAILS

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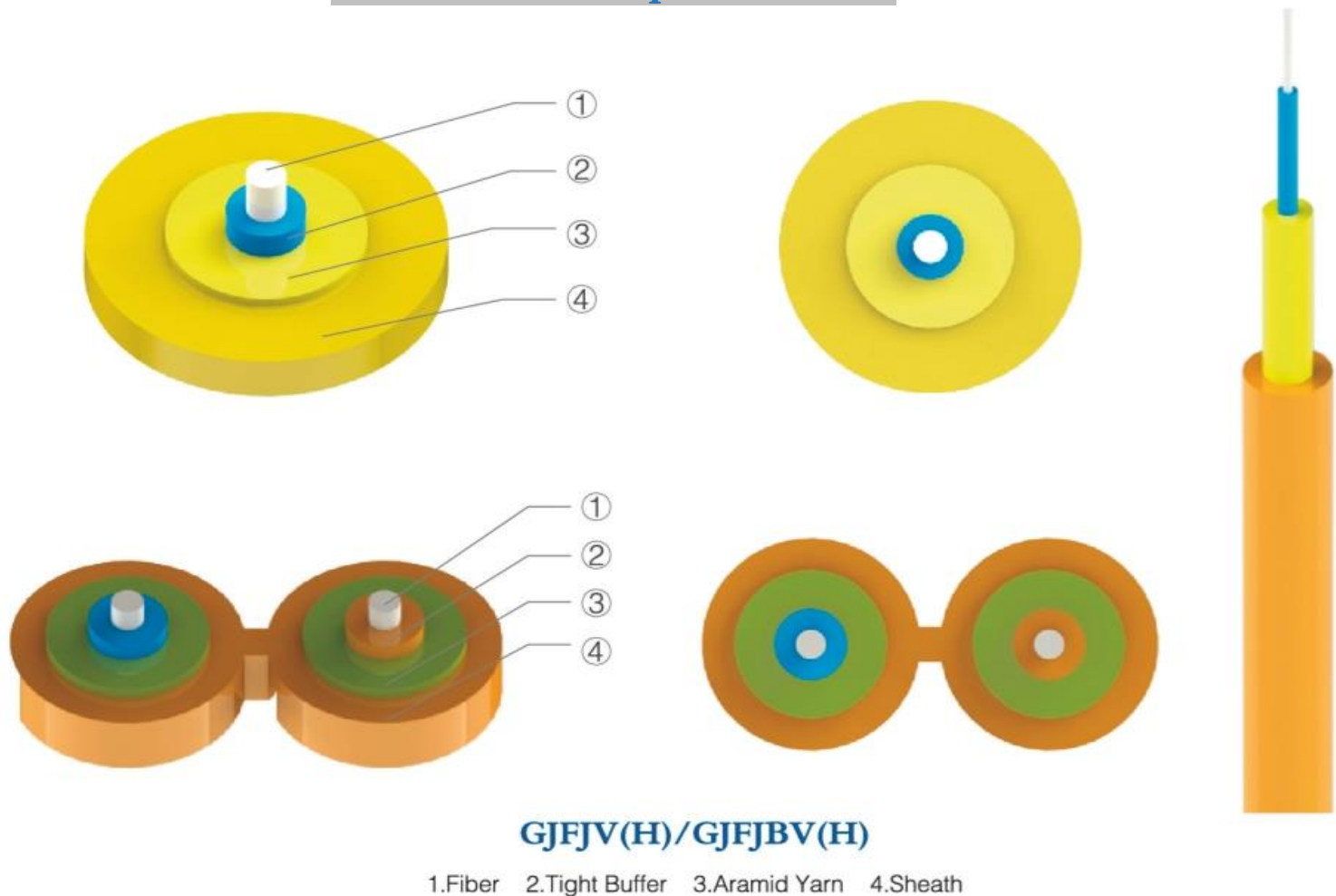


## Duplex Flat Optical Cable(GJFJV(H)/GJFJBV(H))

### Applications

- Optical fiber active connection wire jumper or pigtail
- Indoor ventilation level wiring
- Interconnection between instruments and communication equipments.

### Outdoor Fiber Optical Cables



### CableDescription

Round single core/dual core drop optical cable uses single/double  $\phi 900 \mu\text{m}$  or  $\phi 600 \mu\text{m}$  tight-buffered fibers as the optical transmission medium, and several aramid Yarn are placed around it as tensile components. Finally, a polyvinyl chloride (PVC) sheath or low smoke zero halogen (LSZH) sheath is extruded.



## Features

- Using tight-buffered optical fibers, with the advantages of softness, flexibility and convenient connection.
- The flame-retardant tight-buffered fiber has good flame retardant performance.
- Aramid yarns is used as a strengthening element to provide excellent tensile performance for optical cables.
- The outer sheath has excellent flame retardant performance.

### Outdoor Fiber Optical Cables



## Product Specifications and Structure

Type	Cable diameter (mm)	Tight-buffered optical fiber diameter (μm)	Cable weight (kg/km)	Bending radius Dynamic/static (mm)
GJFJH-1F	1.6±0.2	600±50	3.0	60/30
GJFJH-1F	2.0±0.2	900±50	5.0	60/30
GJFJH-1F	3.0±0.2	900±50	10.0	60/30
GJFJBH-2F	(3.6±0.3)x (1.6±0.1)	600±50	7.0	60/30
GJFJBH-2F	(4.2±0.3)x (1.9±0.1)	900±50	10.0	60/30
GJFJBH-2F	(6.0±0.3)x (2.8±0.1)	900±50	19.0	60/30

## Optical Characteristics

Fiber type	Attenuation coefficient				Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)	@850nm (dB/km)	@1300nm (dB/km)		
G.652D	≤0.4	≤0.3	–	–	(8.6–9.5)±0.6	≤1260
G.657A1	≤0.5	≤0.4	–	–	(8.6–9.5)±0.4	≤1260
G.657A2	≤0.5	≤0.4	–	–	(8.6–9.5)±0.4	≤1260
A1a	–	–	≤3.0	≤1.0	–	–
A1b	–	–	≤3.5	≤1.5	–	–



## Technical and Environmental Characteristics

Item		Unit	Parameter	
Technical Characteristic	Tensile strength Long/short term	N	GJFJBH-1F GJFJBH-2F (3.4x1.6/4.0x1.9)	60/120
			GJFJBH-2F (6.0x2.8)	120/240
	Crush Long/short term	N/100 mm	200/500	
	Bending radius Dynamic/static	mm	30/60	
Environmental Characteristics	Operation	℃	-20~+60	
	Shipping and storage	℃	-5~+50	
	Installation	℃	-5~+40	

## Product Standard

IEC 60794-2-50-2008 Optical fibre cables – Part 2-50: Indoor cables – Family specification for simplex and duplex cables for use in terminated cable assemblies

## Delivery Length

Standard length: 1km, 2km; Other lengths are also available according to customer requirements.



## Multi-core Branch Optical Cable (GJBFJH)

### Applications

- Indoor cabling
- Backbone cabling system in building



1.FRP 2.Cushion 3.Tight Buffer Optical Fiber 4.Aramid Yarn  
5.Sub-unit 6.Polyester Tape 7.Sheath

### Cable Description

The multipurpose branch cable I uses several simplex optical cables (made of 900  $\mu$ m tight buffered fiber and aramid yarns) as optical sub-units. Sub-units are stranded around a non-metallic central strength member to form a cable core. The center reinforcement may be FRP or plastic-coated FRP. The cable core is wrapped with aramid yarn and finally a LSZH outer sheath is extruded on the core.

### Features

- Using stranded cable core structure, the sub-units are easy to diverge, and having good mechanical and environmental performance.
- Using tight-buffered optical fibers, with the advantages of softness, flexibility and convenient connection.
- Aramid yarns is used as a strengthen member to provide excellent tensile performance for optical cables.
- The outer sheath has excellent flame retardant performance.





## Product Specifications and Structure

Type	Cable diameter (mm)	Tight-buffered optical fiber diameter (μm)	Sub-units outer diameter (mm)	Cable weight (kg/km)
GJBFJH-4F	7.4 ± 0.5	900 ± 50	2.0	38
GJBFJH-6F	8.4 ± 0.5	900 ± 50	2.0	52
GJBFJH-8F	9.8 ± 0.5	900 ± 50	2.0	72
GJBFJH-12F	12.4 ± 0.5	900 ± 50	2.0	122
GJBFJH-24F	14.4 ± 0.5	900 ± 50	2.0	149

## Optical Characteristics

Fiber type	Attenuation coefficient				Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)	@850nm (dB/km)	@1300nm (dB/km)		
G.652D	≤0.4	≤0.3	–	–	(8.6–9.5) ± 0.6	≤1260
G.657A1	≤0.5	≤0.4	–	–	(8.6–9.5) ± 0.4	≤1260
G.657A2	≤0.5	≤0.4	–	–	(8.6–9.5) ± 0.4	≤1260
A1a	–	–	≤3.0	≤1.0	–	–
A1b	–	–	≤3.5	≤1.5	–	–

## Technical and Environmental Characteristics

	Item	Unit	Parameter	
Technical Characteristic	Tensile strength Long/short term	N	≤12F	200/660
			>12F	400/1320
	Crush Long/short term	N/100 mm	300/1000	
	Bending radius Dynamic/static	mm	10D/20D	
Environmental Character	Operation	℃	–20~+60	
	Shipping and storage	℃	–5~+50	
	Installation	℃	–5~+40	

## Product Standard

IEC 60794-2-20-2013 Optical fibre cables – Part 2-20: Indoor cables – Family specification for multi-fibre optical cables

## Delivery Length

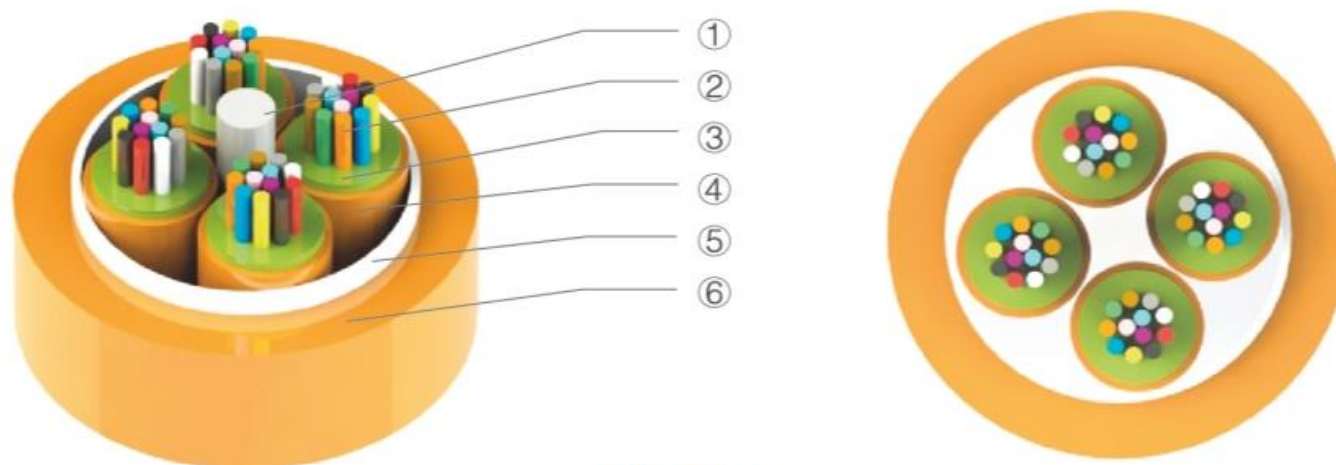
Standard length: 1km,2km; Other lengths are also available according to customer requirements.



## Large Fiber Count Mixed Branch Optical Cable (GJBFJVH)

### Applications

- Indoor cabling
- Backbone cabling system in building



**GJBFJVH**

1.FRP 2.Tight Buffer Optical Fiber 3.Aramid Yarn  
4.Sub Unit 5.Water Blocking Tape 6.Sheath

### Cable Description

The large fiber count mixed branch optical cable uses multi-core unit ( $\phi 900 \mu m$  tight buffered Fiber, aramid yarns and non-metallic center strength member) as optical sub-units. Sub-units are stranded around a non-metallic central strength member to form a cable core. Then a PVC or LSZH sheath is extruded on the core.

### Features

- High tensile strength due to stranded and non-metallic central strength member.
- Using tight-buffered optical fibers, with the advantages of softness, flexibility and convenient connection.
- Aramid yarns is used as a strengthen member to provide excellent tensile performance for optical cables.
- The outer sheath has excellent flame retardant performance.



## Product Specifications and Structure

Type	Cable diameter (mm)	Tight-buffered optical fiber diameter (μm)	Cable weight (kg/km)
MPC-24F	13.3±0.5	900±50	99
MPC-36F	16.9±0.5	900±50	183
MPC-48F	16.7±0.5	900±50	175
MPC-72F	20.2±0.5	900±50	286
MPC-96F	21.3±0.5	900±50	267
MPC-144F	25.9±0.5	900±50	447

## Optical Characteristics

Fiber type	Attenuation coefficient				Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)	@850nm (dB/km)	@1300nm (dB/km)		
G.652D	≤0.4	≤0.3	–	–	(8.6–9.5)±0.6	≤1260
G.657A1	≤0.5	≤0.4	–	–	(8.6–9.5)±0.4	≤1260
G.657A2	≤0.5	≤0.4	–	–	(8.6–9.5)±0.4	≤1260
A1a	–	–	≤3.0	≤1.0	–	–
A1b	–	–	≤3.5	≤1.5	–	–

## Technical and Environmental Characteristics

Item		Unit	Parameter	
Technical Characteristic	Tensile strength	N	≤36F	200/660
	Long/short term		>36F	400/1320
	Crush	N/100 mm	300/1000	
	Long/short term			
Environmental Characteristics	Bending radius	mm	10D/20D	
	Dynamic/static			
	Operation	°C	–20~+60	
	Shipping and storage	°C	–5~+50	
	Installation	°C	–5~+40	



## Product Standard

IEC 60794-2-20-2013 Optical fibre cables-Part 2-20: Indoor cables-Family specification for multi-fibre optical cables

## Delivery Length

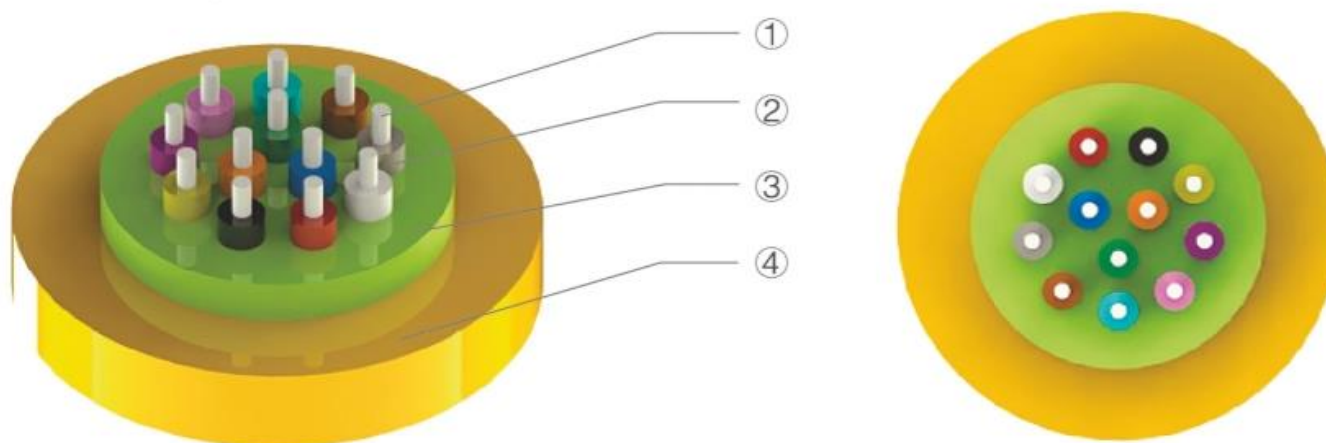
Standard length: 1km,2km; Other lengths are also available according to customer requirements.



## Multi-core Optical Cable (GJPFJH(V))

### Applications

- Data Center
- Indoor cabling



### GJPFJH(V)

1.Optical Fiber 2.Tight Buffer 3.Aramid Yarn 4.Sheath

### Cable Description

The multi-core bundle optical cable uses several 900  $\mu$  m or 600  $\mu$  m tight buffered Fibers as optical transmission medium, and several aramid yarn are placed around it as tensile components, then a LSZH or PVC sheath is extruded.

### Features

- Using tight-buffered optical fibers, with the advantages of softness, flexibility and convenient connection.
- Aramid yarns is used as a strengthening element to provide excellent tensile performance for optical cables.
- The outer sheath has excellent flame retardant performance.





## Product Specifications and Structure

Type	Cable diamete (mm)	Tight-buffered optical fiber diameter (μm)	Cable weight (kg/km)
GJPFJH-4F	4.8 ± 0.3	900 ± 50	17
GJPFJH-6F	5.1 ± 0.3	900 ± 50	20
GJPFJH-8F	5.6 ± 0.3	900 ± 50	23
GJPFJH-12F	6.2 ± 0.3	900 ± 50	34
GJPFJH-24F	8.1 ± 0.3	900 ± 50	53

## Optical Characteristics

Fiber type	Attenuation coefficient				Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)	@850nm (dB/km)	@1300nm (dB/km)		
G.652D	≤0.4	≤0.3	–	–	(8.6–9.5) ± 0.6	≤1260
G.657A1	≤0.5	≤0.4	–	–	(8.6–9.5) ± 0.4	≤1260
G.657A2	≤0.5	≤0.4	–	–	(8.6–9.5) ± 0.4	≤1260
A1a	–	–	≤3.0	≤1.0	–	–
A1b	–	–	≤3.5	≤1.5	–	–

## Technical and Environmental Characteristics

Item		Unit	Parameter	
Technical Characteristic	Tensile strength Long/short term	N	4F	400
			6F	500
			8F	700
			12F	1200
			24F	1500
Environmental Characteristics	Crush Long/short term	N/500 mm	500	
	Bending radius Dynamic/static	mm	10D/20D	
	Operation	℃	–20~+60	
Environmental Characteristics	Shipping and storage	℃	–5~+50	
	Installation	℃	–5~+40	

## Product Standard

IEC 60794-2-20-2013 Optical fibre cables – Part 2-20: Indoor cables – Family specification for multi-fibre optical cables

## Delivery Length

Standard length: 1km, 2km; Other lengths are also available according to customer requirements.

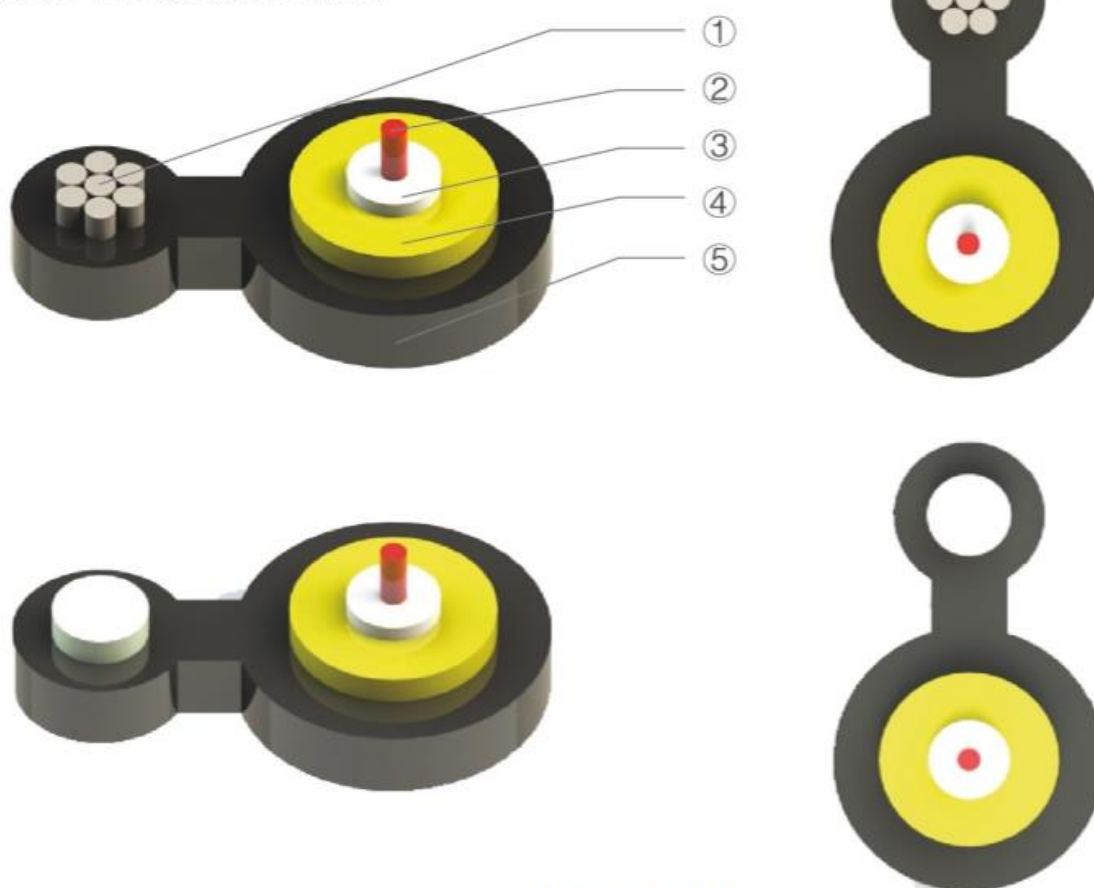




## Small Figure-8 Self-Supporting Optical Cable(GJYFJC8H)

### Applications

- Self-supporting overhead
- Rural FTTH access network



**GJYFJC8H**

1.Stranded Steel Wire 2.Fiber 3.Tight Buffer 4.Aramid Yarn 5.Sheath

### Cable Description

Indoor-outdoor small figure-8 self-supporting drop optical cable uses one or more  $\phi 900 \mu\text{m}$  flame-retardant tight-buffered optical fibers as the optical transmission medium, and several aramid yarn are evenly placed around as tensile elements. A strength member is placed parallel to the cable core part as a suspension wire, which can be steel stranded wire, FRP or aramid. The suspension wire and the cable core are extruded together with a figure-8 LSZH outer sheath.



## Features

- Light weight and small diameter, easy for self-supporting aerial installation, reducing installation costs.
- Aramid yarns and suspension wire are used as a strengthening element to provide excellent tensile performance for optical cables.
- Using tight-buffered optical fibers, with the advantages of softness, flexibility and convenient connection.
- The outer sheath has excellent flame retardant performance.



## Product Specifications and Structure

Type (Steel strand reinforcement)	Cable diameter (mm)	Tight-buffered optical fiber diameter (μm)	Cable weight (kg/km)
GJYFJC8H-1F	3.0/5.5 ± 0.3	900 ± 50	19
GJYFJC8H-2F	3.5/6.0 ± 0.3	900 ± 50	22
GJYFJC8H-4F	4.8/7.3 ± 0.3	900 ± 50	31
GJYFJC8H-6F	5.1/7.6 ± 0.3	900 ± 50	34
GJYFJC8H-8F	5.6/8.1 ± 0.3	900 ± 50	38
GJYFJC8H-12F	6.2/8.7 ± 0.3	900 ± 50	45

Type (FRP reinforcement)	Cable diameter (mm)	Tight-buffered optical fiber diameter (μm)	Cable weight (kg/km)
GJYFJC8H-1F	3.0/5.5 ± 0.3	900 ± 50	15
GJYFJC8H-2F	3.5/6.0 ± 0.3	900 ± 50	19
GJYFJC8H-4F	4.8/7.3 ± 0.3	900 ± 50	27
GJYFJC8H-6F	5.1/7.6 ± 0.3	900 ± 50	31
GJYFJC8H-8F	5.6/8.1 ± 0.3	900 ± 50	35
GJYFJC8H-12F	6.2/8.7 ± 0.3	900 ± 50	42



## Optical Characteristics

Fiber type	Attenuation coefficient				Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)	@850nm (dB/km)	@1300nm (dB/km)		
G.652D	≤0.4	≤0.3	–	–	(8.6–9.5) ± 0.6	≤1260
G.657A1	≤0.5	≤0.4	–	–	(8.6–9.5) ± 0.4	≤1260
G.657A2	≤0.5	≤0.4	–	–	(8.6–9.5) ± 0.4	≤1260

## Technical and Environmental Characteristics

Item		Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	300/600 (FRP reinforcement) 300/1000 (Steel strand reinforcement)
	Crush Long/short term	N/100 mm	300/1000
	Bending radius Dynamic/static	mm	10D/20D
Environmental Characteristics	Operation	℃	–20~+60
	Shipping and storage	℃	–5~+50
	Installation	℃	–5~+40

## Product Standard

YD/T 1155–2011 Fig–8 self–support optical fiber cables for outdoor telecommunications

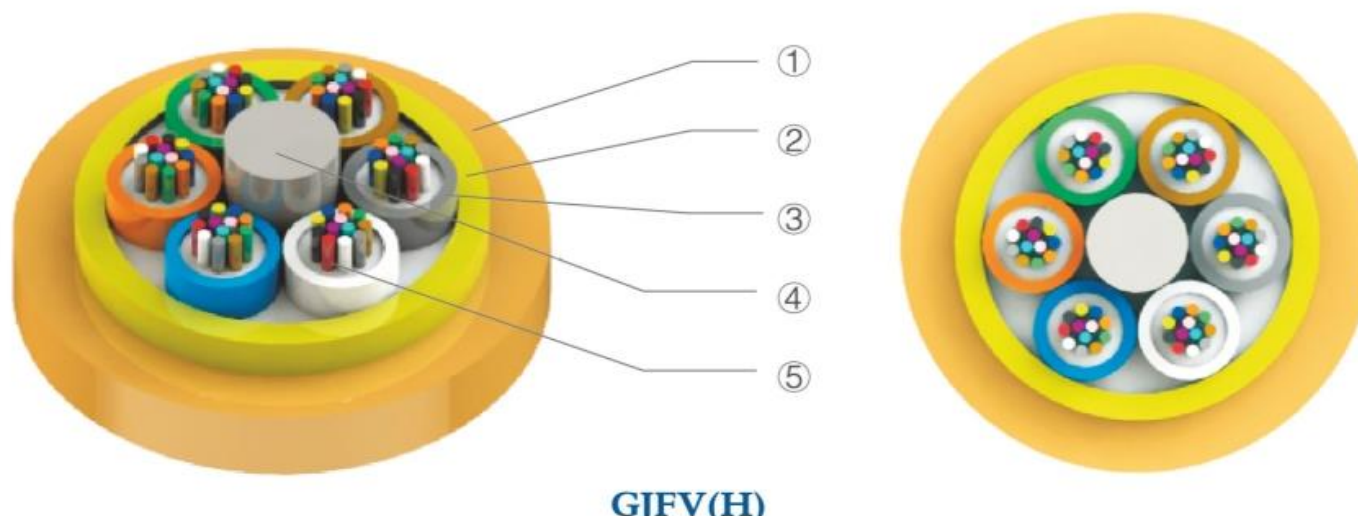
## Delivery Length

Standard length: 1km, 2km, 3km; Other lengths are also available according to customer requirements.

## Indoor Micro-tube Breakout Optical Cable for Vertical Wiring (GJFV(H))

### Applications

- Data Center
- Vertical wiring system in buildings
- Connection between communication equipments



1.Outer Sheath   2.Aramid Yarn   3.Loose Tube   4.FRP   5.Optical Fiber

### Cable Description

Optical fiber ( $\phi 250 \mu m$ ) are housed in the LSZH loose tubes with 2–12 fiber cores in each tube, and the multiple loose tube are stranded around the central strength member to form a cable core. The high modulus aramid yarn is evenly placed around the cable core as a tensile element. Then a PVC or LSZH sheath is extruded on the core.

### Features

- Aramid yarns is used as a strengthen element to provide excellent tensile performance for optical cables.
- The fiber density is high, suitable for indoor dense wiring places.
- Light weight , small diameter and easy divergence, the cable can be used for vertical wiring systems in buildings.
- Outer sheath ensuring good flame-retardant performance and corrosion resistance





## Product Specifications and Structure

Type	Cable diameter (mm)	Cable weight (kg/km)	Bending radius
GJFH-4F	4.7 ± 0.2	27	20D/10D
GJFH-6F	4.7 ± 0.2	27	20D/10D
GJFH-8F	4.7 ± 0.2	27	20D/10D
GJFH-12F	4.7 ± 0.2	27	20D/10D
GJFH-24F	6.3 ± 0.2	51	20D/10D

## Optical Characteristics

Fiber type	Attenuation coefficient				Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)	@850nm (dB/km)	@1300nm (dB/km)		
G.657A1	≤0.5	≤0.4	–	–	(8.6–9.5) ± 0.4	≤1260
G.657A2	≤0.5	≤0.4	–	–	(8.6–9.5) ± 0.4	≤1260
A1a	–	–	≤3.0	≤1.0	–	–
A1b	–	–	≤3.5	≤1.5	–	–

## Technical and Environmental Characteristics

Item		Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	≤12F 30/100 >12F 50/150
	Crush Long/short term	N/100 mm	–
	Bending radius Dynamic/static	mm	10D/20D
Environmental Characteristics	Operation	°C	–20~+60
	Shipping and storage	°C	–5~+50
	Installation	°C	–5~+40

## Product Standard

IEC 60794-2-20-2013 Optical fibre cables-Part 2-20: Indoor cables-Family specification for multi-fibre optical cables.

## Delivery Length

Standard length: 2km, 3km, 4km; Other lengths are also available according to customer requirements.

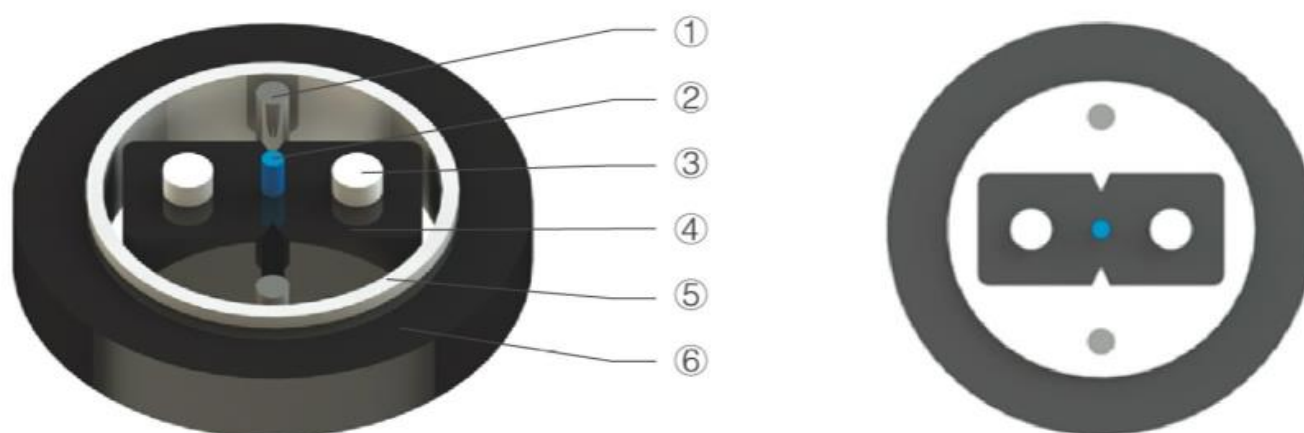




## Ducting Drop Cable(GJYX(F)H03/GJYX(F)HA)

### Applications

- Laying in duct of buildings and apartments



(GJYX(F)H03/GJYX(F)HA)

1.Steel 2.Fiber 3.Strength Member 4.Dropcable sheath 5.Water Blocking Yarn 6.Outer PE sheath

### Cable Description

Duct drop cable for access network is a drop cable optical fiber placed in the center, two parallel tensile strengthening members are placed on both sides, and the water blocking yarn is wrapped as a moisture-proof layer. Finally the PE sheath is extruded on the core.

### Features

- Bending loss insensitive single mode optical fiber provides smaller bending radius and adapts to the complicated indoor wiring environment.
- Two parallel tensile strength members make the optical cable have good crush resistance and tensile performance, and protect the optical fiber.
- The optical cable has simple structure, light weight and strong practicability.
- The drop cable has a unique groove design, which is easy to peel off and easy to connect. It can also be made into a prefabricated end.
- PE outer sheath has good ultraviolet resistance, making the cable good weather resistance.



## Product Specifications and Structure

Type	Cable diameter (mm)	Drop cable optical cable diameter (mm)	Cable weight (kg/km)
GJYX (F)H03-1F	5.5 ± 0.3	2.0*3.0	47
GJYX (F)H03-2F	5.5 ± 0.3	2.0*3.0	47

## Optical Characteristics

Fiber type	Attenuation coefficient		Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	≤0.4	≤0.3	(8.6–9.5) ± 0.6	≤1260
G.657A1	≤0.36	≤0.22	(8.6–9.4) ± 0.6	≤1260
G.657A2	≤0.36	≤0.22	(8.6–9.4) ± 0.6	≤1260

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	300/600
	Crush Long/short term	N/100 mm	1000/2200
	Bending radius Dynamic/static	mm	10D/20D
Environmental Characteristics	Operation	℃	–40~+60
	Shipping and storage	℃	–40~+60
	Installation	℃	–5~+40

Note: D is the diameter of optical cable

## Product Standard

YD/T 1997.1–2014 Drop optical fibre cables for telecommunication Part 1: Bow-type optical fibre cables.

## Delivery Length

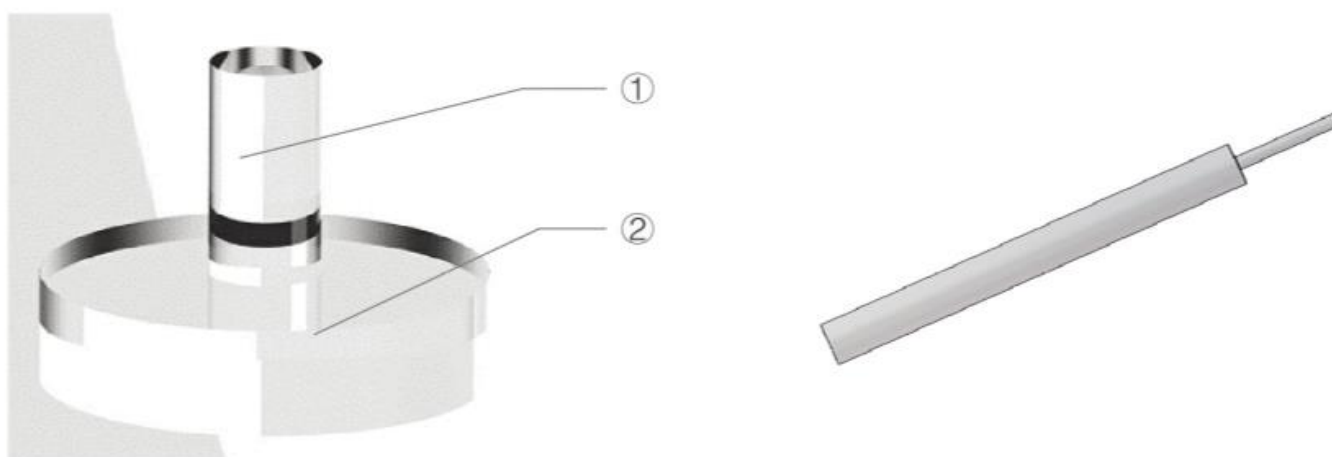
Standard length: 1km, 2km; Other lengths are also available according to customer requirements.



## InvisibleOptical Fiber (GJI)

### Applications

- FTTH (Fiber To The Home)
- Invisible wiring for indoor internal and external corners



GJI

1.Optical Fiber 2.Tight Sheath

### Cable Description

The invisible optical cable is formed by extruding a layer of 900  $\mu\text{m}$  transparent thermoplastic material outside the 250  $\mu\text{m}$  optical fiber as a protective buffer medium. The transparent thermoplastic material can be TPU, PA, PVC, etc.

### Features

- Bending loss insensitive single mode optical fiber provides a minimum bending radius of 5mm and adapts to the complicated indoor wiring environment.
- Tight buffered fiber has a uniform outer diameter and good strippability.
- Stable high and low temperature characteristics.
- The sheath material is transparent, which is almost invisible at a distance of 1 m and the indoor wiring is beautiful.



## Product Specifications and Structure

Type	Cable diameter (μm)	Cable weight (kg/km)
GJL-1B6a3	900	0.8
GJL-2B6a3	900	0.9

## Optical Characteristics

Fiber type	Attenuation coefficient		Macrobending loss		Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)	@1310nm (dB/km)	@1550nm (dB/km)		
G.657A1	≤0.36	≤0.22	–	–	(8.6–9.4) ± 0.6	≤1260
G.657A2	≤0.36	≤0.22	–	–	(8.6–9.4) ± 0.6	≤1260
G.657B3	≤0.36	≤0.22	0.03	0.02	8.6 ± 0.4	≤1260

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	5/20
	Crush Long/short term	N/100 mm	200/500
	Bending radius Dynamic/static	mm	10D/20D
Environmental Characteristics	Operation	°C	–40~+60
	Shipping and storage	°C	–40~+60
	Installation	°C	–5~+40

## Product Standard

YD/T 1258.7–2019 The series of indoor optical cables–Part 7:invisible optical fibre cable

## Delivery Length

Standard length: 1km, 2km; Other lengths are also available according to customer requirements.

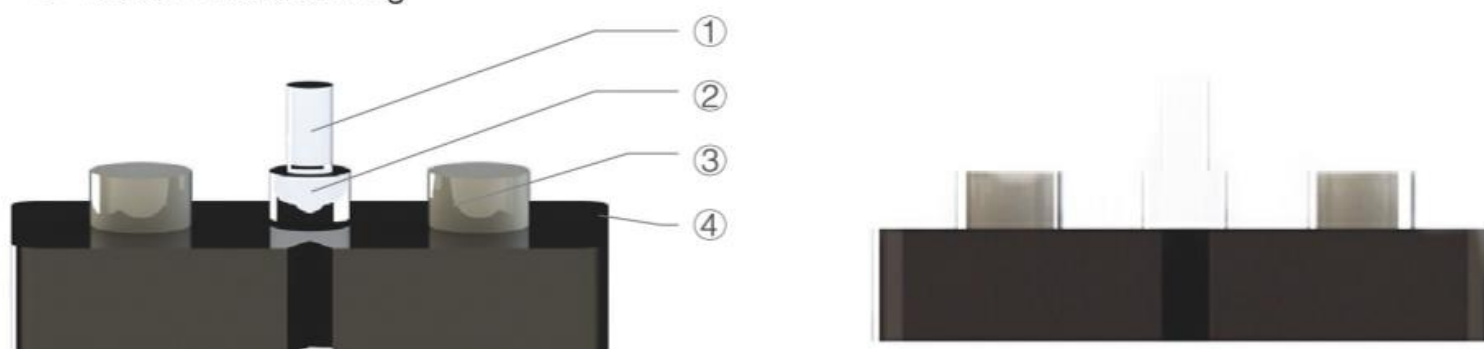
Note: Our company can accept product customization with special performance requirements of this model.



## InvisibleDrop Cable (GJX(F)IH)

### Applications

- Corridor split fiber box to the user room
- Indoor invisible wiring



GJX(F)IH

1.Optical Fiber 2.Tight Buffer 3.Strength Member 4.Outer Sheath

### Cable Description

The Invisible drop cable is the invisible optical cable as a sub-unit placed in the center of the drop cable cable, and the LSZH outer sheath is extruded. The size of the drop cable invisible optical cable is the same as that of the conventional drop cable optical cable. It is laid through a pipe from the corridor split fiber box to the user's door. When entering the user's room, the outer sheath of the drop cable optical cable is stripped, and the invisible optical cable is used for wiring in the indoor without splicing optical fibers.

### Features

- Bending loss insensitive single mode optical fiber provides a minimum bending radius of 5 mm and adapts to the complicated indoor wiring environment.
- The two parallel strengthen members make the optical cable have good compression resistance and protect the optical fiber.
- Transparent thermoplastic buffer, beautiful laying



### Product Specifications and Structure

Type	Tight-buffered optical fiber diameter (mm)	Drop cable optical cable diameter (mm)	Cable weight (kg/km)
GJXIH	900	2.0*3.0	10.8

## Optical Characteristics

Fiber type	Attenuation coefficient		Macrobending loss		Mode field diameter @1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)	@1310nm (dB/km)	@1550nm (dB/km)		
G.657A1	$\leq 0.36$	$\leq 0.22$	–	–	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.657A2	$\leq 0.36$	$\leq 0.22$	–	–	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.657B3	$\leq 0.36$	$\leq 0.22$	0.03	0.02	$8.6 \pm 0.4$	$\leq 1260$

## Technical and Environmental Characteristics

Item		Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	100/200
	Crush Long/short term	N/100 mm	500/1000
	Bending radius Dynamic/static	mm	15/30
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-5~+40

## Product Standard

YD/T 1997.1–2014 Drop optical fibre cables for telecommunication Part 1: Bow-type optical fibre cables and YD/T 1258.7–2019 The series of indoor optical cables–Part 7: invisible optical fibre cable

## Delivery Length

Standard length: 1km, 2km; Other lengths are also available according to customer requirements.

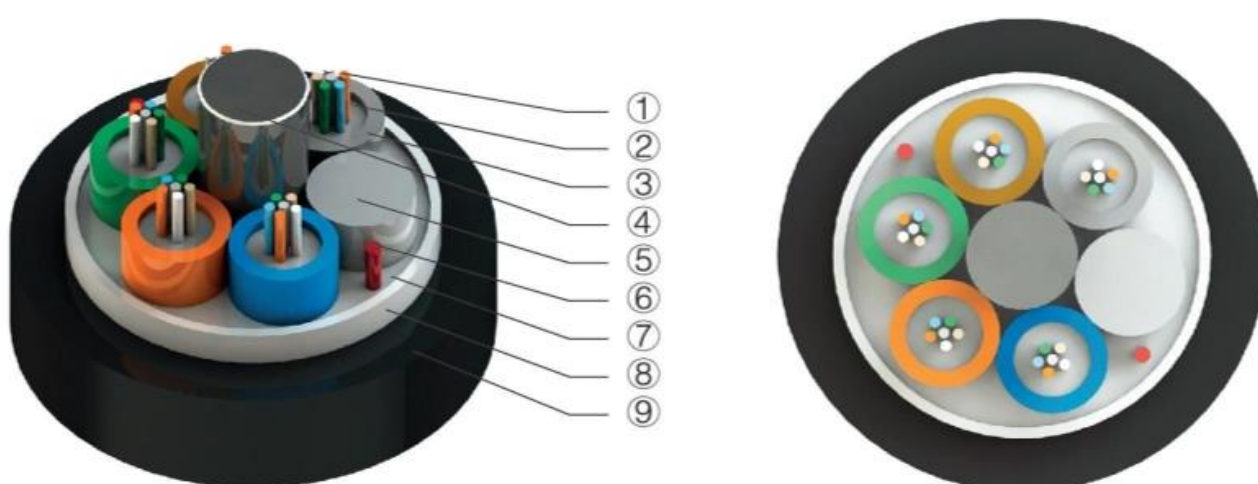
Note: Our company can accept product customization with special performance requirements of this model.



## Aluminum Tape Armored Stranded Loose Tube (Fire-resistance) Optical Cable (GYT(Z)A)

### Applications

- Duct, non-self-supporting aerial optical cables



**GYT(Z)A**

1.Optical Fiber 2.Gel 3.Loose Tube 4.Center Strengthening Wire 5.Filler (maybe)  
6.Rip Cord (maybe) 7.Water-Blocking Compound 8.APL 9.PE or LSZH outer sheath

### Cable Description

Optical Fibers are housed in loose tubes that are made of high-modulus hydrolysis resistant plastic and filled with tube filling compound. The loose tube and possible fillers surround the central metallic strengthening member to form the cable core by SZ stranding. The cable core is armored with aluminum tape. Fill the water-blocking compound between the cable core and the aluminum tape. Then a PE or LSZH outer sheath is extruded.

### Features

- The material of loose tubes with good hydrolysis and lateral compression resistance. The loose tube is filled with gel to protect the optical fiber and ensure longitudinal water resistance
- Accurate process control of optical fiber excess-length and cable core structure excess length ensuring good mechanical and temperature performances.



- Water blocking gel and compound ensure the longitudinal water blocking performance of the optical cable. The APL improves the moisture resistance of the optical cable and prevents the external moisture of the optical cable from penetrating into the cable core.
- The black PE or LSZH outer sheath has anti-ultraviolet radiation performance and environmental stress crack resistance performance, ensuring the service life of the optical cable.

## Product Specifications and Structure

Type (PE sheath)	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYTA-4F	4	5	1	4	81
GYTA-6F	6	5	1	4	81
GYTA-12F	6	5	2	3	81
GYTA-24F	6	5	4	1	81
GYTA-30F	6	5	5	0	81
GYTA-36F	6	6	6	0	93
GYTA-48F	12	5	4	1	100
GYTA-72F	12	6	6	0	111
GYTA-96F	12	8	8	0	128
GYTA-120F	12	12	10	2	152
GYTA-144F	12	12	12	0	182
GYTA-216F	12	1+6+12	18	0	186
GYTA-288F	12	1+9+15	24	0	230

Type (LSZH sheath)	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYTZA-4F	4	5	1	4	106
GYTZA-6F	6	5	1	4	106
GYTZA-12F	6	5	2	3	106
GYTZA-24F	6	5	4	1	106
GYTZA-30F	6	5	5	0	127
GYTZA-36F	6	6	6	0	127
GYTZA-48F	12	5	4	1	117
GYTZA-72F	12	6	6	0	137
GYTZA-96F	12	8	8	0	163
GYTZA-120F	12	12	10	2	220
GYTZA-144F	12	12	12	0	220
GYTZA-216F	12	1+6+12	18	0	227
GYTZA-288F	12	1+9+15	24	0	282



Note:

1. The parameters in the table are typical structural parameters of GYT(Z)A. Our company can provide 2~288 GYT(Z)A optical cables with any specifications or special structural parameters.

2.F is optical fibertype.

## Optical Characteristics

Fiber type	Attenuation coefficient		Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	≤0.36	≤0.22	(8.6~9.4) ± 0.6	≤1260
G.655	—	≤0.25	(8.0~11.0) ± 0.6	≤1450

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bending radius Dynamic/static	mm	10D/20D
Environmental Character	Operation	℃	-40~+60
	Shipping and storage	℃	-40~+60
	Installation	℃	-10~+60

Note: D is the diameter of optical cable.

## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables

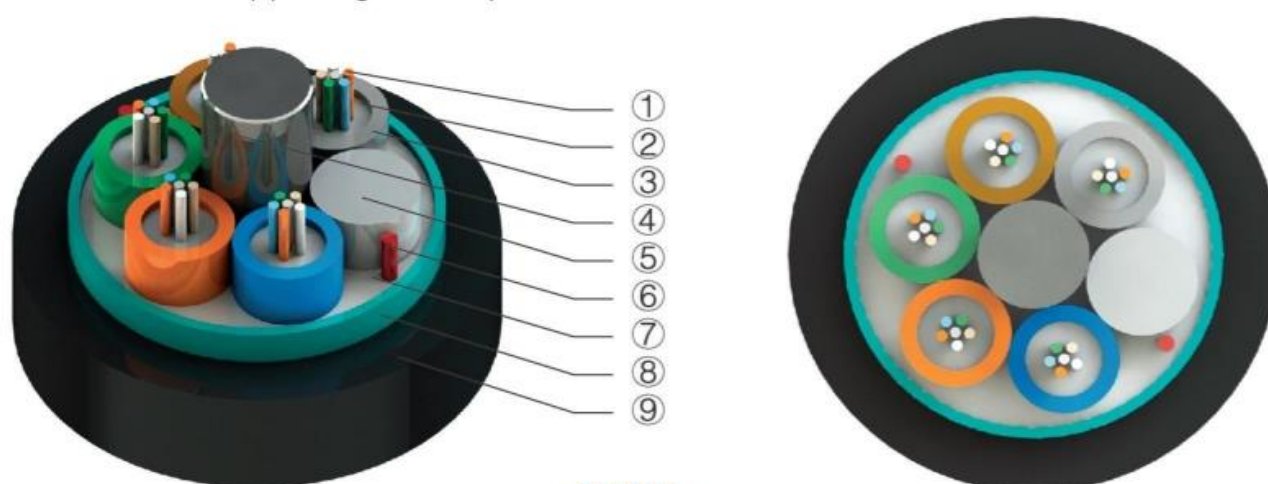
## Delivery Length

Standard length: 2km, 3km, 4km; Other lengths are also available according to customer requirements.

## Steel Tape Armored Stranded Loose Tube Optical Cable (GYTS)

### Applications

- IDuct, non-self-supporting aerial optical cables



**GYTS**

1.Optical Fiber 2.Gel 3.Loose Tube 4.Steel wire 5.Filler (maybe) 6.Rip Cord (maybe)  
7.Water-Blocking compound 8.Steel Tape 9.PE Outer Sheath

### Cable Description

Optical Fibers are housed in loose tubes that are made of high-modulus hydrolysis resistant plastic and filled with tube filling compound. The loose tube and possible fillers surround the central metallic strengthening member to form the cable core by SZ stranding. The cable core is armored with steel tape. Fill the water-blocking compound between the cable core and the aluminum tape. Then a PE outer sheath is extruded.

### Features

- The material of loose tubes with good hydrolysis and lateral compression resistance. The loose tube is filled with gel to protect the optical fiber and ensure longitudinal water resistance.
- Accurate process control of optical fiber excess-length and cable core structure excess length ensuring good mechanical and temperature performances.
- Water blocking gel and compound ensure the longitudinal water blocking performance of the optical cable. The steel tape improves the moisture resistance of the optical cable and prevents the external moisture of the optical cable from penetrating into the cable core.
- The black PE outer sheath has anti-ultraviolet radiation performance and environmental stress crack resistance performance, ensuring the service life of the optical cable.



## Product Specifications and Structure

Type	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYTS-4F	4	5	1	4	96
GYTS-6F	6	5	1	4	97
GYTS-12F	6	5	2	3	97
GYTS-24F	6	5	4	1	97
GYTS-30F	6	5	5	0	97
GYTS-36F	6	6	6	0	109
GYTS-48F	12	5	4	1	117
GYTS-72F	12	6	6	0	126
GYTS-96F	12	8	8	0	148
GYTS-120F	12	10	10	0	174
GYTS-144F	12	12	12	0	207
GYTS-216F	12	1+6+12	18	0	213
GYTS-288F	12	1+9+15	24	0	261

Note: 1.The parameters in the table are typical structural parameters of GYTS. Our company can provide 2~288 GYTS optical cables with any specifications or special structural parameters.

2.F is optical fibertype.

## Optical Characteristics

Fiber type	Attenuation coefficient		Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	≤0.36	≤0.22	(8.6~9.4) ± 0.6	≤1260
G.655	—	≤0.25	(8.0~11.0) ± 0.6	≤1450

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bending radius Dynamic/static	mm	10D/20D
Environmental Character	Operation	℃	-40~+60
	Shipping and storage	℃	-40~+60
	Installation	℃	-10~+60



Note: D is the diameter of optical cable.

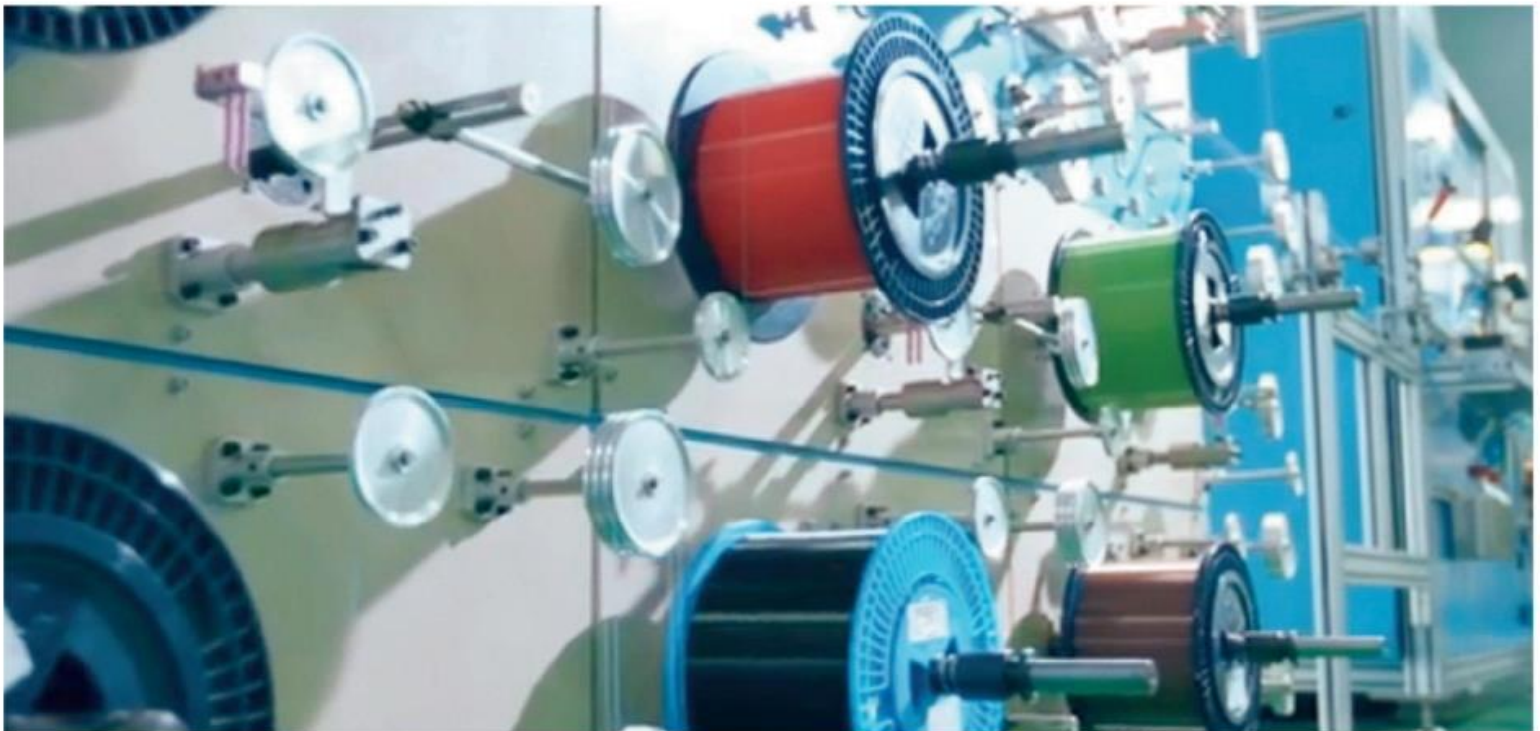
## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables

## Delivery Length

Standard length: 2km, 3km, 4km; Other lengths are also available according to customer requirements.

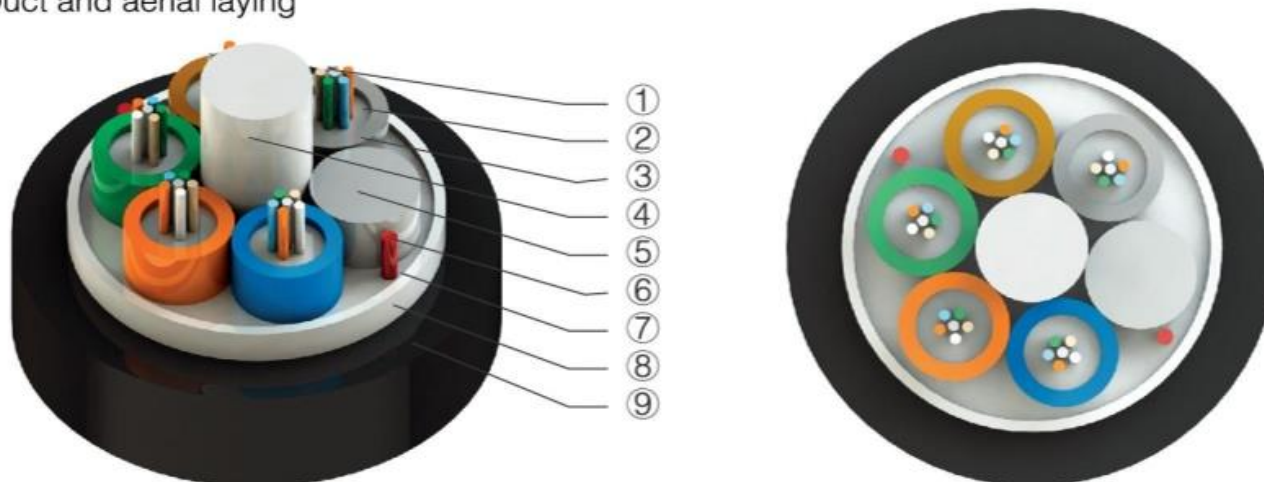
Note: Our company can accept product customization with special performance requirements of this model.



## Non-Metallic Aluminum Tape Armored Stranded Loose Tube Optical Cable (GYFTA)

### Applications

- IDuct and aerial laying



**GYFTA**

1.Optical Fiber 2.Gel 3.Loose Tube 4.FRP 5.Filler (maybe) 6.Rip Cord (maybe)  
7.Water-Blocking Compound 8.APL 9.PE Outer Sheath

### Cable Description

Optical Fibers are housed in loose tubes that are made of high-modulus hydrolysis resistant plastic and filled with tube filling compound. The loose tube and possible fillers surround the central non-metallic strengthening member to form the cable core by SZ stranding. The cable core is armored with aluminum tape. Fill the water-blocking compound between the cable core and the aluminum tape. Then a PE outer sheath is extruded.

### Features

- The material of loose tubes with good hydrolysis and lateral compression resistance. The loose tube is filled with gel to protect the optical fiber and ensure longitudinal water resistance.
- Accurate process control of optical fiber excess-length and cable core structure excess length ensuring good mechanical and temperature performances.
- Water blocking gel and compound ensure the longitudinal water blocking performance of the optical cable. The APL improves the moisture resistance of the optical cable and prevents the external moisture of the optical cable from penetrating into the cable core.





- The black PE outer sheath has anti-ultraviolet radiation performance and environmental stress crack resistance performance, ensuring the service life of the optical cable.

## Product Specifications and Structure

Type	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYFTA-4F	4	6	1	5	115
GYFTA-6F	6	6	1	5	115
GYFTA-12F	6	6	2	4	115
GYFTA-24F	6	6	4	2	115
GYFTA-30F	6	6	5	1	115
GYFTA-36F	6	6	6	0	115
GYFTA-48F	12	6	4	2	132
GYFTA-72F	12	6	6	0	132
GYFTA-96F	12	8	8	0	132
GYFTA-120F	12	10	10	0	157
GYFTA-144F	12	12	12	0	186
GYFTA-216F	12	1+8+16	18	6	228
GYFTA-288F	12	1+9+15	24	0	274

Note:

1.The parameters in the table are typical structural parameters of GYFTA. Our company can provide 2~288 GYFTA optical cables with any specifications or special structural parameters.

2.F is optical fibertype.

## Optical Characteristics

Fiber type	Attenuation coefficient		Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	≤0.36	≤0.22	(8.6~9.4) ± 0.6	≤1260
G.655	—	≤0.25	(8.0~11.0) ± 0.6	≤1450



## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bending radius Dynamic/static	mm	10D/20D
Environmental Character	Operation	℃	-40~+60
	Shipping and storage	℃	-40~+60
	Installation	℃	-10~+60

Note: D is the diameter of optical cable.

## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables

## Delivery Length

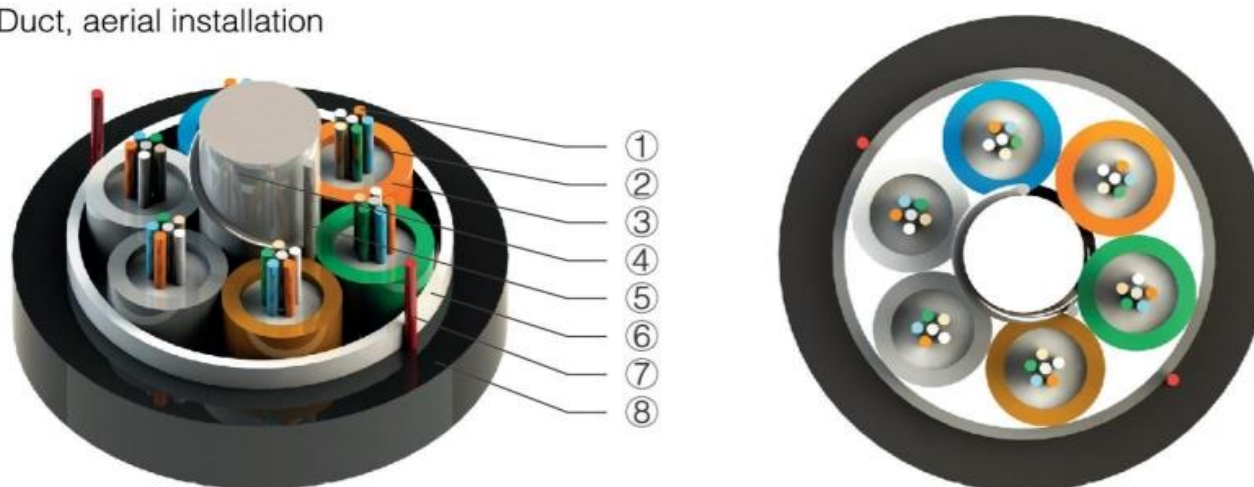
Standard length: 2km, 3km, 4km; Other lengths are also available according to customer requirements.

Note: Our company can accept product customization with special performance requirements of this model.

## (Semi-dry)Non-metallic Stranded Loose TubeOptical Cable (GYFY)

### Applications

- Duct, aerial installation



#### GYFY

- 1.Fiber 2.Gel 3.Loose Tube 4.FRP 5.Water Blocking Yarn  
6.Water Blocking Tape 7.Rip Cord 8.PE Outer Sheath

### Cable Description

The colored optical fiber into a loose tube made of high modulus hydrolysis resistant material, and the tube is filled with a thixotropic water-blocking fiber paste to form an optical fiber loose tube. A plurality of loose tubes of optical fibers arranged in accordance with the requirements of the color sequence and possible fillers are surrounded by the non-metallic reinforced core in the center, and the cable core is formed by SZ stranding. The cable core is longitudinally covered with a layer of water-blocking tape, the gap of the cable core is made of dry water-blocking material, and the water-blocking tape layer is extruded with a polyethylene sheath.

### Features

- Loose tube material has good hydrolysis resistance and lateral pressure resistance. The loose tube is filled with a thixotropic water-blocking fiber paste to buffer and protect the optical fiber and realize the full cross-section water blocking in the loose tube.
- Precise control of fiber residual in loose tube and cable core structural residual ensures that the cable meets the tensile performance and temperature characteristics required by product standards.
- The water-blocking yarns and tapes realize the full cross-section water blocking of the internal gaps of the optical cable structure and ensure the longitudinal water blocking performance of the optical cable.
- The black polyethylene outer sheath has the characteristics of anti-ultraviolet radiation and environmental stress crack resistance, ensuring the service life of the optical cable.



## Product Specifications and Structure

Type	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYFY-4F	4	6	1	5	88
GYFY-6F	6	6	1	5	89
GYFY-12F	6	6	2	4	90
GYFY-24F	6	6	4	2	90
GYFY-36F	6	6	6	0	93
GYFY-48F	12	6	4	2	102
GYFY-72F	12	6	6	0	104
GYFY-96F	12	8	8	0	123
GYFY-120F	12	10	10	0	144
GYFY-144F	12	12	12	0	173
GYFY-216F	12	1+6+12	18	0	206
GYFY-288F	12	1+9+15	24	0	241

Notes: 1.The parameters in the table are typical structural parameters of GYFY, Our company can provide 2~144 core GYFY optical cables with any specifications or special structural parameters.

2.F is the fiber type.

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	—	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bend radius Static/dynamic	mm	10D/20D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60



Note: D is the diameter of cable.

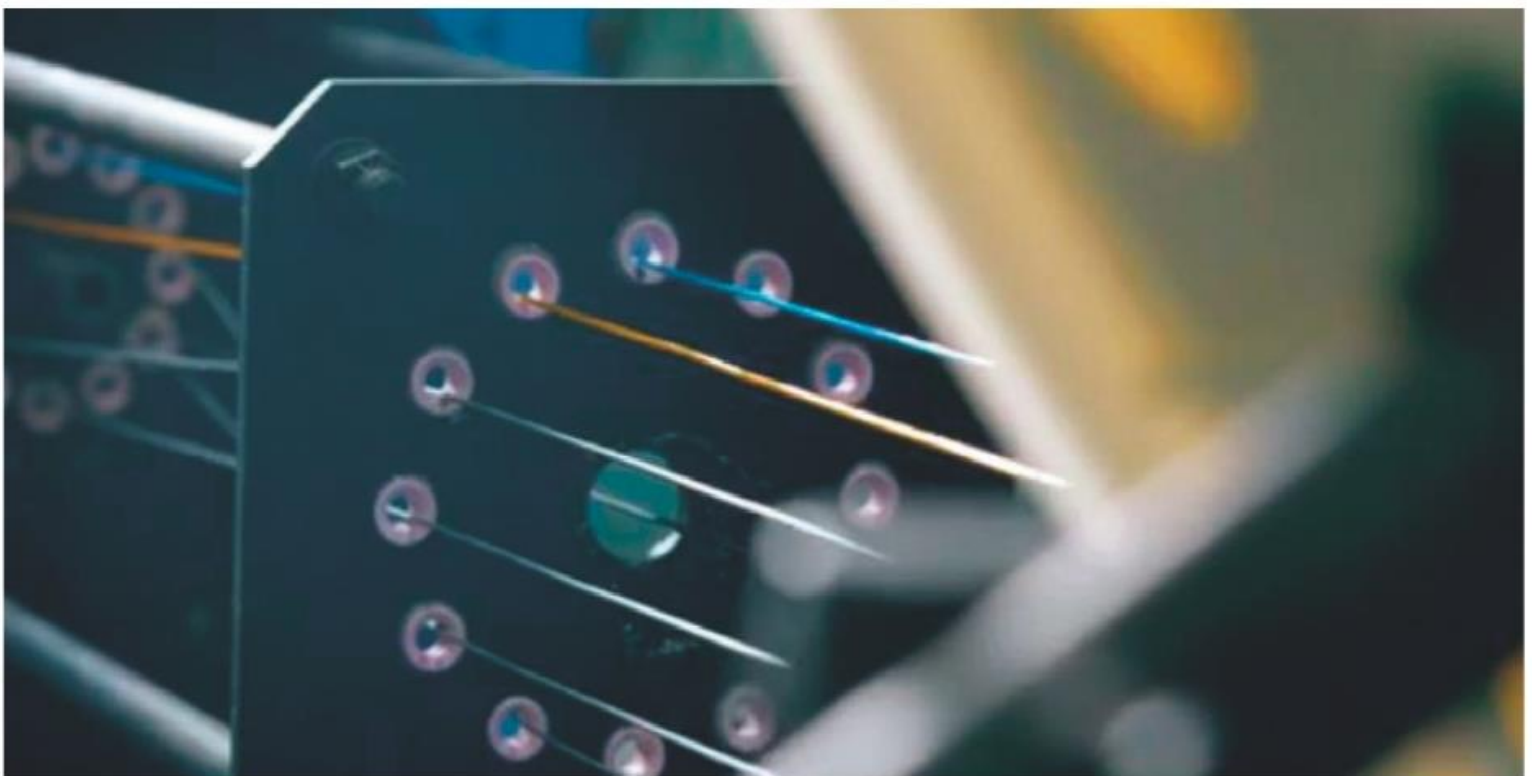
## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables

## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

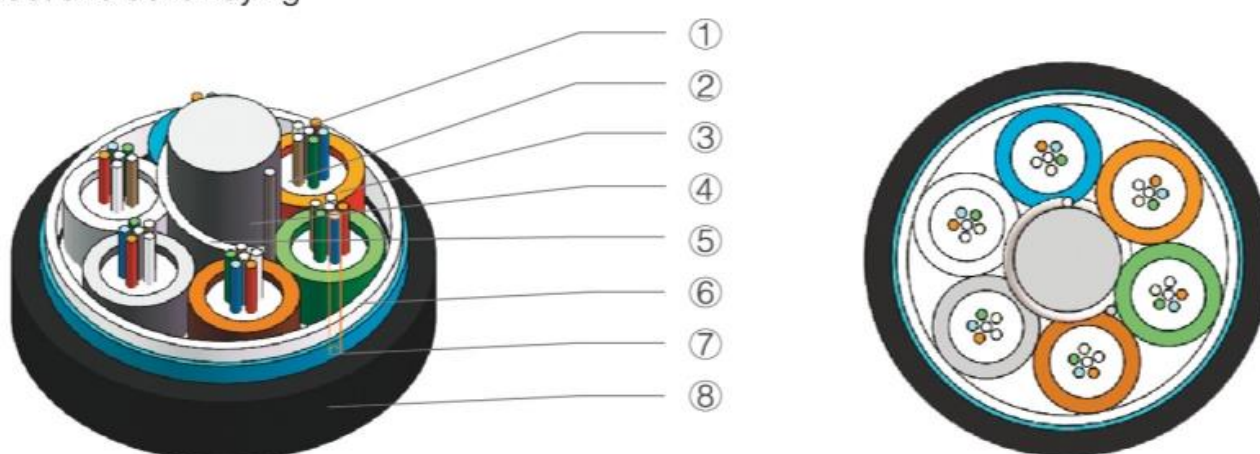
Note: Company can accept product customization with special performance requirements of this model.



## (Semi-dry or All-dry) Steel Tape Armored Non-metallic Stranded Loose Tube Optical Cable (GYFS)

### Applications

- Duct and aerial laying



#### GYFS

- 1.Optical Fiber 2.Gel 3.Loose Tube 4.FRP 5.Water-Blocking Yarn  
6.Water-Blocking Tape 7.Steel Tape 8.PE Outer Sheath

### Cable Description

Optical Fibers are housed in loose tubes that are made of PBT, PP or TPEE and filled with tube filling compound. The loose tube and possible fillers surround the central non-metallic strengthening member to form the cable core by SZ stranding. The cable core is armored with aluminum tape. Fill the water-blocking compound between the cable core and the aluminum tape. Then a PE outer sheath is extruded.

### Features

- The material of loose tubes with good hydrolysis and lateral compression resistance. The loose tube is filled with gel to protect the optical fiber and ensure longitudinal water resistance
- Accurate process control of optical fiber excess-length and cable core structure excess length ensuring good mechanical and temperature performances.
- Water blocking gel and compound ensure the longitudinal water blocking performance of the optical cable. The APL improves the moisture resistance of the optical cable and prevents the external moisture of the optical cable from penetrating into the cable core.



- The black PE outer sheath has anti-ultraviolet radiation performance and environmental stress crack resistance performance, ensuring the service life of the optical cable.

## Product Specifications and Structure

Type (PBT Loose Tube)	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYFS-6~36F	6	6	1~6	5~0	141
GYFS-48~72F	12	6	4~6	2~0	149
GYFS-96F	12	8	8	0	178
GYFS-144F	12	12	12	0	241
GYFS-216F	12	1+7+13	18	2	231
GYFS-288F	12	1+9+15	24	0	266

Type (PP/TPEE Loose Tube)	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYFS-6~36F	6	6	1~6	5~0	154
GYFS-48~72F	12	6	4~6	2~0	155
GYFS-96F	12	8	8	0	194
GYFS-144F	12	12	12	0	277
GYFS-216F	12	1+7+13	18	2	258
GYFS-288F	12	1+9+15	24	0	298

Note:

1.The parameters in the table are typical structural parameters of GYFS. Our company can provide 2~288 GYFS optical cables with any specifications or special structural parameters.

2.F is optical fibertype.

## Optical Characteristics

Fiber type	Attenuation coefficient		Mode field diameter @1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	—	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$



## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bending radius Dynamic/static	mm	10D/20D
Environmental Character	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

Note: D is the diameter of optical cable.

## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables

## Delivery Length

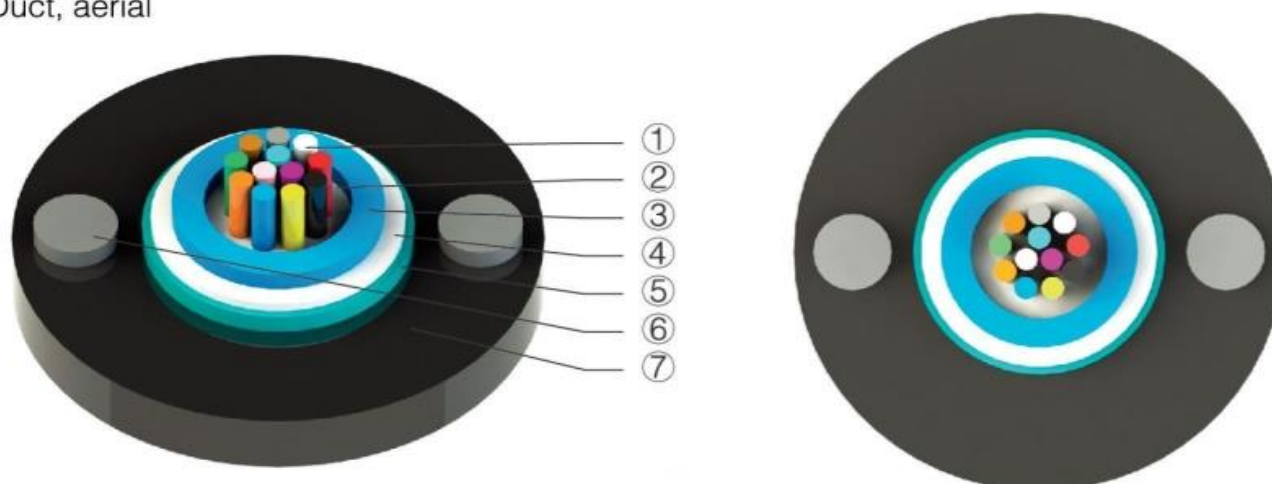
Standard length: 2km, 3km, 4km; Other lengths are also available according to customer requirements.

Note: Our company can accept product customization with special performance requirements of this model.

## Central Loose Tube Armored Optical Cable (GYXTW)

### Applications

- Duct, aerial



### GYXTW

1.Fiber 2.Gel 3.Loose Tube 4.Water Blocking Compound  
5.Steel Tape 6.Steel Wire 7.PE Outer Sheath

### Cable Description

The colored optical fiber into a loose tube made of high modulus hydrolysis resistant material, and the tube is filled with a thixotropic water-blocking fiber paste to form an optical fiber loose tube. The tube is longitudinally wrapped with steel tape, and water blocking compound is filled between the steel tape and the loose tube. Place two parallel steel wire reinforcements on both sides of the steel tape, and then extrude the PE outer sheath.

### Features

- Loose tube material has good hydrolysis resistance and lateral pressure resistance. The loose tube is filled with a thixotropic water-blocking fiber paste to buffer and protect the optical fiber and realize the full cross-section water blocking in the loose tube.
- Two parallel steel wires are embedded in the sheath to ensure the stability and tensile strength of the cable structure.
- Small structure, light weight, and easy to install.
- The black polyethylene outer sheath has the characteristics of anti-ultraviolet radiation and environmental stress crack resistance, ensuring the service life of the optical cable.



- The water-blocking fiber paste and water-blocking cable paste realize the full cross-section water blocking of the internal gaps of the optical cable structure and ensure the longitudinal water blocking performance of the optical cable. The PSP improves the moisture resistance of the optical cable and prevents the external moisture from penetrating into the cable core.

## Product Specifications and Structure

Type	Fiber count/Tube	Cable weight (kg/km)
GYXTW-2~6F	2~6	86
GYXTW-8F	8	97
GYXTW-12F	12	101
GYXTW-16F	16	111
GYXTW-24F	24	113

Notes: 1.The parameters in the table are typical structural parameters of GYXTW, Our company can provide 2~144 core GYXTW optical cables with any specifications or special structural parameters.

2. F is the fiber type.

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	-	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bend radius Static/dynamic	mm	10D/20D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60



Note: D is the diameter of cable.

## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables

## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

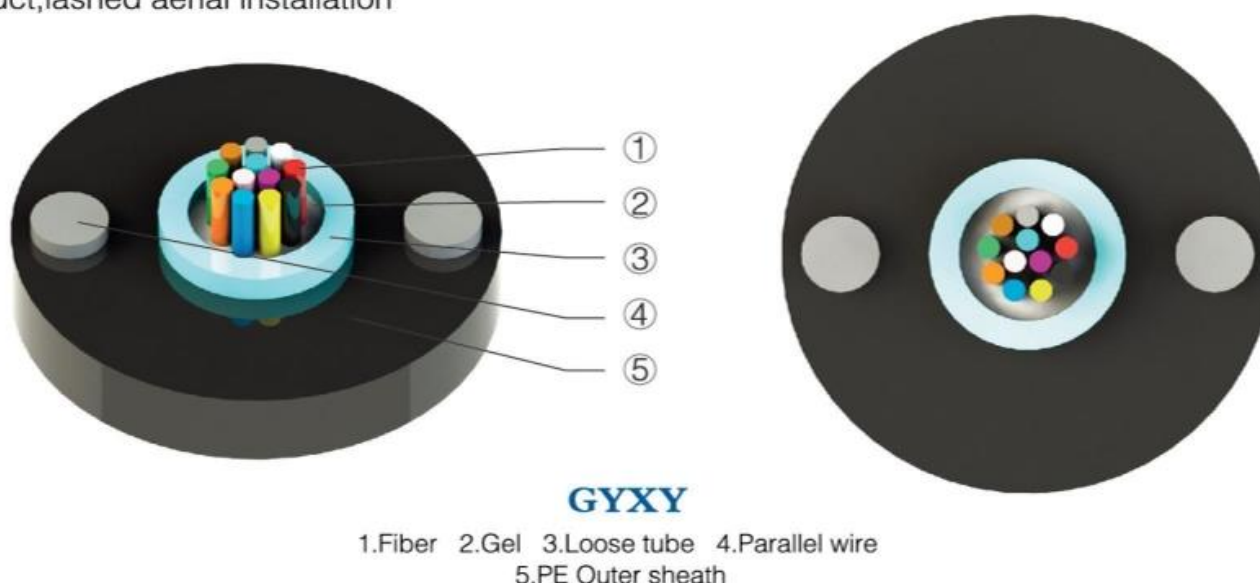
Note: Company can accept product customization with special performance requirements of this model.



## Central Loose Tube Un-Armored Optical Cable (GYXY)

### Applications

- Duct, lashed aerial installation



### Cable Description

The colored optical fiber into a loose tube made of high modulus hydrolysis resistant material, and the tube is filled with a thixotropic water-blocking fiber paste to form an optical fiber loose tube. The PE outer sheath is extruded from the loose tube, and two parallel steel wire reinforcements are embedded in the sheath.

### Features

- Loose tube material has good hydrolysis resistance and lateral pressure resistance. The loose tube is filled with a thixotropic water-blocking fiber paste to buffer and protect the optical fiber and realize the full cross-section water blocking in the loose tube.
- The parallel wire is embedded in the sheath, giving the cable good tensile and lateral pressure resistance performance.
- Small structure, light weight, and easy to install.
- The black polyethylene outer sheath has the characteristics of anti-ultraviolet radiation and environmental stress crack resistance, ensuring the service life of the optical cable.



## Product Specifications and Structure

Type	Number of fiber cores/tube	Cable weight (kg/km)
GYXY-2~12F	2~12	69
GYXY-16F	16	76
GYXY-24F	24	82

Notes:

1.The parameters in the table are typical structural parameters of GYXY, Our company can provide 2~144 core GYXY optical cables with any specifications or special structural parameters.

2.F is the fiber type.

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu m$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	—	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bend radius Static/dynamic	mm	10D/20D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

Note: D is the diameter of cable.



## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables.

## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

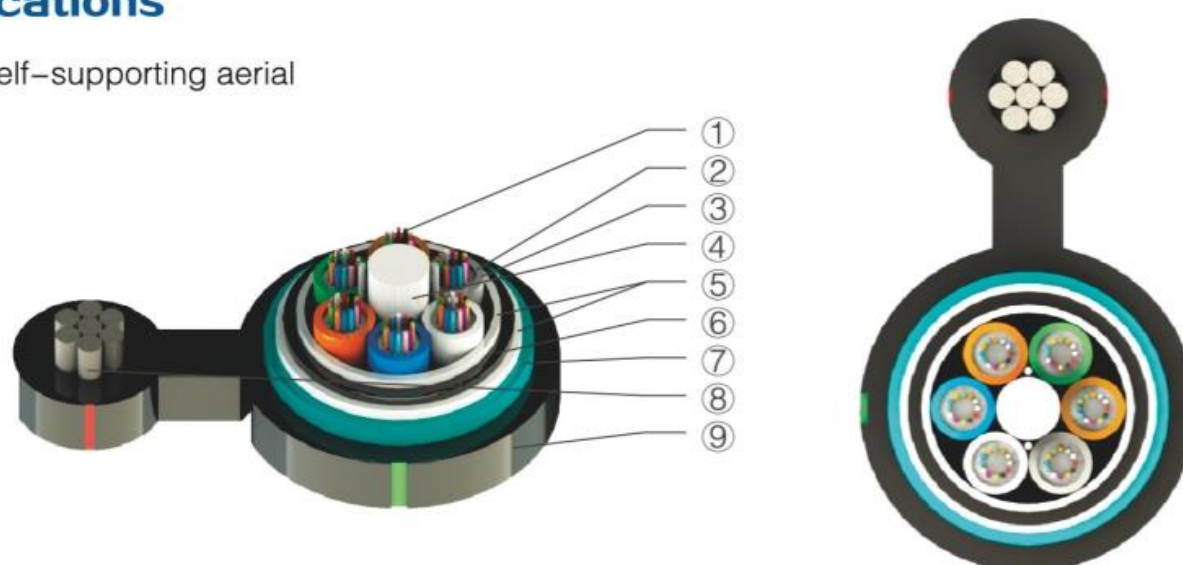
Note: Company can accept product customization with special performance requirements of this model.



## Figure-8 Self-Supporting Armored Optic Cable (GYC8Y53)

### Applications

- Self-supporting aerial



### GYC8Y53

1. Optical Fiber 2. Gel 3. Loose Tube 4. FRP 5. Water Blocking Tape  
6. Inner Sheath 7. Steel Tape 8. Galvanized Steel Strand 9. Outer Sheath

### Cable Description

Optical fibers are housed in loose tube that are made of high-modulus hydrolysis resistant plastic and filled with gel. The loose tubes surround a non-metallic strengthen member and is twisted by SZ to form a cable core longitudinally with a water-blocking tape, and the PE inner sheath is extruded on the cable core. After longitudinal covering the water-blocking tape and double-sided plastic-coated corrugated steel tape, a steel strand is placed on one side as a supporting wire, and PE outer sheath is extruded together with the hanging wire and the cable core.

### Features

- The loose tube material has good hydrolysis resistance and lateral pressure resistance. The loose tube is filled with thixotropic water-blocking gel to buffer and protect the optical fiber and block water in the whole section.
- The precise control of the excess length of the optical fiber in the loose tube and the excess length of the cable core structure to ensures that the optical cable meets the tensile performance and temperature characteristics required by the product standard.
- The water-blocking fiber gel and water-blocking cable gel realize the full cross-section water blocking of the internal gaps of the optical cable structure and ensure the longitudinal water blocking performance of the optical cable. Plastic-coated aluminum tape and plastic-coated steel tape improve the moisture resistance of the optical cable and prevent the external moisture of the optical cable from penetrating into the cable core.





- The black PE outer sheath has anti-ultraviolet radiation performance and environmental stress crack resistance performance, ensuring the service life of the optical cable.
- The optical cable is a self-supporting structure, which is laid overhead one-time to reduce installation costs.
- The optical cable sheath can be marked with color bars for customers to distinguish optical cables. The color and quantity of the color bars can be customized according to customer needs.

## Product Specifications and Structure

Type	Maximum allowable tension MAT (N)	Fiber count/Tube	Stranding unit	Cable weight (kg/km)
GYFC8Y53-6~30F	6000	6	5	209
GYFC8Y53-36~60F	7000	12	5	223
GYFC8Y53-72F	8000	12	6	223
GYFC8Y53-96F	10000	12	8	254
GYFC8Y53-144F	10000	12	12	320

## Optical Characteristics

Fiber type	Attenuation coefficient		Mode field diameter @1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	—	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	See the table above
	Crush Long/short term	N/100 mm	1100/2200
	Bending radius Dynamic/static	mm	10D/20D
Environmental Characteristics	Operation	℃	-40~+70
	Shipping and storage	℃	-40~+70
	Installation	℃	-10~+40



## Product Standard

IEC 60794-3-20-2009 Part 3-20: Optical fibre cables Outdoor cables – Family specification for self-supporting aerial telecommunication cables and YD/T 1155-2011 Fig-8 self-support optical fiber cables for outdoor telecommunications.

## Delivery Length

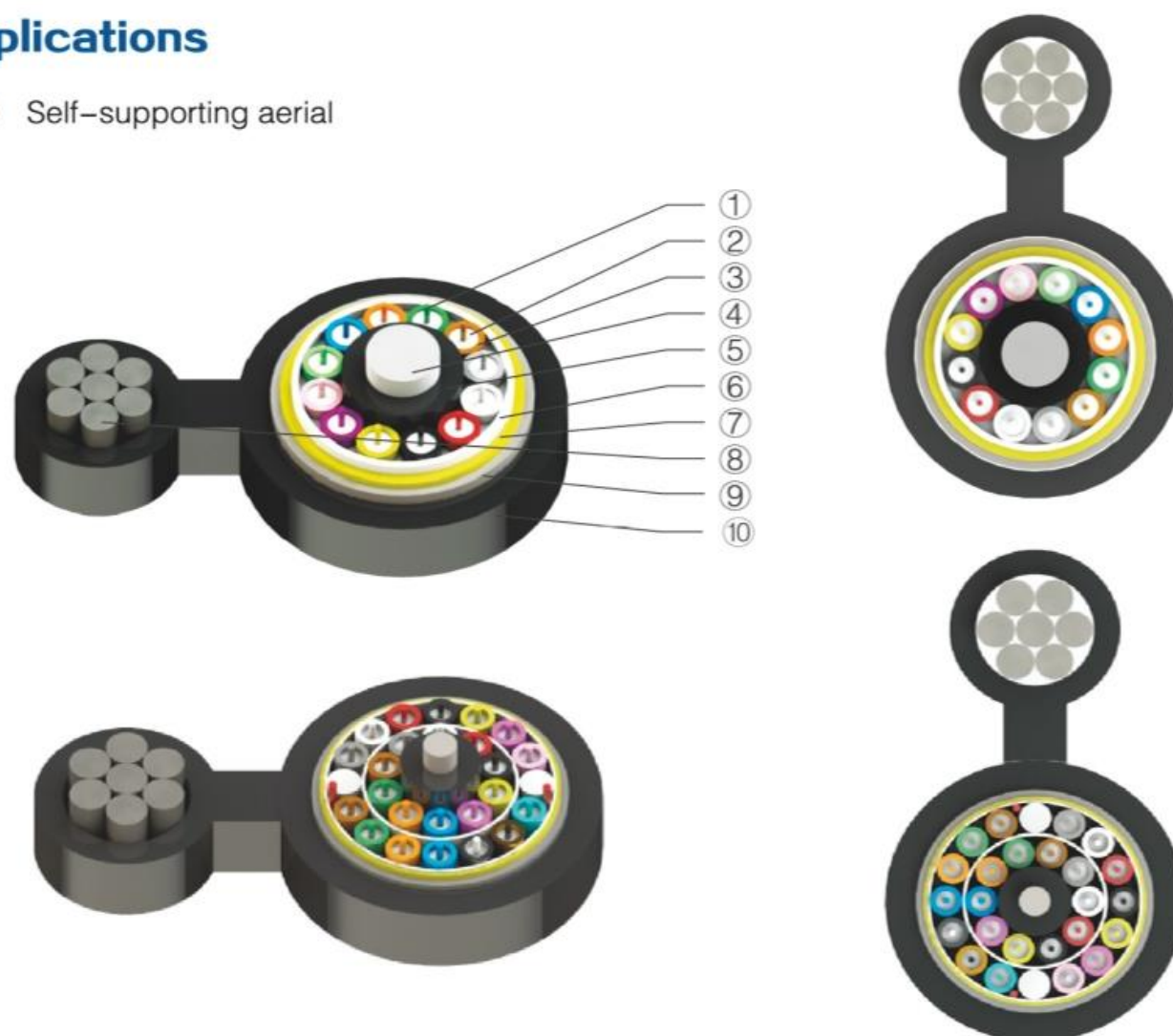
Standard length: 2km, 3km, 4km; Other lengths are also available according to customer requirements.



## Figure-8 Self-Supporting Light Armored OpticCable(GYFC8A)

### Applications

- Self-supporting aerial



### GYFC8A

- 1.Optical Fiber 2.Gel 3.Loose Tube 4.FRP 5.Cushion 6.Water-Blocking Tape  
7.Aramid Yarn 8.Steel Strand 9.Aluminum Tape 10.Outer Sheath

### Cable Description

Optical Fiber are housed in loose tube that are made of high-modulus hydrolysis resistant plastic. The optical cable adopts a structure design of one core and one tube, and the tube is filled with gel. The loose tubes surround a non-metallic strengthen member by SZ stranding, a steel strand is housed on one side as a hanging wire and the PE outer sheath is extruded together with the hanging wire and the cable core.



## Features

- Good structural design and precise process control ensure that the optical cable has good mechanical and temperature performance.
- Easy for self-supporting aerial installation, reducing installation costs.
- Excellent resistance to lateral pressure.
- The black PE outer sheath has anti-ultraviolet radiation performance and environmental stress crack resistance performance, ensuring the service life of the optical cable.
- The loose tube is filled with thixotropic gel to ensure the longitudinal water blocking performance of the optical cable.



## Product Specifications and Structure

Type	Maximum allowable tension MAT (N)	Fiber count/Tube	Stranding unit	Cable weight (kg/km)
GYFC8A-12F	6000	1	1+12	186
GYFC8A-24F	7000	1	1+10+16	213

## Optical Characteristics

Fiber type	Attenuation coefficient		Mode field diameter @1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	≤0.36	≤0.22	(8.6–9.4) ± 0.6	≤1260
G.655	–	≤0.25	(8.0–11.0) ± 0.6	≤1450

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	See the table above
	Crush Long/short term	N/100 mm	1100/2200
	Bending radius Dynamic/static	mm	10D/20D



# Technical and Environmental Characteristics

	Item	Unit	Parameter
Environmental Characteristics	Operation	℃	-40~+70
	Shipping and storage	℃	-40~+70
	Installation	℃	-10~+40

# Product Standard

YD/T 1155-2011 Fig-8 self-support optical fiber cables for outdoor telecommunications

# Delivery Length

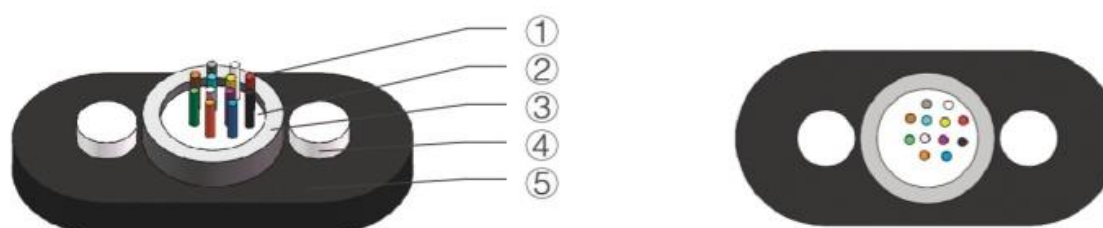
Standard length: 2km, 3km,4km; Other lengths are also available according to customer requirements.



## Flat-shape & Self-supporting Optical Cable (GYQFXTBY)

### Applications

- Self supported aerial installation
- Used in lightning-prone areas



**GYQFXTBY**

1.Fiber 2.Gel 3.Loose tube 4.FRP 5.Sheath

### Cable Description

Lightweight flat self-supported overhead lightning protection cable is to sleeve 250  $\mu$  m colored optical fiber into a loose tube made of high modulus material, fill the tube with thixotropic water-blocking fiber paste, place two FRPs in parallel outside the tube, and finally extrude into a flat polyethylene sheath.

### Features

- Excellent structural design and precise process control ensure that the optical cable has good technical and temperature characteristics.
- Unique plane shape, with excellent compressive performance.
- The cable has small structure, light weight and is easy to install.
- All-dielectric design, suitable for lightning-prone areas.



### Product Specifications and Structure

Type	Fiber count/Tube	Loose tube	Cable weight (kg/km)
GYQFXTBY -2~12F	2~12	1	31
GYQFXTBY-14~24F	14~24	1	48

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{\text{cc}}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	—	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	300/600
	Crush Long/short term	N/100 mm	300/1000
	Bend radius Static/dynamic	mm	10W/20W
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

Note: W is the cable width.

## Product Standard

IEC 60794-3-20-2009 Part 3-20: Optical fibre cables Outdoor cables – Family specification for self-supporting aerial telecommunication cables and YD/T 1155-2011 Fig-8 self-support optical fiber cables for outdoor telecommunications.

## Delivery Length

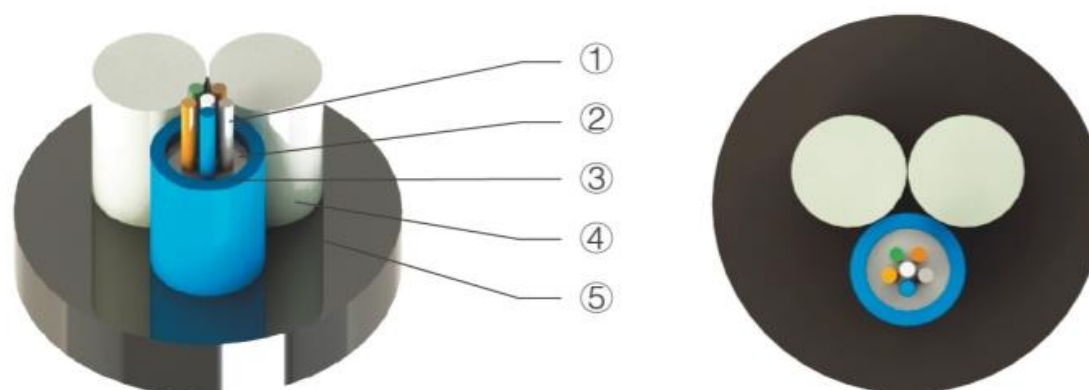
Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.



## All Dielectric Stranded Loose Tube Three Units Optical Cable (GYFY)

### Applications

- Self supported aerial installation



**GYFY**

1.Fiber 2.Gel 3.Loose Tube 4.FRP 5.Sheath

### Cable Description

The three-unit FRP stranded optical cable is to put colored optical fibers into a loose tube made of high modulus hydrolysis resistant material, the tube is filled with thixotropic water-blocking fiber paste, the loose tube and two FRP units are twisted into a cable core. A water blocking yarn is placed around the core to block water, and finally a polyethylene sheath is extruded.

### Features

- Loose tube material has good hydrolysis resistance and lateral pressure resistance. The loose tube is filled with a thixotropic water-blocking fiber paste to buffer and protect the optical fiber and realize the full cross-section water blocking in the loose tube.
- The precise control of the fiber residual in the loose tube and cable core structural residual ensures that the optical cable meets the tensile performance and temperature characteristics required by the product standard.
- The black polyethylene outer sheath has the characteristics of anti-ultraviolet radiation and environmental stress crack resistance, ensuring the service life of the optical cable.
- All dielectric design, suitable for lightning-prone areas.
- Small structure, light weight, mostly used for small span self-supported installation.



## Product Specifications and Structure

Type	Fiber count/Tube	Loose tube	Cable weight (kg/km)
GYFY-2~12F	2~12	1	50

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	—	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bend radius Static/dynamic	mm	10D/20D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

## Product Standard

IEC 60794-3-20-2009 Part 3-20: Optical fibre cables Outdoor cables – Family specification for self-supporting aerial telecommunication cables and YD/T 1155-2011 Fig-8 self-support optical fiber cables for outdoor telecommunications.

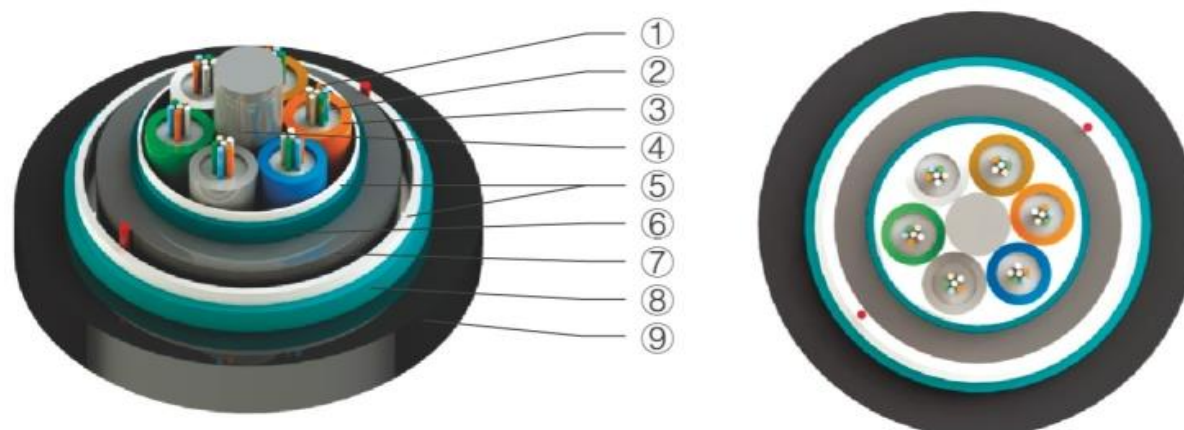
## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

## (Semi-dry) Fire-resistance Stranded Loose Tube Armored Optical Cable (GYHTA(H)58)

### Applications

- Buried
- Urban rail transit
- Cable into the bureau



### GYHTAH58

1.Fiber 2.Gel 3.Loose Tube 4.Steel Wire 5.Water-Blocking Tape  
6.Aluminium Tape 7.Inner Sheath 8.Steel Tape 9.Outer Sheath

### Cable Description

The structure of GYHTAH58 cable is to sheath 250μm optical fiber into a loose tube made of high modulus material, and the loose tube is filled with waterproof compound. The center of the cable core is a metal reinforced core. For some fiber optic cables, a layer of PE needs to be squeezed outside the metal reinforced core. The loose tube and the filling rope are twisted around the central reinforcing core to form a compact and circular cable core, and the gaps in the cable core are filled with water blocking fillers. Plastic-coated aluminum tape (APL) is longitudinally wrapped and then extruded to form a flame-retardant inner sheath, and double-sided plastic-coated steel tape (PSP) is longitudinally wrapped to form a flame-retardant outer sheath.



## Features

- The loose tube material has good hydrolysis resistance and lateral pressure resistance. The loose tube is filled with thixotropic water-blocking fiber paste to buffer the optical fiber, which plays a key role in protecting the optical fiber.
- The precise control of the fiber residual in the loose tube and cable core structural residual ensures that the optical cable meets the tensile performance and temperature characteristics required by the product standard.
- The central strengthening member of phosphating steel wire has high modulus and corrosion resistance.
- Longitudinal-clad double-sided film-coated corrugated steel tape armor, which effectively improves the ability of optical cable to resist lateral pressure and has good moisture resistance.
- LSZH sheath has good flame retardant performance and environmental stress cracking resistance.



## Product Specifications and Structure

Type (PE sheath)	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYHTA58-6 ~ 36F	6	6	1 ~ 6	5 ~ 0	176
GYHTA58-48 ~ 72F	12	6	4 ~ 6	2 ~ 0	212
GYHTA58-96F	12	8	8	0	247
GYHTA58-144F	12	12	12	0	321
GYHTA58-216F	12	1+6+12	18	0	291
GYHTA58-288F	12	1+9+15	24	0	346

Type (LSZH sheath)	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYHTAH58-6 ~ 36F	6	6	1 ~ 6	5 ~ 0	211
GYHTAH58-48 ~ 72F	12	6	4 ~ 6	2 ~ 0	232
GYHTAH58-96F	12	8	8	0	269
GYHTAH58-144F	12	12	12	0	345
GYHTAH58-216F	12	1+6+12	18	0	335
GYHTAH58-288F	12	1+9+15	24	0	395

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	—	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	900/2700
	Crush Long/short term	N/100 mm	1000/3000
	Bend radius Static/dynamic	mm	12.5D/25D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables

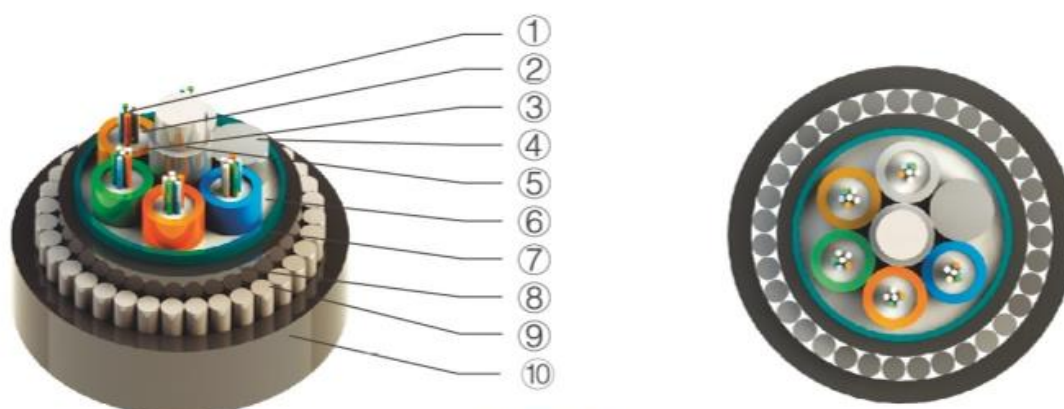
## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

## Multi-armored Stranded Loose Tube Optical Cable (GYTS33)

### Applications

- Buryied, climbing, etc.
- Need to prevent rodents in the wild.



**GYTS33**

1.Fiber 2.Gel 3.Loose Tube 4.Filling Rope (may have) 5.Centeral Reinforced Wire  
6.Water Blocking Compound 7.Steel Tape 8.Inner Sheath 9.Thin Round Wire 10.Outer Sheath

### Cable Description

GYTS33 puts the colored optical fiber into a loose tube made of high modulus hydrolysis resistant material, and the tube is filled with a thixotropic water-blocking fiber paste to form an optical fiber loose tube. The loose tube and a high-strength metal reinforced member are twisted into a compact and circular cable core. For some fiber optic cables, a layer of PE must be squeezed outside the metal reinforced core. The gaps in the cable core are filled with water blocking fillers. After longitudinally wrapping the plastic-coated steel tape, a layer of PE sheath is extruded, and then the single thin round wire is spirally twisted for armor, and finally the PE outer sheath is extruded into a cable.

### Features

- Loose tube material has good hydrolysis resistance and lateral pressure resistance. The loose tube is filled with a thixotropic water-blocking fiber paste to buffer and protect the optical fiber and realize the full cross-section water blocking in the loose tube.
- Longitudinally wrapped double-sided coated wrinkled aluminum tape, thin round steel wire wrapped armor, to ensure the mechanical compression and tensile resistance of the optical cable, meet the application requirements of climbing, buried, underwater laying, etc., and can prevent rodents and air guns from destroying optical cables.
- The black polyethylene outer sheath has the characteristics of anti-ultraviolet radiation and environmental stress crack resistance, ensuring the service life of the optical cable.





- The water-blocking fiber paste and water-blocking cable paste realize the full cross-section water blocking of the internal gaps of the optical cable structure and ensure the longitudinal water blocking performance of the optical cable.

## Product Specifications and Structure

Type	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYTS33-6-24F	6	5	1~4	4~0	565
GYTS33-36F	6	6	6	0	611
GYTS33-48F	12	5	4	1	660
GYTS33-72F	12	6	6	0	662
GYTS33-96F	12	8	8	0	764
GYTS33-144F	12	12	12	0	973

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{cc}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	—	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristic	Tensile strength Long/short term	N	4000/10000
	Crush Long/short term	N/100 mm	3000/5000
	Bending radius Static/dynamic	mm	12.5D/25D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

## Product Standard

IEC 60794-3-30-2008 Optical fibre cables – Part 3-30: Outdoor cables – Family specification for optical telecommunication cables for lakes, river crossings and coastal applications.

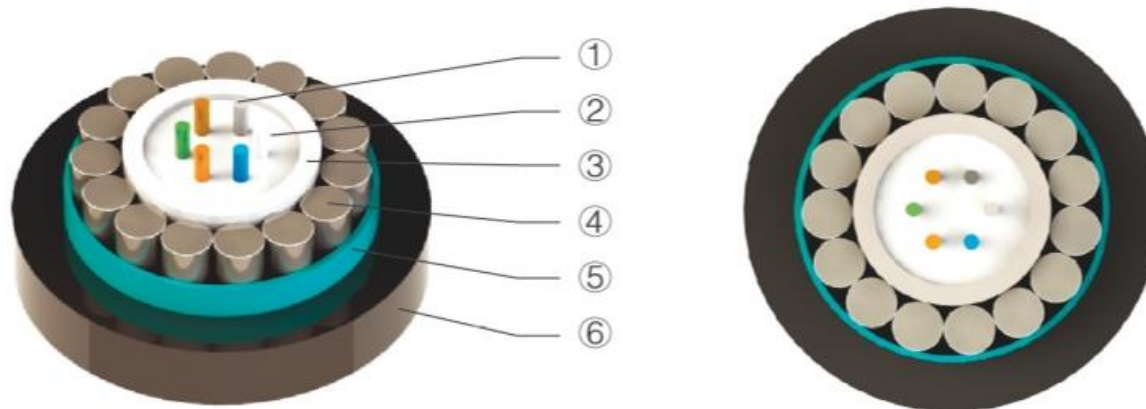
## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

## Central Loose Tube Anti-rodent Optical Cable (GYXTS)

### Applications

- Duct,lashed aerial
- Field wiring to be rat-proof



### GYXTS

1.Fiber 2.Gel 3.Loose tube 4.Steel wire 5.Steel tape 6.Sheath

### CableDescription

Single-mode/multi-mode fibers are housed in a loose tube that is made of high modulus polyester material and filled with waterproof compound. The loose tube is added with water-blocking material to ensure the longitudinal water seepage of the optical cable. After the steel wire is wrapped into the cable, the double-sided chrome-plated plastic-coated steel tape (PSP) is longitudinally wrapped, and then the PE sheath is extruded.

### Features

- The precise control of the fiber residual ensures that the optical cable has good mechanical and temperature performance.
- The material of loose tube with good hydrolysis resistance and relatively high strength.
- Tube filling compound providing key protection for fibers.
- Excellent crush resistance and flexibility.
- A layer of wrapped steel wire ensures the tensile strength of the optical cable and has better anti-rodent performance.
- PE sheath has good resistance to ultraviolet radiation.
- Small diameter, light weight, easy for installation.

## Product Specifications and Structure

Type	Fiber count/Tube	Loose tube	Cable weight (kg/km)
GYXTS-2~12F	2~12	1	106
GYXTS-14~24F	14~24	1	154

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_c$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	-	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bend radius Static/dynamic	mm	10D/20D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

## Product Standard

IEC 60794-3-10-2009 Optical fibre cables – Part 3-10: Outdoor cables – Family specification for duct, directly buried and lashed aerial optical telecommunication cables and YD/T 769-2018 Central gel-filled loose tube optical fibre cables for outdoor applications for telecommunication.

## Delivery Length

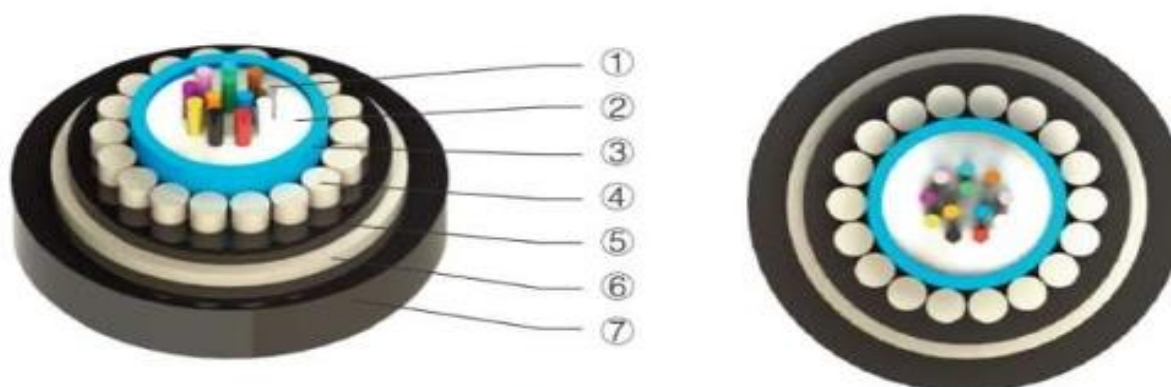
Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.



## Non-metallic Central Loose Tube Anti-thunder& Anti-rodent Optical Cable (GYQFXTY73)

### Applications

- Duct,lashed aerial
- Wiring scenarios with frequent thunderstorms
- Need to prevent rodents in the wild



**GYQFXTY73**

1.Fiber 2.Gel 3.Loose tube 4. FRP pole 5.Inner sheath 6.FRP tape 7.Outer sheath

### Cable Description

Single-mode/multi-mode fibers are housed in a loose tube that is made of high modulus polyester material and filled with waterproof compound. The loose tube is added with water-blocking material to ensure the longitudinal water seepage of the optical cable. The cable is made by wrapping the FRP pole outside the loose tube, and a PE inner sheath is extruded outside the cable core. After the FRP tape is wrapped longitudinally, the cable is made by extruding the polyethylene outer sheath.

### Features

- Loose tube material has good hydrolysis resistance and lateral pressure resistance. The loose tube is filled with a thixotropic water-blocking fiber paste to buffer and protect the optical fiber and realize the full cross-section water blocking in the loose tube.
- The black polyethylene outer sheath has the characteristics of anti-ultraviolet radiation and environmental stress crack resistance, ensuring the service life of the optical cable.

- The water-blocking fiber paste and water-blocking cable paste realize the full cross-section water blocking of the internal gaps of the optical cable structure and ensure the longitudinal water blocking performance of the optical cable.
- A layer of wrapped FRP ensures the tensile strength of the optical cable, and has a better protective effect on the loose tube.
- Wrapped FRP and FRP tape armor make the optical cable have excellent anti-rat performance.
- All dielectric fiber optic cable. No grounding, no lightning strikes.
- The precise control of the fiber residual ensures that the optical cable has good mechanical and temperature performance.
- Small diameter, light weight, easy for installation.



## Product Specifications and Structure

Type	Fiber count/Tube	Loose tube	Cable weight (kg/km)
GYQFXTY73-2~12F	2~12	1	123
GYQFXTY73-14~24F	14~24	1	133

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu m$ )	Cable cut-off wavelength ( $\lambda_c$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	-	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	900/2700
	Crush Long/short term	N/100 mm	1000/3000
	Bend radius Static/dynamic	mm	12.5/25D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

## Product Standard

IEC 60794-3-10-2009 Optical fibre cables – Part 3-10: Outdoor cables – Family specification for duct, directly buried and lashed aerial optical telecommunication cables and YD/T 769-2018 Central gel-filled loose tube optical fibre cables for outdoor applications for telecommunication.

## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

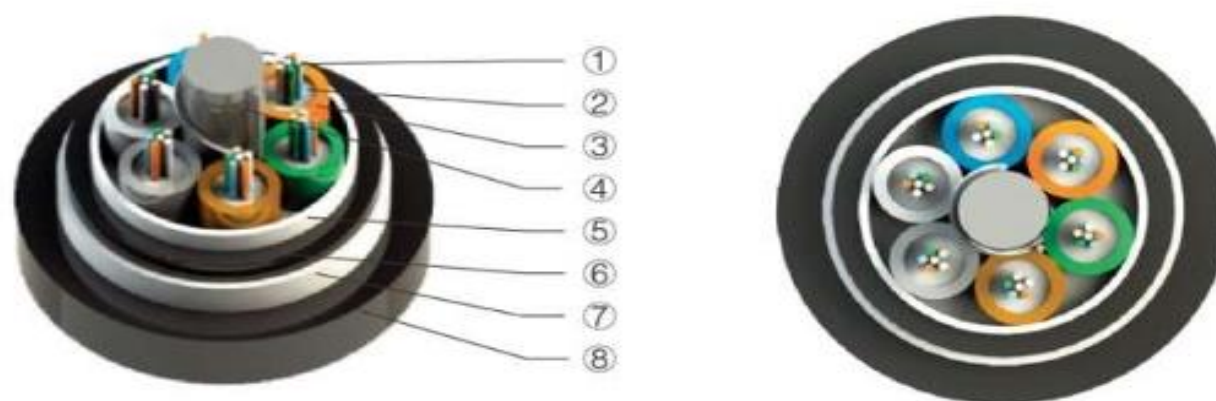




## (Semi-dry or All-dry)Non-metallic Anti-rodent Stranded LooseTube Optical Cable (GYFY63)

### Applications

- Duct, aerial, buried installation



**GYFY63**

- 1.Fiber 2.Gel 3.Loose Tube 4.FRP 5.Water Blocking tape  
6.Inner Sheath 7.Water Blocking Yarn 8.Outer Sheath

### Cable Description

In the GYFY63, the colored optical fiber is placed in a loose tube made of PBT PP or TPEE, and a special water-blocking fiber paste is placed in the loose tube to protect the optical fiber. The center of the cable core is a non-metallic reinforced core (FRP), and the loose tube (and filler rope) is twisted around the central reinforcement to form a compact circular cable core. The loose tube and the reinforced core are equipped with water-blocking yarn, the cable core is longitudinally wrapped with a water-blocking tape, and a polyethylene sheath is extruded. After being armored by FRP tape, a layer of polyethylene outer sheath is extruded into a cable. The optical cable of this structure is an all-dielectric non-metal structure, which is made of glass fiber reinforced plastic as an effective anti-rodent and anti-squirrel protective layer. Through structural optimization, the optical fiber cable core is miniaturized and the anti-rodent layer is heavy, which effectively ensures the anti-rodent and anti-squirrel performance.



## Features

- G-FRP effectively prevents damage by rats and squirrels.
- All dielectric structure, no electromagnetic induction, no electric conduction, safe to high voltage and lightning.
- Very small coefficient of thermal expansion.
- High elastic modulus, adaptable to large stress-strain behavior.

## Product Specifications and Structure

Type (PBT tube)	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYFY63-6-36F	6	6	1~6	5~0	119
GYFY63-48-72F	12	6	4~6	2~0	134
GYFY63-96F	12	8	8	0	163
GYFY63-144F	12	12	12	0	225

Type (PP/TPEE tube)	Fiber count/Tube	Stranding unit	Loose tube	Filler	Cable weight (kg/km)
GYFY63-6-36F	6	6	1~6	5~0	119
GYFY63-48-72F	12	6	4~6	2~0	148
GYFY63-96F	12	8	8	0	182
GYFY63-144F	12	12	12	0	255

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_{\text{cc}}$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.36$	$\leq 0.22$	$(8.6-9.4) \pm 0.6$	$\leq 1260$
G.655	-	$\leq 0.25$	$(8.0-11.0) \pm 0.6$	$\leq 1450$



## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	1000/3000
	Crush Long/short term	N/100 mm	1000/3000
	Bend radius Static/dynamic	mm	15/30D
Environmental Characteristics	Operation	℃	-40~+60
	Shipping and storage	℃	-40~+60
	Installation	℃	-10~+60

## Product Standard

IEC 60794-3-11-2010 Optical fibre cables – Part 3-11: Outdoor cables – Product specification for duct, directly buried, and lashed aerial single-mode optical fibre telecommunication cables

## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

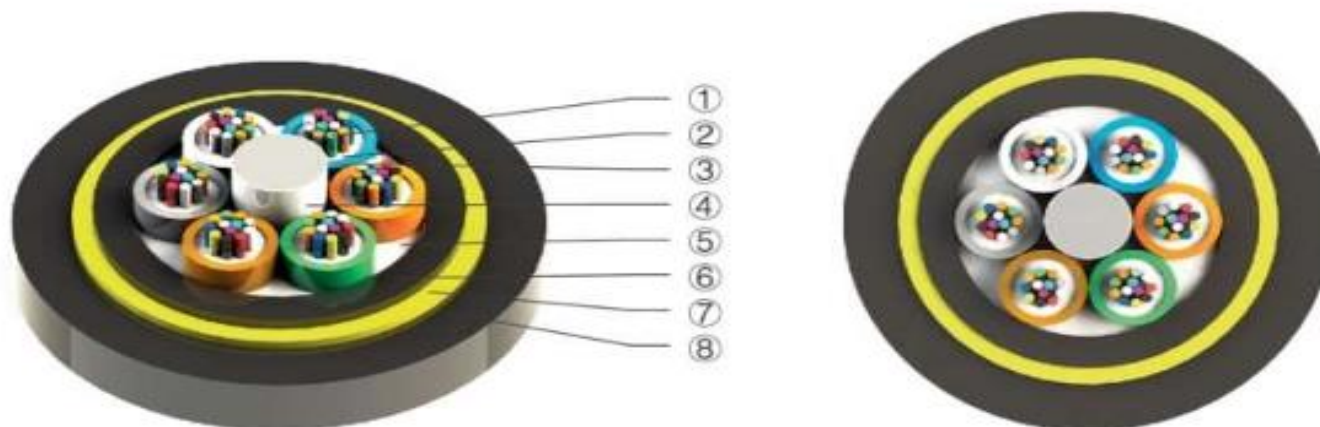




## All Dielectric Self-supporting Optical Fiber Cable(ADSS)

### Applications

- Self supported aerial installation
- Mainly used in high voltage transmission system



### ADSS

1.Fiber 2.Gel 3.Loose tube 4.FRP 5.Water Blocking Compound  
6.PE inner sheath 7.Aramid yarns 8.PE outer sheath(AT outer sheath)

### CableDescription

The all-dielectric self-supported ADSS cable is to put the colored optical fiber into a loose tube made of high modulus hydrolysis resistant material, and the tube is filled with a thixotropic water-blocking fiber paste to form an optical fiber loose tube. A plurality of loose tubes of optical fibers arranged according to the color order and possible fillers are surrounded by the central non-metal reinforcing core, and the water-blocking tape is longitudinally wrapped with SZ stranding to form the cable core. After the cable core is extruded with a polyethylene inner sheath, the aramid yarn is spirally twisted to increase the tensile performance of the optical cable, and then the high-density polyethylene or the trace-resistant outer sheath is extruded into a cable. Depending on the cable laying span and weather conditions, the ADSS cable sheath can be a single sheath or a double sheath.

## Features

- Precise control of fiber residual in loose tube and cable core structural residual ensures that the cable meets the tensile performance and temperature characteristics required by product standards.
- The cable adopts non-metallic structure and has strong anti-electromagnetic interference ability.
- If the cable is located in the interval potential is greater than 12kV,a special AT sheath is used, which has strong resistance to electric corrosion.
- Small weight, high tensile strength, can realize large span installation.
- Cold/in saline, MAT up to 35kN



## Product Specifications and Structure

Fiber number	Installation span	Typical weather conditions		MAT(N)	Cable weight (kg/km)
		wind speed (m/s)	Icing thickness (mm)		
ADSS-24F	50	25	0	800	65
ADSS-48F	100	25	0	1700	87
ADSS-72F	200	25	0	3700	128
ADSS-24F	300	25	0	4500	121
ADSS-24F	400	25	0	6000	137
ADSS-24F	500	25	0	8700	140

Notes:

1.The parameters in the table are typical structural parameters of ADSS,Our company can provide 2~144 core ADSS optical cables with any specifications or special structural parameters.

2.F is the fiber type.

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	≤0.36	≤0.22	(8.6~9.4) ± 0.6	≤1260
G.655	—	≤0.25	(8.0~11.0) ± 0.6	≤1450

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	According to the design
	Crush Long/short term	N/100 mm	1000/2200
	Bend radius Static/dynamic	mm	12.5D/20D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

Note: D is the diameter of cable.

## Product Standard

IEC60794-4-10-2014 Optical fibre cables – Part 4-10: Family specification – Optical ground wires (OPGW) along electrical power lines.

## Delivery Length

Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.

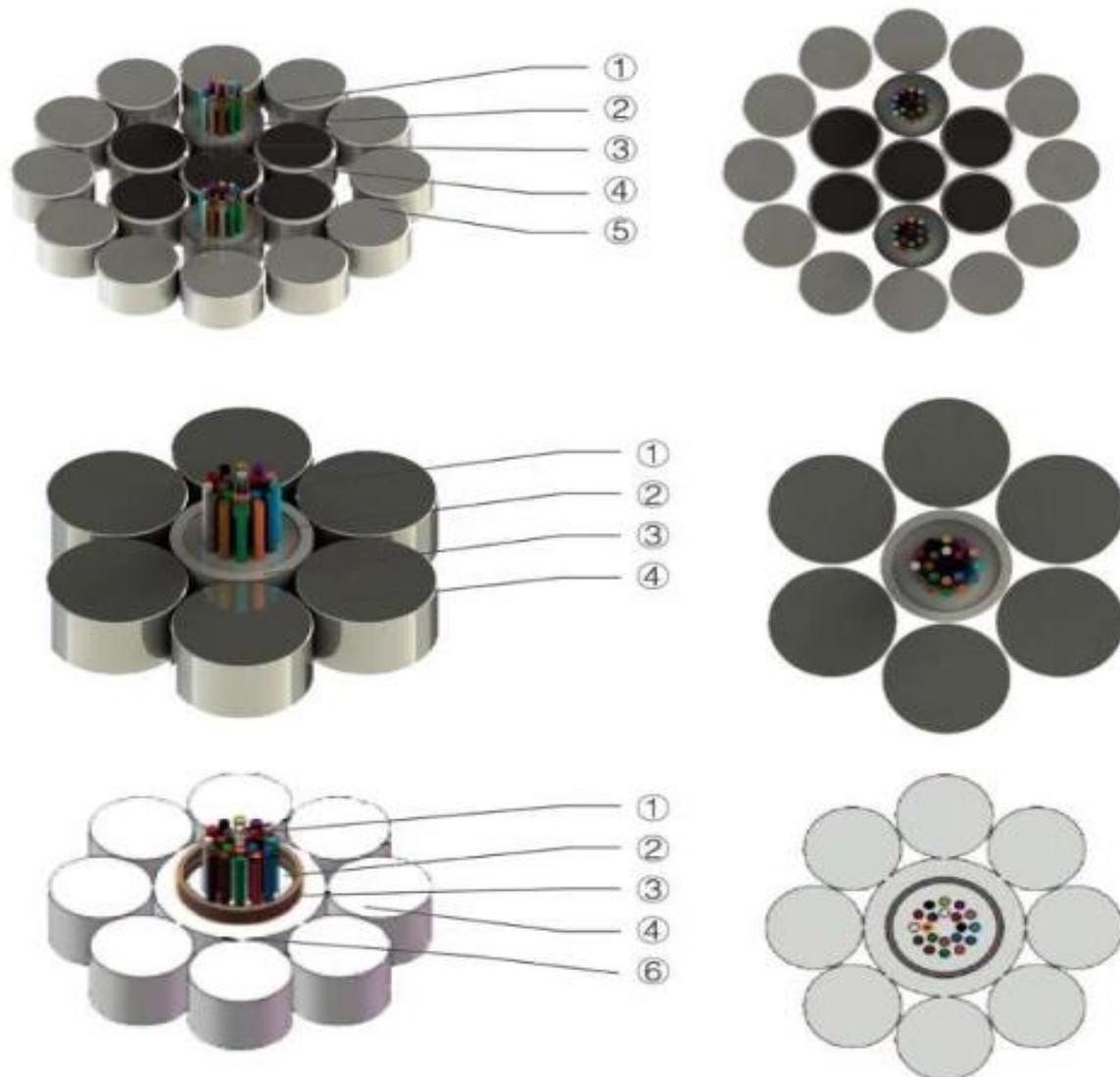




## Optical Fiber Composite Overhead Ground Wires(OPGW)

### Applications

- 35kV or more high voltage overhead transmission lines



### OPGW

- 1.Fiber 2.Hydrogen-absorbing fiber cream 3.Stainless steel pipe  
4.Aluminum clad steel wire 5.Aluminum alloy wire 6.Aluminum Tube

## Cable Description

Optical fiber composite overhead ground wires(OPGW)is an overhead ground wire containing optical fiber, mainly used for 35kV, 110kV, 220kV, 500kV, 750kV and communication lines for newly built overhead high-voltage power transmission systems. It also has overhead ground wire and optical communication functions.It can also be used to replace the existing ground wire of the old overhead high-voltage power transmission system, provide protection against lightning strikes for the poles and towers, and add optical communication lines.Commonly used optical fiber composite overhead ground wires (OPGW) are stranded, central tube and aluminum tube.



## Features

- The optic cable has small diameter, light weight, and low additional load on the tower;
- Optical fiber in stainless steel tube has a suitable residual length, and the OPGW has a stable structure and high reliability.
- High tensile strength and short circuit current capacity, good protection for optical fiber.
- With communication and grounding functions.

## Product Specifications and Structure

Type	Number of stranding units	Maximum number of fiber cores (F)	Conductor cross-sectional area (mm <sup>2</sup> )	Outer diameter (mm)	RTS (KN)	20℃ DC resistance (Ω/km)	Allowable short circuit current capacity 40 ~ 200℃ KA <sup>2</sup> .S	Cable weight (kg/km)
OPGW-48F -90- [ 112;45 ]	1/2.6/20AS+ 4/2.5/20AS+ 11/2.8/20AS sus tube2/2.5	48	90	13.2	≥112	≤0.98	≥45	≤641
OPGW-24F -100- [ 118;50 ]	1/2.6/20AS+ 5/2.5/20AS+ 11/2.8/20AS sus tube1/2.5	24	100	13.2	≥118	≤0.93	≥50	≤674
OPGW-24F -110- [ 140;68 ]	1/2.8/20AS+ 5/2.7/20AS+ 11/3.05/20AS sus tube1/2.6	24	110	14.3	≥140	≤0.80	≥68	≤791
OPGW-72F -120- [ 96;101 ]	1/3.2/30AS+ 4/3.0/30AS+ 12/3.0/30AS sus tube2/2.9	72	120	15.2	≥96	≤0.53	≥101	≤711

## Product Specifications and Structure

Type	Number of stranding units	Maximum number of fiber cores (F)	Conductor cross-sectional area (mm <sup>2</sup> )	Outer diameter (mm)	RTS (KN)	20°C DC resistance (Ω/km)	Allowable short circuit current capacity 40 ~ 200°C KA <sup>2</sup> .S	Cable weight (kg/km)
OPGW-36F -130- [ 102;114 ]	1/3.2/30AS+ 5/3.0/30AS+ 12/3.0/30AS sus tube1/2.9	36	130	15.2	≥102	≤0.50	≥114	≤751
OPGW-36F -140- [ 175;100 ]	1/3.3/20AS+ 5/3.2/20AS + 12/3.2/20AS sus tube1/3.1	36	140	16.1	≥175	≤0.65	≥100	≤995
OPGW-48F -150- [ 95;195 ]	1/3.4/40AS+ 5/3.3/40AS+ 12/3.3/40AS sus tube1/3.2	48	150	16.6	≥95	≤0.33	≥195	≤747
OPGW-48F -180- [ 211;175 ]	1/3.8/20AS+ 5/3.6/20AS + 12/2.6/20AS sus tube1/3.5	48	180	18.2	≥211	≤0.50	≥175	≤1255
OPGW-24F -40- [ 51;9 ]	6/3.0/20AS, sus tube1/3.0	24	40	9.0	≥51	≤2.10	≥9	≤304
OPGW-24F -50- [ 58;11.5 ]	6/3.2/20AS sus tube1/3.2	24	50	9.6	≥58	≤1.82	≥11.5	≤345
OPGW-48F -70- [ 77;24 ]	6/3.8/20AS sus tube1/3.8	48	70	11.4	≥77	≤1.30	≥24	≤475
OPGW-48F -70- [ 42;38 ]	6/3.8/40AS sus tube1/3.8	48	70	11.4	≥42	≤0.70	≥38	≤340
OPGW-48F -60- [ 48;25.0 ]	9/2.65/27AS sus tube1/3.4sus tube+1/5.2 Aluminum tube	48	60	10.5	≥48	≤0.96	≥25	≤335
OPGW-48F -175- [ 65;270.0 ]	4/3.1/27AS+ 4/3.1/AAL, 14/3.1/AAL sus tube1/3.4 sus tube+1/5.0 Aluminum tube	48	174	17.4	≥65	≤0.208	≥270	≤590



Note: Company can design OPGW cable structure to meet the requirements of users.

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD ( $\mu\text{m}$ )	Cable cut-off wavelength ( $\lambda_c$ ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	$\leq 0.35$	$\leq 0.21$	$(8.6-9.5) \pm 0.6$	$\leq 1260$
G.655	-	$\leq 0.22$	$(8.0-11.0) \pm 0.6$	$\leq 1450$

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	RTS	kN	According to the design
	Maximum crush	N/100 mm	2200/ Or customers' request
	Bend radius Static/dynamic	mm	15D/20D
Electrical characteristics	Maximum short circuit current capacity (40°C~200°C)	(kA <sup>2</sup> s)	According to the design
Environmental Characteristics	Operation	°C	-40~+65
	Shipping and storage	°C	-40~+65
	Installation	°C	-10~+50

Note: D is the diameter of cable.

## Product Standard

IEC60794-4-10-2014 Optical fibre cables – Part 4-10: Family specification – Optical ground wires (OPGW) along electrical power lines

## Delivery Length

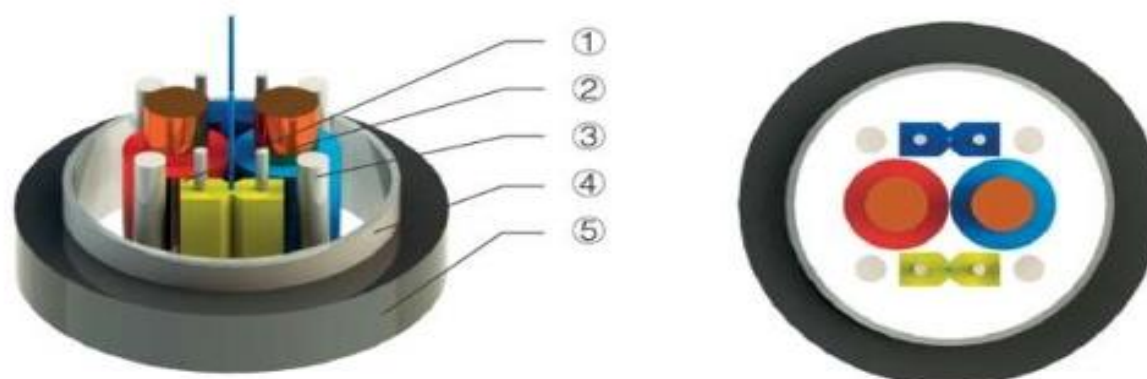
Recommended length: 1km, 2km; Other lengths are also available according to the customers' requirements.

Note: Company can accept product customization with special performance requirements of this model.

## Metallic Drop cable Hybrid Optical and Electrical Cable (GDJH)

### Applications

- Remote unattended computer room
- Community computer room
- Mobile base station



**GDJH**

1.Drop cable optical unit 2.Copper wire 3.Filler 4.tape 5.Sheath

### Cable Description

The GDJH(V) is made of optical fibers and two parallel metallic strength member into a drop cable LZSH sheath. The drop cable optical cable and the insulated copper wire of the required specifications are twisted into a compact round cable core. The gaps in the cable core are filled with water-blocking fillers, and then the extruded LSZH or PVC sheath.

### Features

- The optical fiber and the copper wire for power transmission are integrated in one cable, which simultaneously solves the equipment power consumption and signal transmission, centrally monitors and maintains the power supply of the equipment, and saves purchase and construction costs.
- The outer sheath has good resistance to ultraviolet radiation.
- Comprehensive blocking-water structure, ensure good insulation performance.



## Product Specifications and Structure

Type	Number of stranding units	Number of drop cable cables	Single conductor cross-sectional area(mm <sup>2</sup> )	Maximum DC resistance of single conductor (20℃)(Ω/km)	Cable weight (kg/km)
GDJH-2B6+2×1.5mm <sup>2</sup>	4	2	1.5	12.2	121
GDJH-2B6+2×2.5mm <sup>2</sup>	4	2	2.5	7.56	170
GDJH-2B6+2×4.0mm <sup>2</sup>	4	2	4.0	4.7	220

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>c</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.657A1	≤0.5	≤0.4	(8.6~9.5)±0.4	≤1260
G.657A2	≤0.5	≤0.4	(8.6~9.5)±0.4	≤1260

## Technical and Environmental Characteristics

Item		Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	300/600
	Crush Long/short term	N/100 mm	300/1000
	Bend radius Static/dynamic	mm	5D/10D
Environmental Characteristics	Operation	℃	-40~+60
	Shipping and storage	℃	-40~+60
	Installation	℃	-10~+60

## Product Standard

YD/T 2159-2013 Optical and electrical hybrid cables for access network.

## Delivery Length

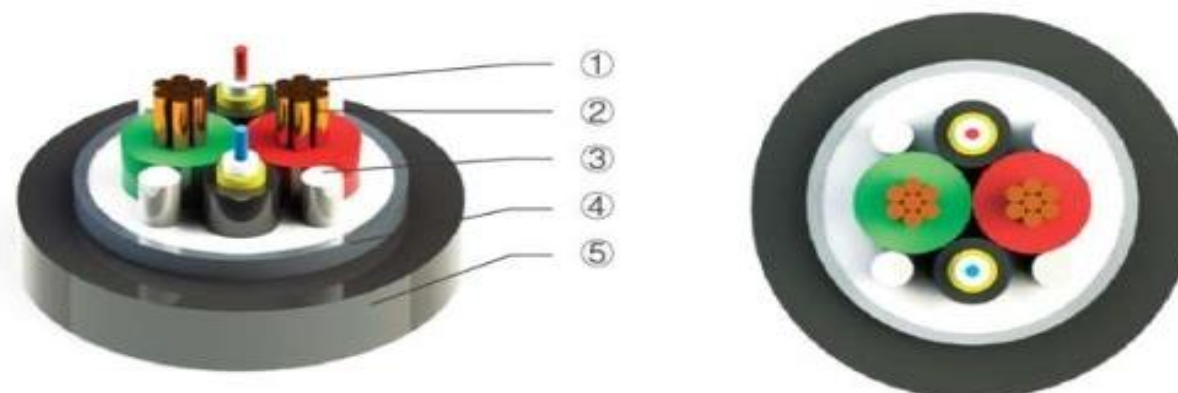
Recommended length: 2km, 3km, 4km; Other lengths are also available according to the customers' requirements.



## Hybrid Optical and Electrical Cable (GDFJH)

### Applications

- Remote unattended computer room
- Community computer room
- Mobile base station



**GDFJH**

1.Round optical unit 2.Copper wire 3.Filler 4.Tape 5.Sheath

### CableDescription

In the GDFJH a sub-cable is made by extruding colored optical fiber and aramid into a round LSZH sheath. The sub-cable and the insulated copper wire of the required specifications are twisted into a compact round cable core. The gaps in the cable core are filled with water-blocking fillers, and then the extruded LSZH sheath.

### Features

- The optical fiber and the copper wire for power transmission are integrated in one cable, which simultaneously solves the equipment power consumption and signal transmission, centrally monitors and maintains the power supply of the equipment, and saves purchase and construction costs.
- The outer sheath has good resistance to ultraviolet radiation.
- Comprehensive blocking-water structure, ensure good insulation performance.



## Product Specifications and Structure

Type	Number of stranding units	Number of drop cable cables	Single conductor cross-sectional area(mm <sup>2</sup> )	Maximum DC resistance of single conductor (20°C)(Ω/km)	Cable weight (kg/km)
GDFJH-2B6+2 × 1.5mm <sup>2</sup>	4	2	1.5	12.2	106
GDFJH-2B6+2 × 2.5mm <sup>2</sup>	4	2	2.5	7.56	146
GDFJH-2B6+2 × 4.0mm <sup>2</sup>	4	2	4.0	4.7	183

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>c</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.657A1	≤0.5	≤0.4	(8.6~9.5) ± 0.4	≤1260
G.657A2	≤0.5	≤0.4	(8.6~9.5) ± 0.4	≤1260

## Technical and Environmental Characteristics

	Item	Unit	Parameter
Technical Characteristics	Tensile strength Long/short term	N	600/1500
	Crush Long/short term	N/100 mm	300/1000
	Bend radius Static/dynamic	mm	10D/20D
Environmental Characteristics	Operation	°C	-40~+60
	Shipping and storage	°C	-40~+60
	Installation	°C	-10~+60

## Product Standard

YD/T 2289.3-2013 Cable for wireless remote radio unit.Part 3: optical and electrical hybrid cables.

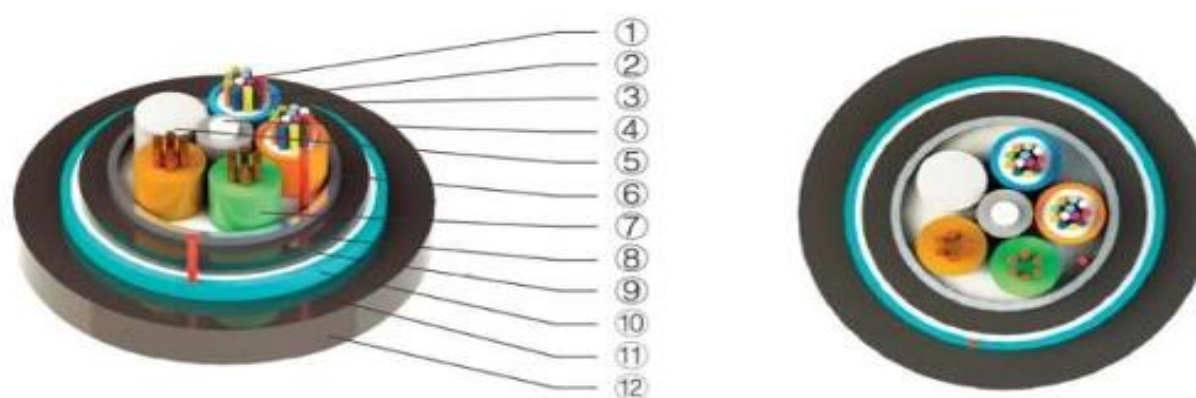
## Delivery Length

Recommended length: 2km, 3km, 4km;Other lengths are also available according to the customers' requirements.

## Hybrid Optical and Electrical Stranded Loose Tube Cable(GDTA53)

### Applications

- Duct, aerial, directly buried installation. Realize the integration of equipment power consumption and signal transmission.



### GDTA53

1.Fiber 2.Gel 3.Loose Tube 4.Wire 5.Filling Rope (may have) 6.Water Blocking Cable Paste  
7.Copper Wire 8.Aluminium Tape 9.Inner Sheath 10.Water Blocking Tape 11.Steel Tape 12.Outer Sheath

### Cable Description

In the GDTA53 cable the fibers are placed in high modulus loose tubes filled with a waterproof compound. At the center of the cable is a metallic strength member. Loose tubes and insulated copper wires of required specifications are twisted around the central reinforced core to form a compact round cable core, and the gaps in the cable core are filled with water blocking fillers. The plastic coated aluminum tape is longitudinally wrapped and then extruded into a PE inner sheath. After the water-blocking tape is longitudinally wrapped around the inner sheath, the outer sheath of PE is extruded through double-sided plastic-coated corrugated steel tape armor.

### Features

- The precise control of the fiber residual ensures that the optical cable has good mechanical and environmental performance.





- The optical cable and the copper wire are integrated in one cable, which simultaneously solves the equipment power consumption and signal transmission, centrally monitors and maintains the power supply of the equipment, and saves purchase and construction costs.
- It can be used in DC remote supply system of distributed base station.
- The water-blocking fiber paste and water-blocking cable paste realize the full cross-section water blocking of the internal gaps of the optical cable structure and ensure the longitudinal water blocking performance of the optical cable.
- Improve the manageability of power and reduce power supply coordination and maintenance.

## Product Specifications and Structure

Type	Number of stranding units	Number of drop cable cables	Single conductor cross-sectional area(mm <sup>2</sup> )	Maximum DC resistance of single conductor (20°C)(Ω/km)	Cable weight (kg/km)
GDTA53-24F+2×1.5	5	2	1.5	12.2	283
GDTA53-24F+2×2.0	4	2	2.0	10.2	334
GDTA53-24F+2×2.5	4	2	2.5	7.56	357
GDTA53-24F+2×4.0	4	2	4.0	4.7	401
GDTA53-24F+2×6.0	4	2	6.0	3.11	474

## Optical Characteristics

Fiber type	Attenuation coefficient		1310nm MFD (μm)	Cable cut-off wavelength (λ <sub>cc</sub> ) (nm)
	@1310nm (dB/km)	@1550nm (dB/km)		
G.652D	≤0.36	≤0.22	(8.6–9.4) ± 0.6	≤1260
G.655	–	≤0.25	(8.0–11.0) ± 0.6	≤1450

# Standard Simplex Fiber Patch Cables

Make High-speed Optical network Racks&equipment Connections.

---



IL<0.3dB Max



RoHS

## Description

The patch cord can be used in interconnect or cross-connect path connecting the incoming fibers to the electronic equipment and providing patching within the fiber paths.

NH-LINK's Patch cables are manufactured and tested in compliance with TIA 604 (FOCIS), IEC 61754 and YD/T industry standards. OM1, OM2, OM3, OM4, OM5 or OS2 fiber types to meet the demand of Gigabit Ethernet, 10 Gigabit Ethernet and high speed Fiber Channel. Every termination through rigorous parameter test to ensure the highest in network performance.

## Products Materials



G652D, G657A1, G657A2/B2, G657B3, OM1, OM2, OM3, OM4, OM5 Fibers  
900um, 1.2mm, 1.6mm, 1.7mm, 1.8mm, 2.0mm, 2.4mm, 2.6mm, 2.8mm OD cable  
PVC (Riser/OFNR), LSZH, Plenum (OFNP) Jacket materials



High quality SM Ceramic ferrule, Good concentricity < 0.5um  
High quality MM Ceramic ferrule, Good concentricity < 4.0um



Standard connectors LC, SC, ST, FC, E2000, MU, D4, Din, LX.5, SMA are available  
High precious connector guarantee Good Repeatability and Interchangeability  
OEM Housing kits Color, OEM boot Colors  
Customized Design for special demand

## Standard Compliance

- TIA 604 (FOCIS)
- TIA/EIA 492AAAE
- IEC 61754
- IEC 60793-2-10
- IEC 61300-3-35
- YD/T 1272.1-2003
- RoHS, ISO9001 Compliant

## Features

- High quality zirconia ferrules.
- Good repeatability and interchange.
- Flame-retardant, rugged and durable jacket.
- 100% optically tested for insertion loss to ensure high quality

## Application

- Data Center
- Enterprise
- Fiber to the X (FTTX)
- LAN and WAN
- CATV Network
- Telecommunications Network

## Connector Type

### LC

Standard, Uniboot,  
Typical Applications :  
High-density  
connections, SFP and SFP+ transceivers,  
XFP transceivers.



### SC

Standard boot,  
Short boot  
Typical Applications :  
Telecom; GPON;  
EPON; GBIC.



### FC

Standard boot  
Typical Applications :  
Datacom, Telecom, measurement  
equipment, single-mode lasers



### ST

Standard boot  
Typical Applications :





## Connector Type

### E2000

Huber+Suhner,R&M,Diamond  
Typical Applications : Telecom,  
DWDM



### MU

Standard boot  
Typical Applications:  
LAN,



### D4

Standard boot



### DIN

Standard boot



## Connector Standard

SC: TIA/EIA, FOCIS3, GR-326.NTT-SC IEC61754-4 and JIS C5973.

LC: TIA/EIA, FOCIS10, GR-326 EIA/TIA-604-10, IEC61754-20 and JIS C5973.

FC: EIA /TIA-604-04, FOCIS4, NTT-FC, GR-326. IEC61754-13 and JIS C5973

ST: TIA/EIA, FOCIS2, GR-326. IEC61754-2 and JIS C5973 Etc.

MU: TIA/EIA-604-3A, GR-326.NTT-MU, JIS and IEC.

MTRJ: TIA/EIA, FOCIS12, GR-326. IEC and JIS C5973.

DIN: IEC61754-3

## Optical Specifications

Insertion loss	$\leq 0.25\text{dB}$ Mean (Standard)	Interchangeability	$\leq 0.2\text{dB}$
Return loss	SM UPC $\geq 50\text{dB}$ SM APC $\geq 60\text{dB}$ MM PC $\geq 35\text{dB}$	Vibration	$\leq 0.2\text{dB}$
Operating temperature	$-40\sim 75^{\circ}\text{C}$	Maximum pulling force	70N(2.0mm cable) 100N(3.0mm cable)

## Geometric Specification( if Customer requested)

Items		Parameter	
Polishing		PC	APC
ROC	SC/FC/ST	10 ~ 25mm	5 ~ 12mm
	LC/MU	7~ 25mm	5 ~ 12mm
Apex Offset		$\leq 50\mu\text{m}$	
Fiber Spherical Height		$\pm 100\text{nm}$	
Angle		—	$8 \pm 0.5$

## Polishing Method

UPC(Ultra-Polished connector)



APC( 8 Angled Polished connector)



## Polishing End-face



SM UPC



SM APC



MM PC

## End-face Quality (SM)

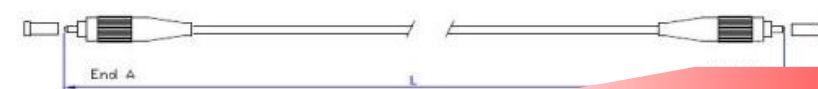
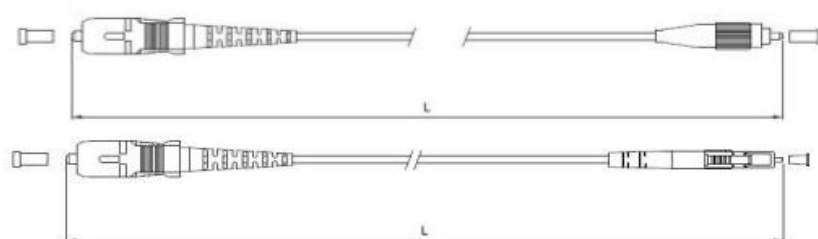
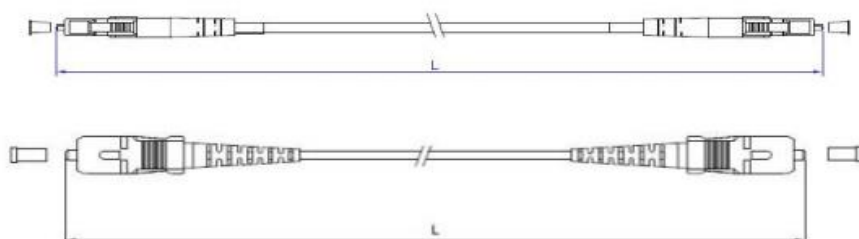
Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## End-face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## Length Tolerance

Overall Length(L)(m)	length of tolerance(cm)
0<L<1	+5/-0
1<L<10	+10/-0
10<L<40	+15/-0
40<L	+0.5% x L/-0



### Packaging

This easily taken and well-protected fiber patch cable package has been labeled and marked by TRULINK as default . Standard carton size : 34\*22\*15 cm; 44\*34\*24 cm ; 54\*39\*34 cm . Which carton to be used depends on goods Qty . Packing can be customized

S



- OME service {
- 1. Cable color, printing word, material of cable jacket, connector's color
  - 2. OEM Label, Identify ring, cable's label, box, shipping marks
  - 3. Different quality Level.

### Order Instruction

Patch cord	Fiber count	Fiber Grade	Connector A	Connector B	Cable OD	Out jacket	Cable Color	length
A	S1 - Simplex Standard Quality, No Geometric request	1 - G652D	A LC UPC	A LC UPC	1 - 0.6mm	H- LSZH	A Blue	1=1m
		2 - G657A1	B SC UPC	B SC UPC	2 - 0.9mm	C - PVC	B Orange	...
		3 - G657A2/B2	C FC UPC	C FC UPC	3 - 1.2mm	R - OFNR	C Green	
		4 - G657B3	D ST UPC	D ST UPC	4 - 1.6mm	P - OFNP	D Brown	
	S2 - Simplex Standard Quality,Geometric passed request	5 - OM1	E LC APC	E LC APC	5 - 1.7mm		E Grey	
		6 - OM2	F SC APC	F SC APC	6 - 2.0mm		F White	
		7 - OM3	G FC APC	G FC APC	7 - 2.4mm		G Red	
		8 - OM4	H ST APC	H ST APC	8 - 2.6mm		H Black	
		9 - OM5	I E2000 UPC	I E2000 UPC	9 - 2.8(3.0)mm		I Yellow	
			J E2000 APC	J E2000 APC			J Purple	
			L DIN UPC	L DIN UPC			K Pink	
			M DIN APC	M DIN APC			L aqua	
			N D4	N D4			M Magenta	
			O MU UPC	O MU UPC			X- other	
			P MU APC	P MU APC				
			R LX.5 UPC	R LX.5 UPC				
			S LX.5 APC	S LX.5 APC				



## Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
1G	1000BASE-LX	OM5	850nm	550m
		OM4	1300nm	550m
		OM3	1300nm	550m
		OM2	1300nm	550m
		OM1	1300nm	550m
		SMF	1310nm	10km
	1000BASE-SX	OM4	850nm	550m
		OM3	850nm	550m
		OM2	850nm	550m
		OM1	850nm	275m
10G	10GBASE-SR	OM4	850nm	400m
		OM3	850nm	300m
		OM2	850nm	82m
		OM1	850nm	33m
	10GBASE-LRM	OM5	850nm	220m
		OM3	1300nm	220m
		OM2	1300nm	220m
		OM1	1300nm	220m
	10GBASE-LR	SMF	1310nm	10km
	10GBASE-ER	SMF	1550nm	30-40km
	10GBASE-ZR	SMF	1550nm	80-100km
40G	40G-BIDI	OM5	850nm	200m
		OM4	850nm	150m
		OM3	850nm	100m
	40GBASE-SR4	OM5	850nm	150m
		OM4	850nm	150m
		OM3	850nm	100m
	40G-SWDM4	OM5	850nm	440m
		OM4	850nm	350m
		OM3	850nm	240m
	40GBASE-LR4	SMF	1310nm	10km

## Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
100G	100GBASE-SR4	OM5	850nm	100m
		OM4	850nm	100m
		OM3	850nm	70m
	100G-SWDM4	OM5	850nm	150m
		OM4	850nm	100m
		OM3	850nm	75m
	100GBASE-SR10	OM4	850nm	125m
		OM3	850nm	100m
	100GBASE-LR4	SMF	1310nm	10km
	100GBASE-ER4	SMF	1310nm	40km

## How to Choose The Right Fiber Optic Cable Type?

Designation	Fiber Dia. (μm)	Type	Fast Ethernet 100BASE-FX	1 Gigabit Ethernet 1000BASE-SX	1 Gigabit Ethernet 1000BASE-LX	10Gbps Ethernet 10GBASE	40Gbps Ethernet 40GBASE SR4	100Gbps Ethernet 100GBASE SR4
OM1	62.5/125	Multi-mode	2000 Meters	275 Meters	550 Meters	33 Meters	Not supported	Not supported
OM2	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	82 Meters	Not supported	Not supported
OM3(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	300 Meters	100 Meters (SR4)	100 Meters (SR4)
OM4(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	400 Meters	150 Meters (SR4)	150 Meters (SR4)
Singlemode	9/125	Single-mode	2000 Meters	5km at 1310nm	5km at 1310nm	10km at 1310nm	N/A	N/A

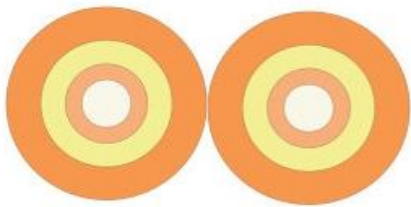
PS: The difference of OM4 and OM3 fiber mode as the following

1. OM4 was developed specifically for VCSEL laser transmission and allows 10 Gig / second link distances of up to 550 Meters (compared to 300M with OM3).
2. The effective modal bandwidth for OM4 is more than double that of OM3.
3. For OM4 patch cable it is 4700 MHz.km while for OM3 it is 2000 MHz.km.

# Standard Zipcord Duplex Fiber Patch Cables

Make High-speed Optical network Racks&equipment Connections.

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IL<0.3dB Max



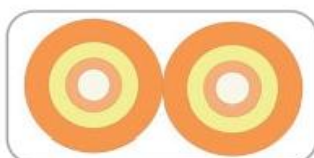


## Description

The patch cord can be used in interconnect or cross-connect path connecting the incoming fibers to the electronic equipment and providing patching within the fiber paths.

Patch cables are manufactured and tested in compliance with TIA 604 (FOCIS), IEC 61754 and YD/T industry standards. OM1, OM2, OM3, OM4, OM5 or OS2 fiber types to meet the demand of Gigabit Ethernet, 10 Gigabit Ethernet and high speed Fiber Channel. Every termination through rigorous parameter test to ensure the highest in network performance.

## Products Materials



G652D, G657A1, G657A2/B2, G657B3, OM1, OM2, OM3, OM4, OM5 Fibers  
OD: 1.2x2.5mm, 1.6x3.3mm, 1.7x3.5mm, 1.8x3.7mm, 2.0x4.1mm, 2.4x4.9mm, 2.6x5.3mm, 2.8x5.7mm  
PVC (Riser/OFNR), LSZH, Plenum (OFNP) Jacket materials



High quality SM Ceramic ferrule, Good concentricity < 0.5µm  
High quality MM Ceramic ferrule, Good concentricity < 4.0µm



Standard connectors LC, SC, ST, FC, E2000, MU, D4, Din, LX.5, SMA are available  
High precision connector guarantee Good Repeatability and Interchangeability  
OEM Housing kits Color, OEM boot Colors  
Customized Design for special demand

## Standard Compliance

- TIA 604 (FOCIS)
- TIA/EIA 492AAAE
- IEC 61754
- IEC 60793-2-10
- IEC 61300-3-35
- YD/T 1272.1-2003
- RoHS, ISO9001 Compliant

## Features

- High quality zirconia ferrules.
- Good repeatability and interchange.
- Flame-retardant, rugged and durable jacket.
- 100% optically tested for insertion loss to ensure high quality

## Application

- Data Center
- Enterprise
- Fiber to the X (FTTX)
- LAN and WAN
- CATV Network
- Telecommunications Network

## Connector Type

### LC

Standard, Uniboot,  
Typical Applications :  
High-density  
connections, SFP and  
SFP+ transceivers,  
XFP transceivers.



### FC

Standard boot  
Typical Applications : Data-  
com, Telecom, measure-  
ment equipment, single-

### SC

Standard boot, Short  
boot  
Typical Applica-  
tions : Telecom;  
GPON; EPON;



### ST

Standard boot  
Typical Applications : Datacom

## Connector Type

### E2000

Typical Applications :  
Telecom, DWDM



### MU

Standard boot  
Typical Applications:  
LAN,  
Telecommunication  
Network



### MT-JR

Standard boot



### DIN

Standard boot



## Connector Standard

SC: TIA/EIA, FOCIS3, GR-326.NTT-SC IEC61754-4 and JIS C5973.

LC: TIA/EIA, FOCIS10, GR-326 EIA/TIA-604-10, IEC61754-20 and JIS C5973.

FC: EIA /TIA-604-04, FOCIS4, NTT-FC, GR-326. IEC61754-13 and JIS C5973

ST: TIA/EIA, FOCIS2, GR-326. IEC61754-2 and JIS C5973 Etc.

MU: TIA/EIA-604-3A, GR-326.NTT-MU, JIS and IEC.

MTRJ: TIA/EIA, FOCIS12, GR-326. IEC and JIS C5973.

DIN: IEC61754-3

## Optical Specifications

Insertion loss	≤0.25dB Mean (Standard)	Interchangeability	≤0.2dB
Return loss	SM UPC ≥ 50dB SM APC ≥ 60dB MM PC ≥ 35dB	Vibration	≤0.2dB
Operating temperature	-40~75°C	Maximum pulling force	70N(2.0mm cable) 100N(3.0mm cable)
Polarity	A(Tx) to B(Rx)		

## Geometric Specification ( if Customer requested)

Items		Parameter	
Polishing		PC	APC
ROC	SC/FC/ST	10 ~ 25	5 ~ 12
	LC/MU	7~ 25	5 ~ 12
Apex Offset		≤ 50	
Fiber Spherical Height		±100	
Angle		± 0.5	8 ± 0.5

## Polishing Method

UPC(Ultra-Polished connector)



APC( 8 Angled Polished connector)



## Polishing End - face



SM UPC



SM APC



MM PC

## End-face Quality (SM)

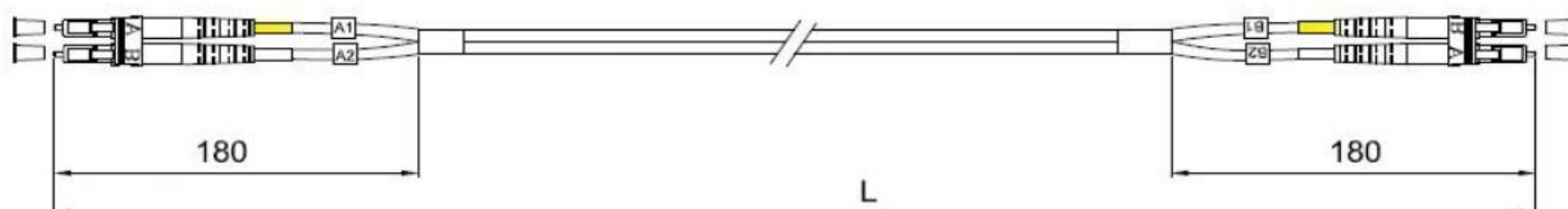
Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## End-face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## Length Tolerance

Overall Length(L)(m)	length of tolerance(cm)
$0 < L < 1$	+5/-0
$1 < L < 10$	+10/-0
$10 < L < 40$	+15/-0
$40 < L$	+0.5% x L/-0





## Packaging

This easily taken and well-protected fiber patch cable package has been labeled and marked by TRULINK as default . Standard carton size : 34\*22\*15 cm; 44\*34\*24 cm ; 54\*39\*34 cm . Which carton to be used depends on goods Qty . Packing can be customized



1,Self-seal PE Bag



2 Bubble Bag



3, Paper Carton



4,fumig-free Pallet

### OME service

1. Cable color, printing word, material of cable jacket, connector's color
2. OEM Label, Identify ring, cable's label, box, shipping marks
3. Different quality Level.

## Order Instruction

Patch cord	Fiber count	Fiber Grade	Connector A	Connector B	Cable OD	Out jacket	Cable Color	length
A	D1 -Zip Duplex Standard Quality, No Geometric request	1 - G652D	A LC UPC	A LC UPC	3 - 1.2mm	H- LSZH	A Blue	1=1m
		2 - G657A1	B SC UPC	B SC UPC	4 - 1.6mm	C - PVC	B Orange	...
		3 - G657A2/B2	C FC UPC	C FC UPC	5 - 1.7mm	R - OFNR	C Green	
		4 - G657B3	D ST UPC	D ST UPC	6 - 2.0mm	P - OFNP	D Brown	
		5 - OM1	E LC APC	E LC APC	7 - 2.4mm		E Grey	
		6 - OM2	F SC APC	F SC APC	8 - 2.6mm		F White	
		7 - OM3	G FC APC	G FC APC	9 - 2.8(3.0)mm		G Red	
		8 - OM4	H ST APC	H ST APC			H Black	
		9 - OM5	I E2000 UPC	I E2000 UPC			I Yellow	
			J E2000 APC	J E2000 APC			J Purple	
	D2 -Zip Duplex Standard Quality,Geometric passed request		L DIN UPC	L DIN UPC			K Pink	
			M DIN APC	M DIN APC			L aqua	
			N D4	N D4			M Magenta	
			O MU UPC	O MU UPC			X- other	
			P MU APC	P MU APC				
			R LX.5 UPC	R LX.5 UPC				
			S LX.5 APC	S LX.5 APC				

## Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
1G	1000BASE-LX	OM5	850nm	550m
		OM4	1300nm	550m
		OM3	1300nm	550m
		OM2	1300nm	550m
		OM1	1300nm	550m
		SMF	1310nm	10km
	1000BASE-SX	OM4	850nm	550m
		OM3	850nm	550m
		OM2	850nm	550m
		OM1	850nm	275m
10G	10GBASE-SR	OM4	850nm	400m
		OM3	850nm	300m
		OM2	850nm	82m
		OM1	850nm	33m
	10GBASE-LRM	OM5	850nm	220m
		OM3	1300nm	220m
		OM2	1300nm	220m
		OM1	1300nm	220m
	10GBASE-LR	SMF	1310nm	10km
	10GBASE-ER	SMF	1550nm	30-40km
	10GBASE-ZR	SMF	1550nm	80-100km
40G	40G-BIDI	OM5	850nm	200m
		OM4	850nm	150m
		OM3	850nm	100m
	40GBASE-SR4	OM5	850nm	150m
		OM4	850nm	150m
		OM3	850nm	100m
	40G-SWDM4	OM5	850nm	440m
		OM4	850nm	350m
		OM3	850nm	240m
	40GBASE-LR4	SMF	1310nm	10km

## Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
100G	100GBASE-SR4	OM5	850nm	100m
		OM4	850nm	100m
		OM3	850nm	70m
	100G-SWDM4	OM5	850nm	150m
		OM4	850nm	100m
		OM3	850nm	75m
	100GBASE-SR10	OM4	850nm	125m
		OM3	850nm	100m
	100GBASE-LR4	SMF	1310nm	10km
	100GBASE-ER4	SMF	1310nm	40km

## How to Choose The Right Fiber Optic Cable Type?

Designation	Fiber Dia. (μm)	Type	Fast Ethernet 100BASE-FX	1 Gigabit Ethernet 1000BASE-SX	1 Gigabit Ethernet 1000BASE-LX	10Gbps Ethernet 10GBASE	40Gbps Ethernet 40GBASE	100Gbps Ethernet 100GBASE
OM1	62.5/125	Multi-mode	2000 Meters	275 Meters	550 Meters	33 Meters	Not supported	Not supported
OM2	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	82 Meters	Not supported	Not supported
OM3(Laser	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	300 Meters	100 Meters	100 Meters
Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	400 Meters	150 Meters(SR4)	150 Meters(SR4)
Singlemode	9/125	Single-mode	2000 Meters	5km at 1310nm	5km at 1310nm	10km at 1310nm	N/A	N/A

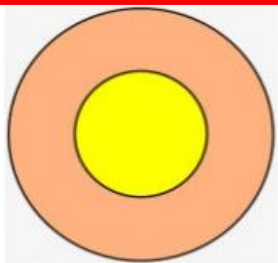
PS: The difference of OM4 and OM3 fiber mode as the following

1. OM4 was developed specifically for VCSEL laser transmission and allows 10 Gig / second link distances of up to 550 Meters (compared to 300M with OM3).
2. The effective modal bandwidth for OM4 is more than double that of OM3.



# Standard 900um Fiber Pigtail

Make High-speed Optical network Racks&equipment Connections.



IL<0.3dB Max  
Color coded fiber  
Easy to strip Cable



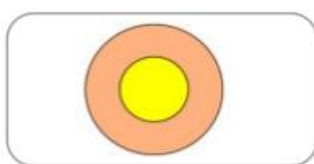
## Description

The fiber optic pigtail is normally a tight/Tight buffered fiber cable with a connector pre terminated on one end and exposed fiber on the other. The end is stripped and fusion spliced to a single or multi-fiber trunk. When utilized properly, the fiber optic pigtail allows light signal transmission with minimal return loss and low attenuation. Make sure your network is reinforced with fiber pigtails, as ours are manufactured of superior quality materials.

The Pigtail are available in both single and multimode versions with either APC or UPC polish types. Our fiber pigtails come with a partial outer jacket protecting the Tight/Loose buffers from damage. If installed in a high density application, the outer jacket can be easily removed to accommodate a tighter bend radius for the pigtails.

We offer Individual single pigtails, Discounted 6 packs, or 12 Packs. Also 12 fiber or 6 fiber jacketed pigtails .

## Products Materials



G652D,G657A1,G657A2/B2,G657B3,OM1,OM2, OM3, OM4, OM5 Fibers

900um, 1.2mm,1.6mm,1.7mm,1.8mm,2.0mm,2.4mm,2.6mm,2.8mm OD cable

PVC (Riser/OFNR), LSZH, Plenum (OFNP) Jacket materials



High quality SM Ceramic ferrule, Good concentricity<0.5um

High quality MM Ceramic ferrule, Good concentricity<4.0um



Standard connectors LC, SC, ST, FC, E2000, MU, D4, Din, LX.5, SMA are available

High precious connector guarantee Good Repeatability and Interchangeability

OEM Housing kits Color, OEM boot Colors

## Standard Compliance

- TIA 604 (FOCIS)
- TIA/EIA 492AAAE
- IEC 61754
- IEC 60793-2-10
- IEC61300-3-35
- YD/T1272.1-2003
- RoHS, ISO9001 Compliant

## Features

- High quality zirconia ferrules.
- Good repeatability and interchange.
- Flame-retardant, rugged and durable jacket.
- 100% optically tested for insertion loss to ensure high quality

## Application

- Data Center
- Enterprise
- Fiber to the X (FTTX)
- LAN and WAN
- CATV Network
- Telecommunications Network

## Connector Type

### LC

Standard boot . Short boot

Typical Applications : High-density connections, SFP and SFP+ transceivers, XFP transceivers.



### SC

Standard boot , Short boot

Typical Applications : Telecom; GPON; EPON; GBIC.



### FC

Standard boot

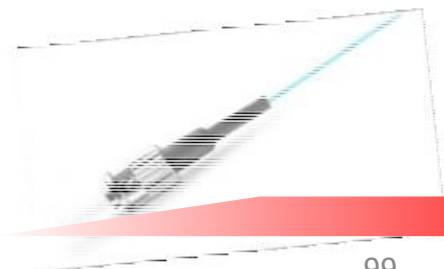
Typical Applications : Datacom, Telecom, measurement equipment, single-mode lasers



### ST

Standard boot

Typical Applications : Datacom



Connector Type

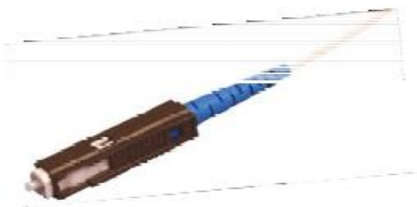
E2000

Typical Applications : Telecom,  
DWDM



MU: Standard boot

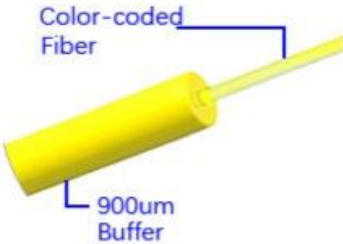
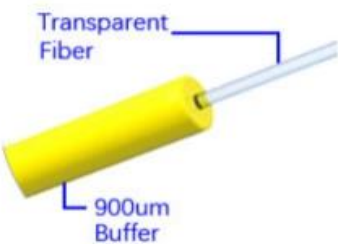
Typical Applications: LAN,  
Telecommunication Network



Available for 12 colors,The 900um  
buffer and fiber same color coded



Standard 900um Cable      Color-coded 900um Cable



Connector Standard

SC: TIA/EIA, FOCIS3, GR-326.NTT-SC IEC61754-4 and JIS C5973.  
LC: TIA/EIA, FOCIS10, GR-326 EIA/TIA-604-10, IEC61754-20 and JIS C5973.  
FC: EIA /TIA-604-04, FOCIS4, NTT-FC, GR-326. IEC61754-13 and JIS C5973  
ST: TIA/EIA, FOCIS2, GR-326. IEC61754-2 and JIS C5973 Etc.  
MU: TIA/EIA-604-3A, GR-326.NTT-MU, JIS and IEC.  
E2000: IEC61754-15

Optical Specifications

Insertion loss	≤0.25dB Mean (Standard)	Interchangeability	≤0.2dB
Return loss	SM UPC≥50dB SM APC≥60dB MM PC≥35dB	Vibration	≤0.2dB
Operating temperature	-40~75°C	Maximum pulling force	6N(900um cable) 70N(2.0mm cable) 100N(3.0mm cable)

Geometric Specification( if Customer requested)

Items		Parameter	
Polishing		PC	APC
ROC	SC/FC/ST	10 ~ 25	5 ~ 12
	LC/MU	7~ 25	5 ~ 12
Apex Offset		≤ 50	
Fiber Spherical Height		±100	
Angle		± 0.5	8 ± 0.5



## Polishing Method

UPC(Ultra-Polished connector)



APC( 8 Angled Polished connector)



## Polishing End-face



SM UPC



SM APC



MM PC

## End-face Quality (SM)

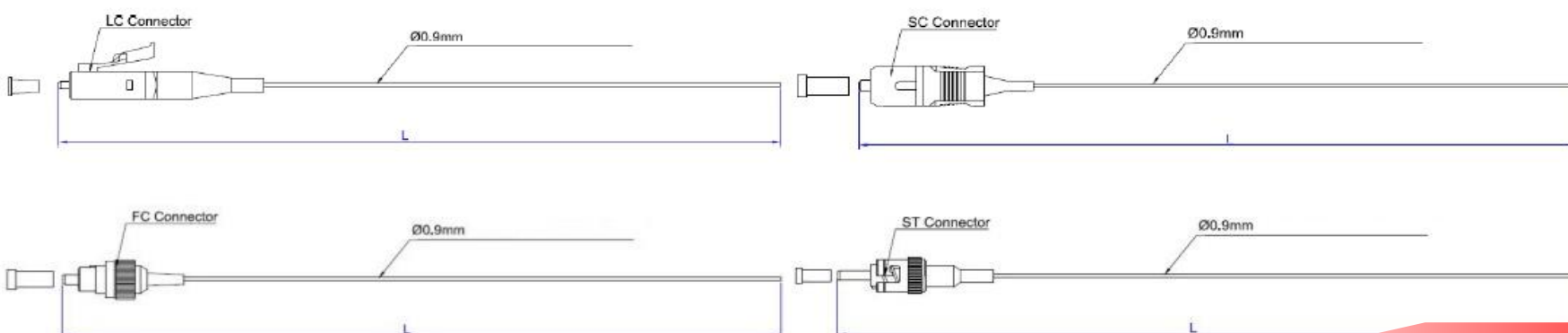
Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## End-face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## Length Tolerance

Overall Length(L)(m)	length of tolerance(cm)
0<L<1	+5/-0
1<L<10	+10/-0
10<L<40	+15/-0
40<L	+0.5% x L/-0



Packaging

This easily taken and well-protected fiber patch cable package has been labeled and marked by TRULINK as default . Standard carton size : 34\*22\*15 cm; 44\*34\*24 cm ; 54\*39\*34 cm . Which carton to be used depends on goods Qty . Packing can be customized



1,Self-seal PE Bag + Bubble Bag



2, Paperboard+bubble bag



3, Blister box



4, Paper Carton



5,fumig-free freight tray

OME Service

- Cable color, material of cable jacket, connector's color
- OEM Label&Box, Identify ring, cable's label, box, shipping marks
- Different quality Level.

Order Instruction

Pigtail	Fiber count	Fiber Grade	Connector	Cable OD	Out jacket	Buffer	Fiber color	Cable Color	—	length
E	S1 - Simplex Standard Quality, No Geometric request	1 - G652D	A LC UPC	1 - 0.6mm	H- LSZH	1-Tight	1-colored	A Blue		1=1m
		2 - G657A1	B SC UPC	2 - 0.9mm	C - PVC	2-Loose	2-transparent	B Orange		...
		3 - G657A2/B2	C FC UPC	3 - 1.2mm	R - OFNR	3-Simi-tight		C Green		
		4 - G657B3	D ST UPC	4 - 1.6mm	P - OFNP			D Brown		
		5 - OM1	E LC APC	5 - 1.7mm				E Grey		
		6 - OM2	F SC APC	6 - 2.0mm				F White		
		7 - OM3	G FC APC	7 - 2.4mm				G Red		
		8 - OM4	H ST APC	8 - 2.6mm				H Black		
		9 - OM5	I E2000 UPC	9 - 2.8(3.0)mm				I Yellow		
	S2 - Simplex Standard Quality,Geometric passed request		J E2000 APC					J Purple		
			L DIN UPC					K Pink		
			M DIN APC					L aqua		
			N D4					M Magenta		
			O MU UPC					X- other		
			P MU APC							
			R LX.5 UPC							
			S LX.5 APC							

## Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
1G	1000BASE-LX	OM5	850nm	550m
		OM4	1300nm	550m
		OM3	1300nm	550m
		OM2	1300nm	550m
		OM1	1300nm	550m
		SMF	1310nm	10km
	1000BASE-SX	OM4	850nm	550m
		OM3	850nm	550m
		OM2	850nm	550m
		OM1	850nm	275m
10G	10GBASE-SR	OM4	850nm	400m
		OM3	850nm	300m
		OM2	850nm	82m
		OM1	850nm	33m
	10GBASE-LRM	OM5	850nm	220m
		OM3	1300nm	220m
		OM2	1300nm	220m
		OM1	1300nm	220m
	10GBASE-LR	SMF	1310nm	10km
	10GBASE-ER	SMF	1550nm	30-40km
	10GBASE-ZR	SMF	1550nm	80-100km
40G	40G-BIDI	OM5	850nm	200m
		OM4	850nm	150m
		OM3	850nm	100m
	40GBASE-SR4	OM5	850nm	150m
		OM4	850nm	150m
		OM3	850nm	100m
	40G-SWDM4	OM5	850nm	440m
		OM4	850nm	350m
		OM3	850nm	240m
	40GBASE-LR4	SMF	1310nm	10km



## Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
100G	100GBASE-SR4	OM5	850nm	100m
		OM4	850nm	100m
		OM3	850nm	70m
	100G-SWDM4	OM5	850nm	150m
		OM4	850nm	100m
		OM3	850nm	75m
	100GBASE-SR10	OM4	850nm	125m
		OM3	850nm	100m
	100GBASE-LR4	SMF	1310nm	10km
	100GBASE-ER4	SMF	1310nm	40km

## How to Choose The Right Fiber Optic Cable Type?

Designation	Fiber Dia. (μm)	Type	Fast Ethernet 100BASE-FX	1 Gigabit Ethernet 1000BASE-SX	1 Gigabit Ethernet 1000BASE-LX	10Gbps Ethernet 10GBASE	40Gbps Ethernet 40GBASE SR4	100Gbps Ethernet 100GBASE SR4
OM1	62.5/125	Multi-mode	2000 Meters	275 Meters	550 Meters	33 Meters	Not supported	Not supported
OM2	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	82 Meters	Not supported	Not supported
OM3(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	300 Meters	100 Meters(SR4)	100 Meters (SR4)
OM4(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	400 Meters	150 Meters(SR4)	150 Meters (SR4)
Singlemode	9/125	Single-mode	2000 Meters	5km at 1310nm	5km at 1310nm	10km at 1310nm	N/A	N/A

PS: The difference of OM4 and OM3 fiber mode as the following

1. OM4 was developed specifically for VCSEL laser transmission and allows 10 Gig / second link distances of up to 550 Meters (compared to 300M with OM3).
2. The effective modal bandwidth for OM4 is more than double that of OM3.

# Standard 6-12F Color – Coded 900um Fiber Pigtail Set

Make High-speed Optical network Racks&equipment Connections.





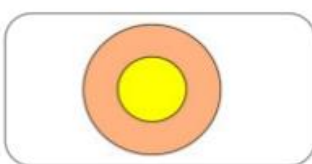
## Description

The fiber optic pigtail is normally a tight/Tight buffered fiber cable with a connector pre terminated on one end and exposed fiber on the other. The end is stripped and fusion spliced to a single or multi-fiber trunk. When utilized properly, the fiber optic pigtail allows light signal transmission with minimal return loss and low attenuation. Make sure your network is reinforced with NH-LINK's fiber pigtails, as ours are manufactured of superior quality materials.

The Pigtail are available in both single and multimode versions with either APC or UPC polish types. Our fiber pigtails come with a partial outer jacket protecting the Tight/Loose buffers from damage. If installed in a high density application, the outer jacket can be easily removed to accommodate a tighter bend radius for the pigtails.

We offer Individual single pigtails, Discounted 6 packs, or 12 Packs. Also 12 fiber or 6 fiber jacketed pigtails .

## Products Materials



G652D,G657A1,G657A2/B2,G657B3,OM1,OM2, OM3, OM4, OM5 Fibers

900um, 1.2mm,1.6mm,1.7mm,1.8mm,2.0mm,2.4mm,2.6mm,2.8mm OD cable

PVC (Riser/OFNR), LSZH, Plenum (OFNP) Jacket materials



High quality SM Ceramic ferrule, Good concentricity<0.5um

High quality MM Ceramic ferrule, Good concentricity<4.0um



Standard connectors LC, SC, ST, FC, E2000, MU, D4, Din, LX.5, SMA are available

High precious connector guarantee Good Repeatability and Interchangeability

OEM Housing kits Color, OEM boot Colors

## Standard Compliance

- TIA 604 (FOCIS)
- TIA/EIA 492AAAE
- IEC 61754
- IEC 60793-2-10
- IEC61300-3-35
- YD/T1272.1-2003
- RoHS, ISO9001 Compliant

## Features

- High quality zirconia ferrules.
- Good repeatability and interchange.
- Flame-retardant, rugged and durable jacket.
- 100% optically tested for insertion loss to ensure high quality

## Application

- Data Center
- Enterprise
- Fiber to the X (FTTX)
- LAN and WAN
- CATV Network
- Telecommunications Network

## Connector Type

### LC

Standard boot . Short boot

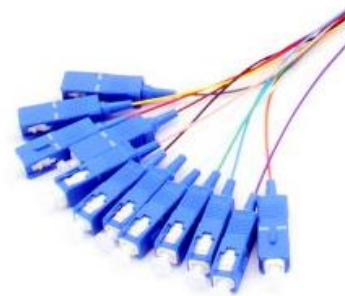
Typical Applications : High-density connections, SFP and SFP+ transceivers, XFP transceivers.



### SC

Standard boot , Short boot

Typical Applications : Telecom; GPON; EPON; GBIC.



### FC

Standard boot

Typical Applications : Datacom, Telecom, measurement equipment, single-mode lasers



### ST

Standard boot

Typical Applications : Datacom





Connector Type

E2000

Typical Applications : Telecom,  
DWDM

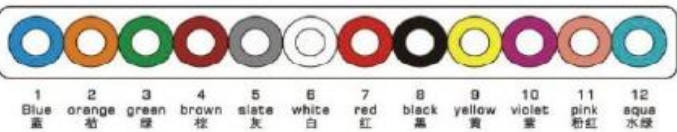


MU: Standard boot

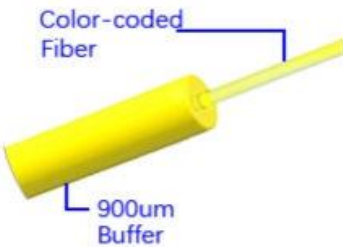
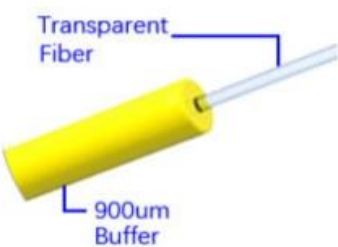
Typical Applications: LAN,  
Telecommunication Network



Available for 12 colors,The 900um  
buffer and fiber same color coded



Standard 900um Cable      Color-coded 900um Cable



Connector Standard

SC: TIA/EIA, FOCIS3, GR-326.NTT-SC IEC61754-4 and JIS C5973.  
LC: TIA/EIA, FOCIS10, GR-326 EIA/TIA-604-10, IEC61754-20 and JIS C5973.  
FC: EIA /TIA-604-04, FOCIS4, NTT-FC, GR-326. IEC61754-13 and JIS C5973  
ST: TIA/EIA, FOCIS2, GR-326. IEC61754-2 and JIS C5973 Etc.  
MU: TIA/EIA-604-3A, GR-326.NTT-MU, JIS and IEC.  
E2000: IEC61754-15

Optical Specifications

Insertion loss	≤0.3dB Mean (Max)	Interchangeability	≤0.2dB
Return loss	SM UPC≥50dB(min) SM APC≥60dB(min) MM PC≥35dB(min)	Vibration	≤0.2dB
Operating temperature	-40~75°C	Maximum pulling force	6N(900um cable) 70N(2.0mm cable) 100N(3.0mm cable)

Geometric Specification( if Customer requested)

Items		Parameter	
Polishing		PC	APC
ROC	SC/FC/ST	10 ~ 25	5 ~ 12
	LC/MU	7~ 25	5 ~ 12
Apex Offset		≤ 50	
Fiber Spherical Height		±100	
Angle		± 0.5	8 ± 0.5

## Polishing Method

UPC(Ultra-Polished connector)



APC( 8 Angled Polished connector)



## Polishing End-face



SM UPC



SM APC



MM PC

## End-face Quality (SM)

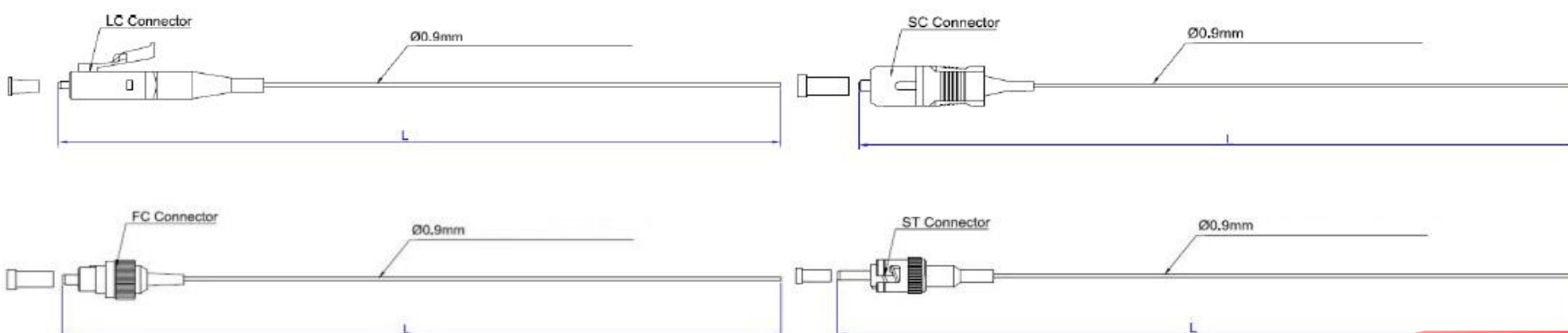
Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## End-face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## Length Tolerance

Overall Length(L)(m)	length of tolerance(cm)
$0 < L < 1$	+5/-0
$1 < L < 10$	+10/-0
$10 < L < 40$	+15/-0
$40 < L$	+0.5% x L/-0



## Packaging

This easily taken and well-protected fiber patch cable package has been labeled and marked by TRULINK as default . Standard carton size : 34\*22\*15 cm; 44\*34\*24 cm ; 54\*39\*34 cm . Which carton to be used depends on goods Qty . Packing can be customized



1,Self-seal PE Bag + Bubble Bag

2, Paperboard+bubble bag

3, Blister box



4, Paper Carton



5,fumig-free freight tray

## OME Service

- Cable color, material of cable jacket, connector's color
- OEM Label&Box, Identify ring, cable's label, box, shipping marks
- Different quality Level.

## Order Instruction

Pigtail	Fiber count	Fiber Grade	Connector	Cable OD	Out jacket	Buffer	Fiber color	length
E	T1 - 12 Colors/set Standard Quality, No Geometric request	1 - G652D	A LC UPC	1 - 0.6mm	H- LSZH	1-Tight	1-colored	1=1m
		2 - G657A1	B SC UPC	2 - 0.9mm	C - PVC	2-Loose	2-transparent	...
		3 - G657A2/B2	C FC UPC	3 - 1.2mm	R - OFNR	3-Simi-tight		
		4 - G657B3	D ST UPC	4 - 1.6mm	P - OFNP			
		5 - OM1	E LC APC	5 - 1.7mm				
		6 - OM2	F SC APC	6 - 2.0mm				
		7 - OM3	G FC APC	7 - 2.4mm				
		8 - OM4	H ST APC	8 - 2.6mm				
		9 - OM5	I E2000 UPC	9 - 2.8(3.0)mm				
	T2 - 12 Colors Standard Quality,Geom etric passed request		J E2000 APC					
			L DIN UPC					
			M DIN APC					
			N D4					
			O MU UPC					
			P MU APC					
			R LX.5 UPC					
			S LX.5 APC					



## Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
1G	1000BASE-LX	OM5	850nm	550m
		OM4	1300nm	550m
		OM3	1300nm	550m
		OM2	1300nm	550m
		OM1	1300nm	550m
		SMF	1310nm	10km
	1000BASE-SX	OM4	850nm	550m
		OM3	850nm	550m
		OM2	850nm	550m
		OM1	850nm	275m
10G	10GBASE-SR	OM4	850nm	400m
		OM3	850nm	300m
		OM2	850nm	82m
		OM1	850nm	33m
	10GBASE-LRM	OM5	850nm	220m
		OM3	1300nm	220m
		OM2	1300nm	220m
		OM1	1300nm	220m
	10GBASE-LR	SMF	1310nm	10km
	10GBASE-ER	SMF	1550nm	30-40km
	10GBASE-ZR	SMF	1550nm	80-100km
40G	40G-BIDI	OM5	850nm	200m
		OM4	850nm	150m
		OM3	850nm	100m
	40GBASE-SR4	OM5	850nm	150m
		OM4	850nm	150m
		OM3	850nm	100m
	40G-SWDM4	OM5	850nm	440m
		OM4	850nm	350m
		OM3	850nm	240m
	40GBASE-LR4	SMF	1310nm	10km

## Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
100G	100GBASE-SR4	OM5	850nm	100m
		OM4	850nm	100m
		OM3	850nm	70m
	100G-SWDM4	OM5	850nm	150m
		OM4	850nm	100m
		OM3	850nm	75m
	100GBASE-SR10	OM4	850nm	125m
		OM3	850nm	100m
	100GBASE-LR4	SMF	1310nm	10km
	100GBASE-ER4	SMF	1310nm	40km

## How to Choose The Right Fiber Optic Cable Type?

Designation	Fiber Dia. (μm)	Type	Fast Ethernet 100BASE-FX	1 Gigabit Ethernet 1000BASE-SX	1 Gigabit Ethernet 1000BASE-LX	10Gbps Ethernet 10GBASE	40Gbps Ethernet 40GBASE SR4	100Gbps Ethernet 100GBASE SR4
OM1	62.5/125	Multi - mode	2000 Meters	275 Meters	550 Meters	33 Meters	Not sup- ported	Not sup- ported
OM2	50/125	Multi -	2000 Meters	550 Meters	550 Meters	82 Meters	Not sup-	Not sup-
OM3(Laser Optimized)	50/125	Multi - mode	2000 Meters	550 Meters	550 Meters	300 Meters	100 Me- ters(SR4)	100 Meters (SR4)
OM4(Laser Optimized)	50/125	Multi - mode	2000 Meters	550 Meters	550 Meters	400 Meters	150 Me- ters(SR4)	150 Meters (SR4)
Singlemode	9/125	Single- mode	2000 Meters	5km at 1310nm	5km at 1310nm	10km at 1310nm	N/A	N/A

PS:The difference of OM4 and OM3 fiber mode as the following

1. OM4 was developed specifically for VCSEL laser transmission and allows 10 Gig / second link distances of up to 550 Meters (compared to 300M with OM3).
2. The effective modal bandwidth for OM4 is more than double that of OM3.

# 12F MPO – MPO TRUNK CABLES

Ideal for Data Center High Density Cabling System



RoHS



Description

**MPO-MPO 3.0mm LSZH Patch cable/trunk cable.** MPO Fiber Patch cable/trunk cable is terminated with MPO connector on both ends. MPO Patch cable/trunk cables connect MPO modules together as a permanent link. The Patch cable/trunk cables are available with 12, 24, 48,60,72 ,96,144fibers. Support speeds up to 10/40/100Gbps data center solutions. They are typically adopted to interconnect cassettes, panels or ruggedized MPO fan-outs, and to facilitate rapid deployment of high-density backbone cabling in data centers and other high fiber environments. Besides, MPO also provides much flexibility and convenience once you have to change the connector style in the patch panels. Instead of changing the connector on the cable trunk, just installing a new cassette with the new connector style on the cross-connect side of the patch panel.



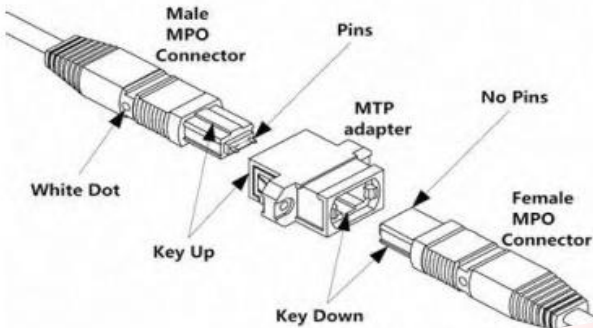
Products Materials

Connector	Reference	Housing Details
MPO Singlemode	IEC 61754-7	SM APC: Green connectors+black boot (Standard Loss MPO) SM APC: Yellow connectors+black boot (Super low loss MPO)
MPO Multimode	IEC 61754-7	OM1&OM2 PC: Beige connectors+black boot (Standard Loss MPO) OM3&OM4 PC: Aqua connectors+black boot (Standard&Super low loss MPO) OM3&OM4 PC: Heather Violet connectors+black boot (Standard loss MPO)

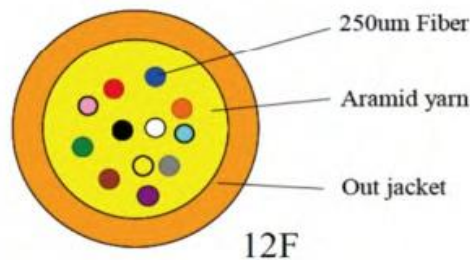
IEC Standard IEC-61754-7; IEC61755, Telcordia GR-1435-CORE, JIS C5982; TIA-604-5(FOCIS5) compliant  
Structured cabling per TIA-568-C  
10G Fiber Channel Compliant  
40G and 100G IEEE 802.3

Connector	Fiber Channel
<div><div>Key-Up</div><div></div><div>MPO (Male) - Pins</div></div> <div><div>Key-Up</div><div></div><div>MPO (Female) - No Pins</div></div>	<div></div> <div>12 Fibers</div>
MPO Connectors	

Note: Female connector need to connect with male connector type.



## Cable Parameters- 12F Microfiber cable



Fiber Count	OD(mm)	Minimum allowable Tensile Strength (N)	minimum allowable Crush Load(N/100mm)	Minimum Bending Radius(MM)
12	3.0±0.15	Short-term: 180; Long-term: 90	Short-term: 500; Long-term: 150	Static: 10D Dynamic: 20D

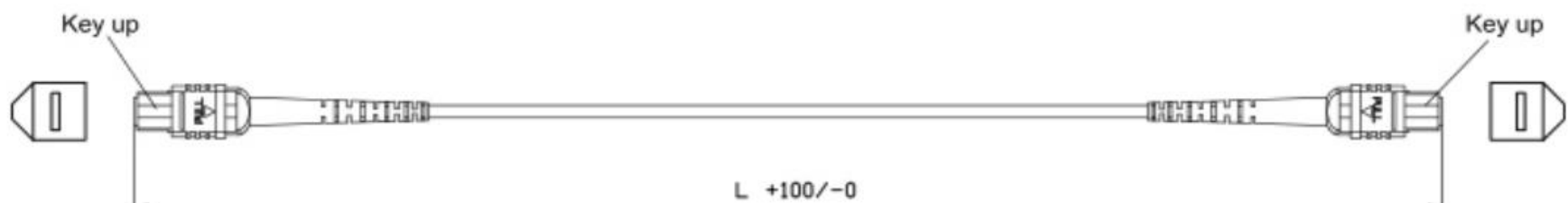
## Optical Specifications

Spec items.	Single mode (APC 8-degree polished)	Multimode (PC Flat polish)
Insertion loss (MPO) (IEC 61300-3-34)	Standard loss: $\leq 0.75\text{dB}(\text{max})$ , $\leq 0.50\text{dB}(\text{Typical})$ Super Low loss: $\leq 0.35\text{dB}(\text{max})$ , $\leq 0.20\text{dB}(\text{Typical})$	Standard loss: $\leq 0.6\text{dB}(\text{max})$ , $\leq 0.50(\text{Typical})$ Super Low loss: $\leq 0.35\text{dB}(\text{max})$ , $\leq 0.20\text{dB}(\text{Typical})$
Return loss(MPO)	$\geq 60\text{dB}$ (8degree polishing)	$\geq 25\text{dB}$
Durability	$< 0.3\text{dB}$ typical change, 200 matings	
Interchangeability	$\leq 0.2\text{dB}$	
Tensile strength	$> 70\text{N}$	
Operating Temperature	$-40$ to $+ 85^{\circ}\text{C}$	

## MPO End-Face 3D Interference Index

Item (IEC-61300-3-30)			Minimum	Maximum
Radius of curvature (mm)	ROC-X(ABS)		2000	\
	ROC-Y(ABS)		50mm	\
Angle	Angle-X		-0.2°	-0.2°
	Angle-Y	APC	7.85°	8.15°
		PC	-0.2°	-0.2°
Fiber height (nm)			1000nm	3500nm
Max.DH.All Fiber:			-300nm	300nm
DH.Adj:			-300nm	300nm
DH.Ave Fiber:			-300nm	300nm
Core Dip:	SM		N/A	N/A
	MM		-200nm	300nm

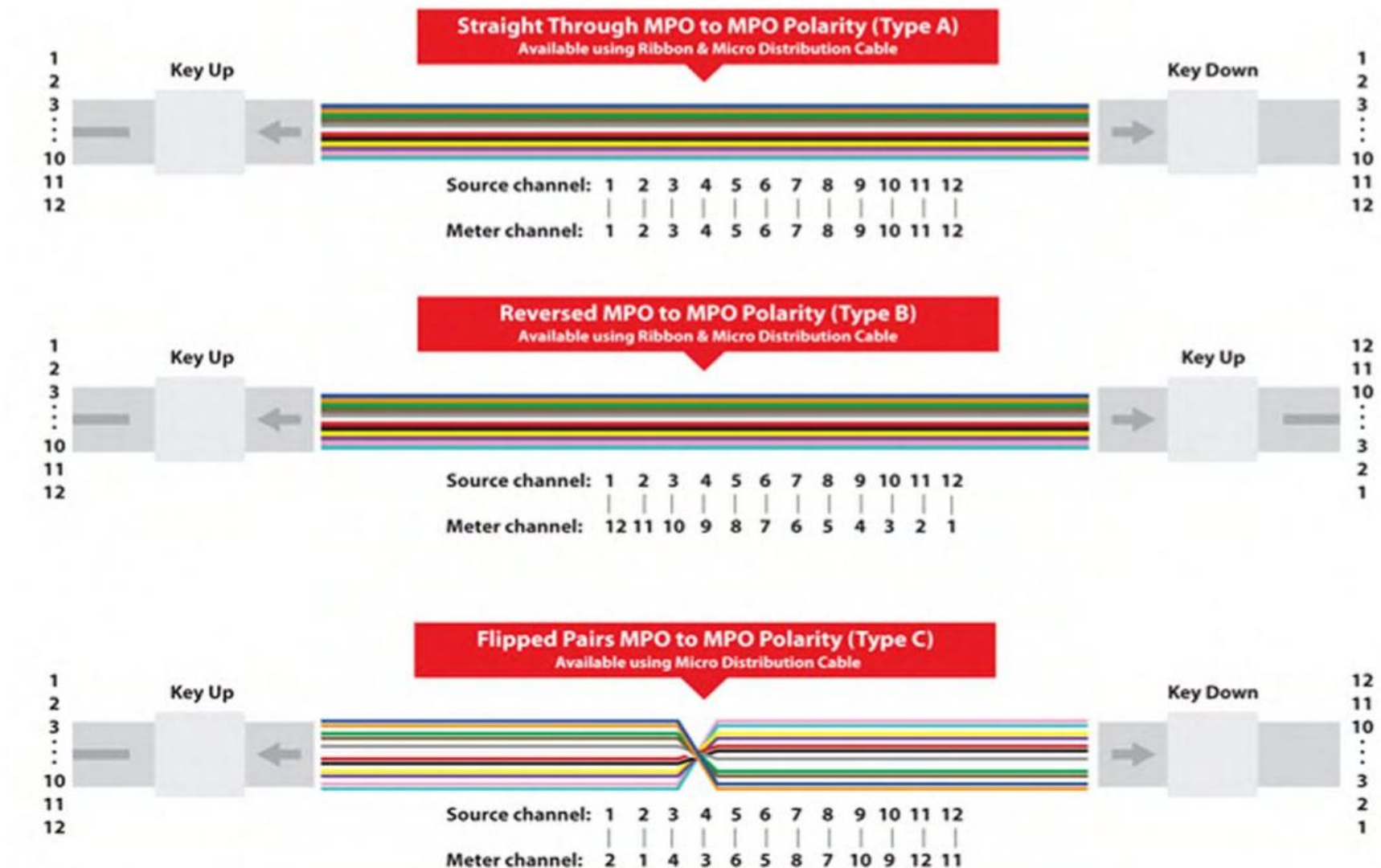
## MPO-MPO 12F Trunk cable drawing.



Overall Length(L)(m)	length of tolerance(cm)
$0 < L < 1$	$+5/-0$
$1 < L < 10$	$+10/-0$
$10 < L < 40$	$+15/-0$
$40 < L$	$+0.5\% \times L/-0$

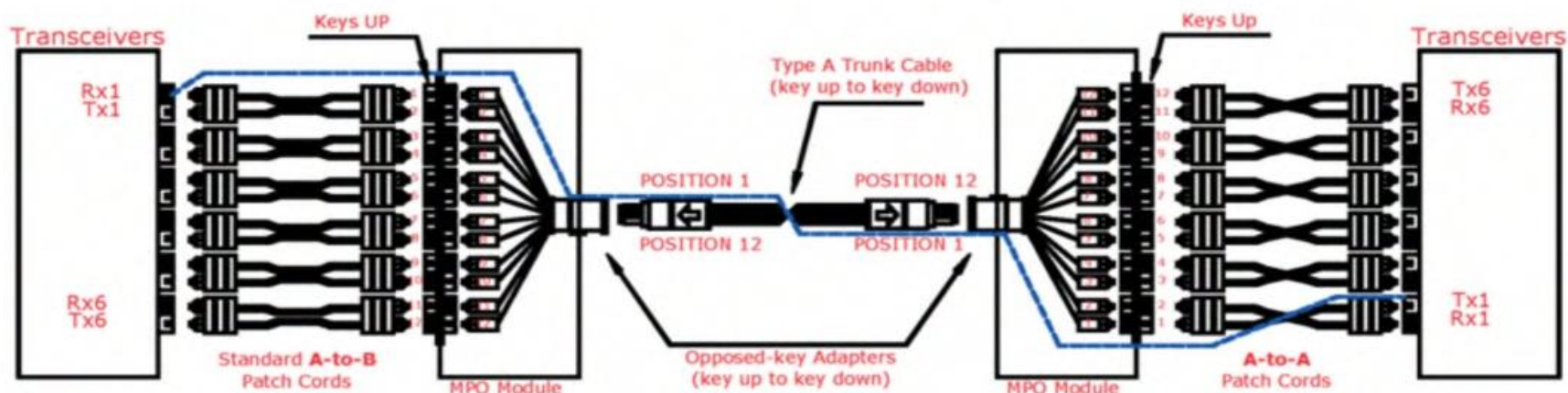


## Three Connection Methods Help Keep the Right MTP/MPO Polarity



### 1. Polarity A connection

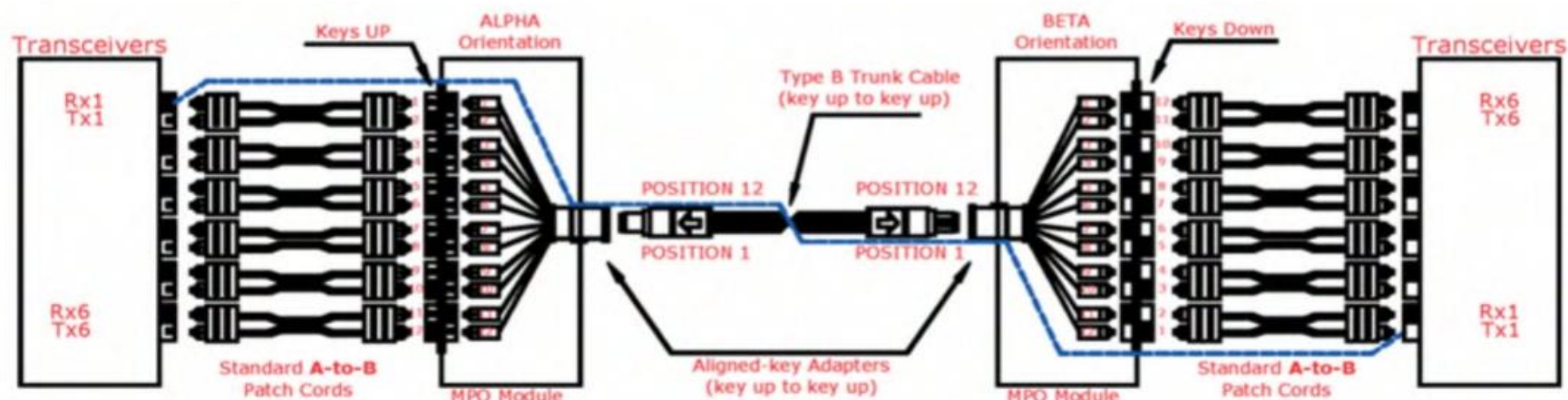
Polarity A MPO cables use a key up, key down design. Therefore, as shown in the figure below, the position 1 of one connector is corresponding to the position 1 of another connector. There is no polarity flip. Therefore, when we use polarity A MTP cable for connection, we must use A-B duplex patch cables on one end and A-A duplex patch cables on the other end. Since in this link, Rx1 must connect to Tx1. If we don't use A-A duplex patch cable, according to the design principle of polarity A MTP cable, fiber 1 may transmit to fiber 1, that is to say Rx1 may transmit to Rx1, which may cause errors.





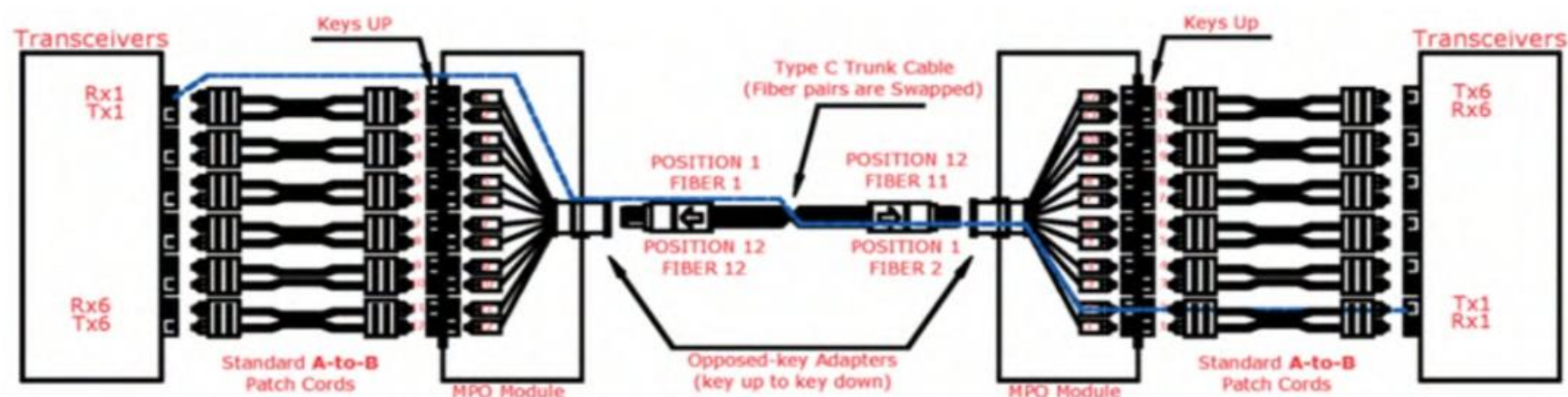
## 2. Polarity B connection

Polarity B MTP cables use a key up, key up design. Therefore, as shown in the figure below, the position 1 of one connector is corresponding to the position 12 of another connector. Therefore, when we use polarity B MTP cable for connection, we should use a A-B duplex patch cables on both ends. Since the key up to key up design help to flip the polarity, which makes fiber 1 transmit to fiber 12, that is the Rx1 transmits to Tx1.



## 3. Polarity C connection

Like the polarity A MPO cables, polarity C MPO cables also use a key up, key down design. However, within in the cable, there is a fiber cross design, which makes the position 1 of one connector is corresponding to the position 2 of another connector. As shown in the figure below, when we use polarity C MTP cable for connection, we should use a A-B duplex patch cables on both ends. Since the cross fiber design help to flip the polarity, which makes fiber 1 transmit to fiber 2, that is the Rx1 transmits to Tx1.



### AVAILABILITY:

Ribbon and bundle cable available;  
Patch cord, pigtail cable assemblies available.  
MT-MT ribbon patch cord is available.  
MPO Loopback Cable available

### Push Pull Tab For Senko MPO



**The merits of MTP/MPO Patch cable/trunk cable generally include:**

- High quality—MTP/MPO Patch cable/trunk cables are factory pre-terminated, tested and packaged along with the test reports. These reports serve as long-term documentation and quality control.
- Decreasing cable volume—MTP/MPO Patch cable/trunk cables have very small diameters, which decrease the cable volume and improve the air-conditioning conditions in data centers.
- Time saving—With the special plug and play design, MTP/MPO Patch cable/trunk cables can be incorporated and immediately plugged in. It greatly helps reduce the installation time.

**Features:**

- Low insertion loss, high return loss
- MT based Multi-fiber Connector, 4,8,12 and 24 fiber connector terminations and assemblies
- Economical solution for mass-termination of fiber
- Designed for low loss and standard loss SM and MM applications
- Ruggedized round cable, oval cable and bare ribbon options available
- Color coded housings available to differentiate fiber type, polish type and/or connector grade
- Good in repeatability and exchangeability

**Application**

- All of NH-LINK’s MPO Connectors are from Senko/Nissin/Sumitomo. MPO Patch cable/trunk cable is a kind of high densi-ty cable assemblies which is generally use in three areas.
- 1, The Data Center application with high dense degree environment
  - 2, The optical fiber to the building
  - 3, The internal connector application in fiber equipment.

**Packaging**

This easily taken and well-protected fiber patch cable package has been labeled and marked by TRULINK as default . Standard carton size : 34\*22\*15 cm; 44\*34\*24 cm ; 54\*39\*34 cm . Which carton to be used depends on goods Qty . Packing can be customized



1, Self-seal PE Bag

2 Bubble Bag

3, Paper Carton

4, fumig-free Pallet

- OME service
- 1, Cable color, printing word, material of cable jacket, connector’s color

2, OEM Label, Identify ring, cable’s label, box, shipping marks

3. Different quality Level.

## Order Index

Products	Fiber&cable	Fiber	Quality	Pin	Cable Jacket	Cable Color	Polarity	length
M1 -Senko MPO without tab	1-8F round cable	1-G652D	1-Standard loss	1-F to F	H-LSZH	A-Blue	A-Polarity A	1-1m
M2-MTP without tab	2-12F round cable	2-G657A1	2-Super low loss	2-F to M	C-PVC	B-Orange	B-Polarity B	1.5-1.5m
M3-China MPO	3-16F round cable	3-G657A2/B2		3-M to M	F-OFNR	C-Green	C-Polarity C	2-2m
M4-Senko MPO with tab	4-20F round cable	4-G657B3			P-OFNP	D-Brown		
M5-MTP with tab	5-24F round cable	5-BIF om1			U-PU	E-Grey		
	6-8F ribbon cable	6-BIF om2			...	F-White		
	7-12F ribbon cable	7-BIF om3			...	G-Red		
	8-8F ribbon bare fiber	8-BIF om4				H-Black		
	9-12F ribbon bare fiber	9-BIF om5				I-Yellow		
						J-Purple		
						K-Pink		
						L-Aqua		
						M-Magenta		



## 24F MPO – MPO TRUNK CABLES

Ideal for Data Center High Density Cabling System



Description

**MPO-MPO 3.0mm LSZH Patch cable/trunk cable.** MPO Fiber Patch cable/trunk cable is terminated with MPO connector on both ends. MPO Patch cable/trunk cables connect MPO modules together as a permanent link. The Patch cable/trunk cables are available with 12, 24, 48,60,72 ,96,144fibers. Support speeds up to 10/40/100Gbps data center solutions. They are typically adopted to interconnect cassettes, panels or ruggedized MPO fan-outs, and to facilitate rapid deployment of high-density backbone cabling in data centers and other high fiber environments. Besides, MPO also provides much flexibility and convenience once you have to change the connector style in the patch panels. Instead of changing the connector on the cable trunk, just installing a new cassette with the new connector style on the cross-connect side of the patch panel.



Products Materials

Connector	Reference	Housing Details
MPO Singlemode	IEC 61754-7	SM APC: Green connectors+black boot (Standard Loss MPO) SM APC: Yellow connectors+black boot (Super low loss MPO)
MPO Multimode	IEC 61754-7	OM1&OM2 PC: Beige connectors+black boot (Standard Loss MPO) OM3&OM4 PC: Aqua connectors+black boot (Standard&Super low loss MPO) OM3&OM4 PC: Heather Violet connectors+black boot (Standard loss MPO)

IEC Standard IEC-61754-7; IEC61755, Telcordia GR-1435-CORE, JIS C5982; TIA-604-5(FOCIS5) compliant  
Structured cabling per TIA-568-C  
10G Fiber Channel Compliant  
40G and 100G IEEE 802.3

Connector	Fiber Channel
<div><div>Key-Up</div><div>MPO (Male) - Pins</div></div> <div><div>Key-Up</div><div>MPO (Female) – No Pins</div></div>	
MPO Connectors	24 Fibers

Note: Female connector need to connect with male connector type.

## Cable Parameters- 12F Microfiber cable



Fiber Count	OD(mm)	Minimum allowable Tensile Strength (N)	minimum allowable Crush Load(N/100mm)	Minimum Bending Radius(MM)
24	3.0±0.15	Short-term: 180; Long-term: 90	Short-term: 500; Long-term: 150	Static: 10D Dynamic: 20D

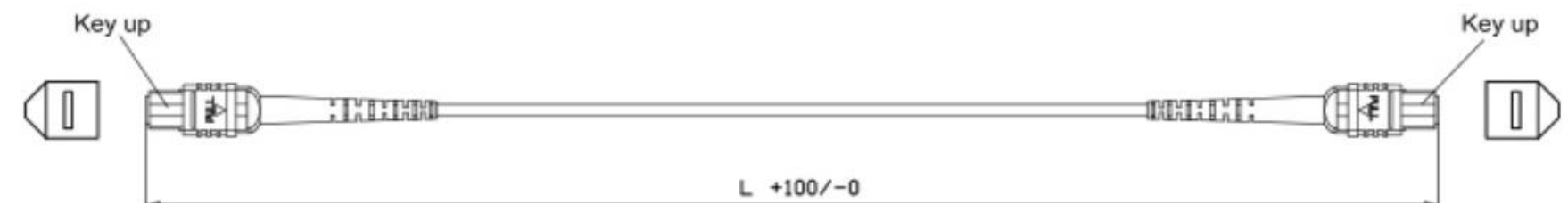
## Optical Specifications

Spec items.	Single mode (APC 8-degree polished)	Multimode (PC Flat polish)
Insertion loss (MPO) (IEC 61300-3-34)	Standard loss: $\leq 0.75\text{dB}(\text{max})$ , $\leq 0.50\text{dB}(\text{Typical})$ Super Low loss: $\leq 0.35\text{dB}(\text{max})$ , $\leq 0.20\text{dB}(\text{Typical})$	Standard loss: $\leq 0.6\text{dB}(\text{max})$ , $\leq 0.50(\text{Typical})$ Super Low loss: $\leq 0.35\text{dB}(\text{max})$ , $\leq 0.20\text{dB}(\text{Typical})$
Return loss(MPO)	$\geq 60\text{dB}$ (8degree polishing)	$\geq 25\text{dB}$
Durability	$< 0.3\text{dB}$ typical change, 200 matings	
Interchangeability	$\leq 0.2\text{dB}$	
Tensile strength	$> 70\text{N}$	
Operating Temperature	$-40$ to $+ 85^{\circ}\text{C}$	

## MPO End-Face 3D Interference Index

Item (IEC-61300-3-30)			Minimum	Maximum
Radius of curvature (mm)	ROC-X(ABS)		2000	\
	ROC-Y(ABS)		50mm	\
Angle	Angle-X		-0.2°	-0.2°
	Angle-Y	APC	7.85°	8.15°
		PC	-0.2°	-0.2°
Fiber height (nm)			1000nm	3500nm
Max.DH.All Fiber:			-300nm	300nm
DH.Adj:			-300nm	300nm
DH.Ave Fiber:			-300nm	300nm
Core Dip:	SM		N/A	N/A
	MM		-200nm	300nm

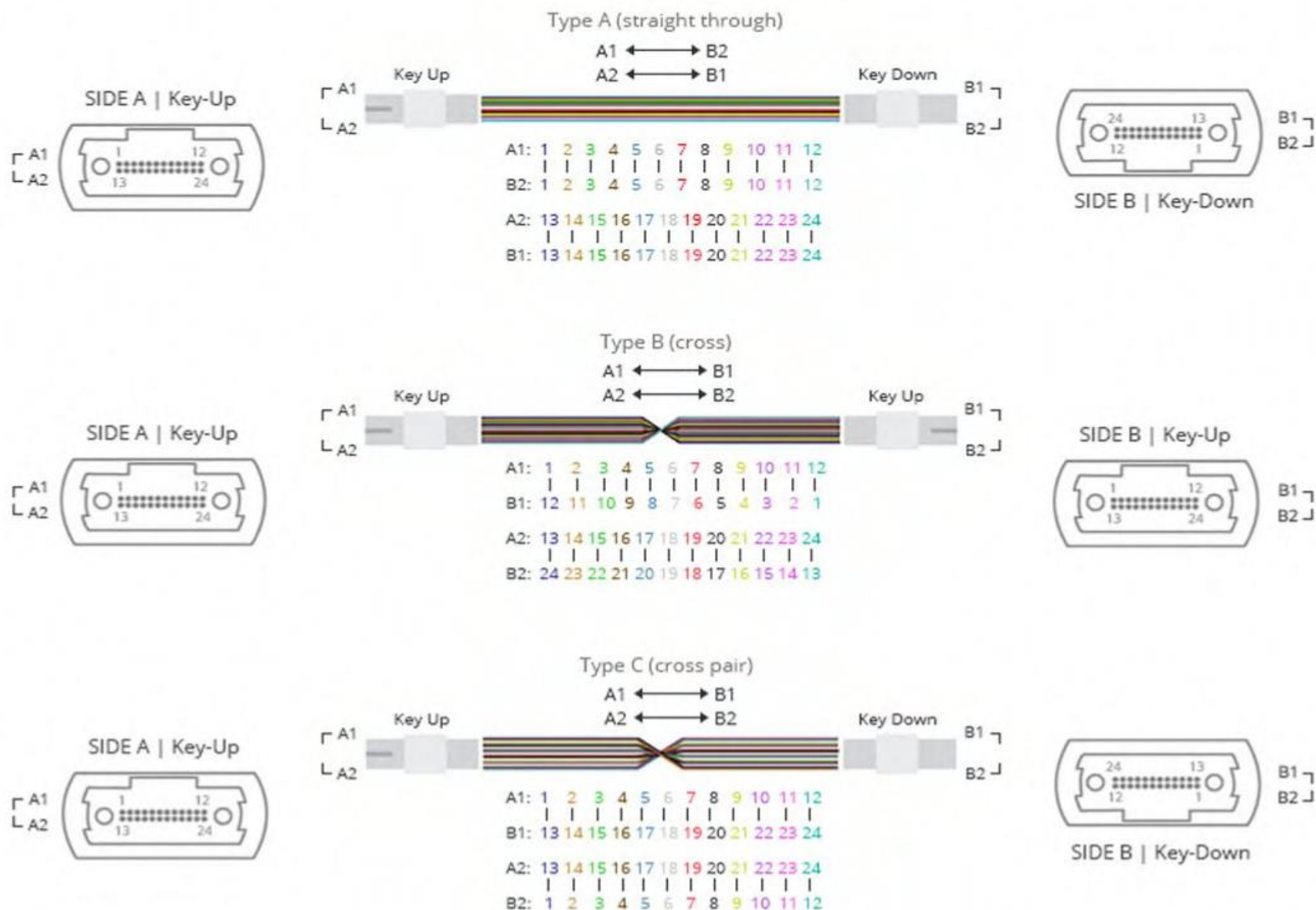
## MPO-MPO 12F Trunk cable drawing.



Overall Length(L)(m)	length of tolerance(cm)
$0 < L < 1$	$+5/-0$
$1 < L < 10$	$+10/-0$
$10 < L < 40$	$+15/-0$
$40 < L$	$+0.5\% \times L/-0$

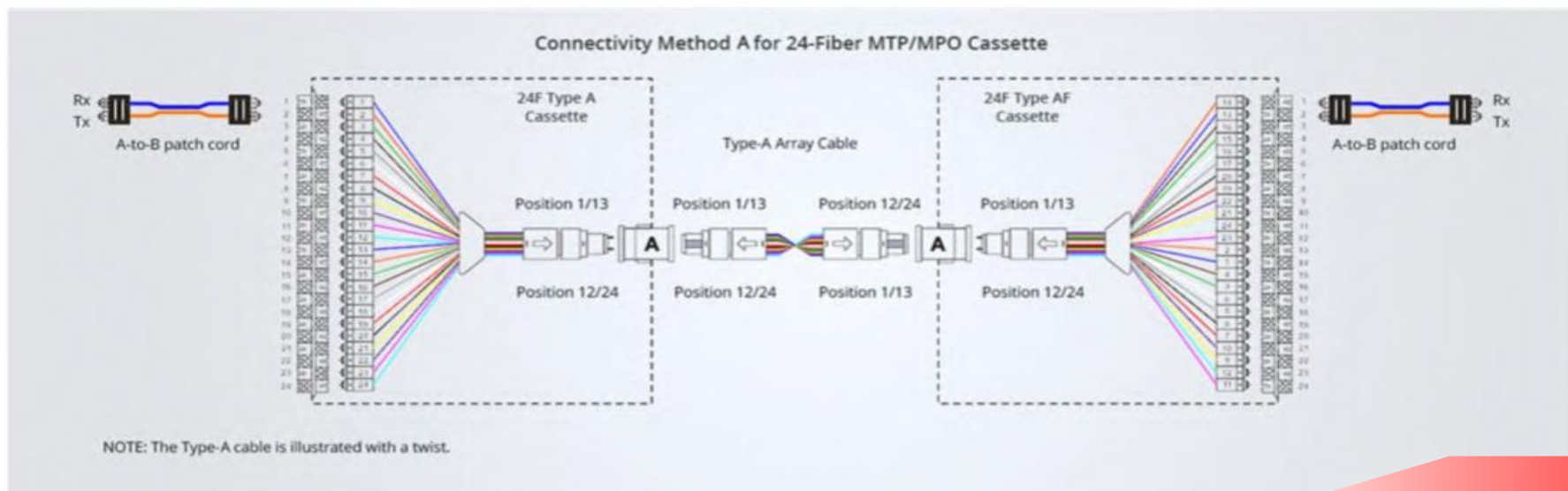


## Three Connection Methods Help Keep the Right MTP/MPO Polarity



## Base-24 Polarity Solution

To catch up with the increased demand for higher bandwidth, 24-fiber MTP/MPO cable is introduced to facilitate migration to 100G network. It doubles the density of 12-fiber cabling in the same footprint, which reduces the fiber count, allows for fewer cable pathway, and improving airflow. The polarity maintenance of base-24 MTP/MPO cabling, however, is more complicated. NH-LINK recommends the Type A (key-up to key-down) MTP/MPO trunk cable. With our Type A and Type AF cassette, no need for A-to-A patch cable any more. The connectivity method is illustrated in the following picture

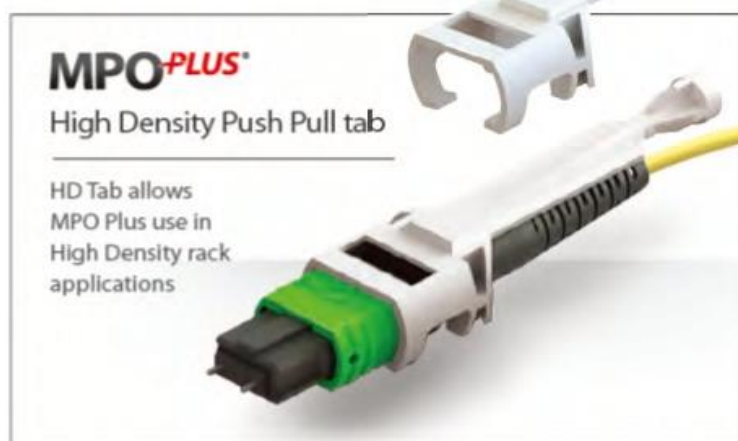


## AVAILABILITY:

Ribbon and bundle cable available;  
Patch cord, pigtail cable assemblies available.  
MT-MT ribbon patch cord is available.  
MPO Loopback Cable available



## Push Pull Tab For Senko MPO



## The merits of MTP/MPO Patch cable/trunk cable generally include:

High quality—MTP/MPO Patch cable/trunk cables are factory pre-terminated, tested and packaged along with the test reports. These reports serve as long-term documentation and quality control.

Decreasing cable volume—MTP/MPO Patch cable/trunk cables have very small diameters, which decrease the cable volume and improve the air-conditioning conditions in data centers.

Time saving—With the special plug and play design, MTP/MPO Patch cable/trunk cables can be incorporated and immediately plugged in. It greatly helps reduce the installation time.

## Features:

Low insertion loss, high return loss

MT based Multi-fiber Connector, 4,8,12 and 24 fiber connector terminations and assemblies

Economical solution for mass-termination of fiber

Designed for low loss and standard loss SM and MM applications

Ruggedized round cable, oval cable and bare ribbon options available

Color coded housings available to differentiate fiber type, polish type and/or connector grade

Good in repeatability and exchangeability

## OME service

- 1, Cable color, printing word, material of cable jacket, connector's color
- 2, OEM Label, Identify ring, cable's label, box, shipping marks
- 3, Different quality Level.

## Packaging

This easily taken and well-protected fiber patch cable package has been labeled and marked by TRULINK as default . Standard carton size : 34\*22\*15 cm; 44\*34\*24 cm ; 54\*39\*34 cm . Which carton to be used depends on goods Qty . Packing can be customized



1,Self-seal PE Bag



2 Bubble Bag



3, Paper Carton



4,fumig-free Pallet

## Application:

All of NH-LINK's MPO Connectors are from Senko/Nissin/Sumitomo. MPO Patch cable/trunk cable is a kind of high den-sity cable assemblies which is generally use in three areas.

- 1, The Data Center application with high dense degree environment
- 2, The optical fiber to the building
- 3, The internal connector application in fiber equipment.

## Order Index

Products	Fiber&cable	Fiber	Quality	Pin	Cable Jacket	Cable Color	Polarity	length
M1 -Senko MPO without tab	1- 8F round cable	1-G652D	1-Standard loss	1-F to F	H-LSZH	A-Blue	A-Polarity A	1-1m
M2-MTP without tab	2-12F round cable	2-G657A1	2-Super low loss	2-F to M	C-PVC	B-Orange	B-Polarity B	1.5-1.5m
M3-China MPO	3-16F round cable	3-G657A2/B2		3-M to M	F-OFNR	C-Green	C-Polarity C	2-2m
M4-Senko MPO with tab	4- 20F round cable	4-G657B3			P-OFNP	D-Brown		..
M5-MTP with tab	5-24F round cable	5-BIF om1			U-PU	E-Grey		
	6-8F ribbon cable	6-BIF om2			...	F-Whitie		
	7-12F ribbon cable	7-BIF om3			...	G-Red		
	8-8F ribbon bare fiber	8-BIF om4				H-Black		
	9-12F ribbon bare fiber	9-BIF om5				I-Yellow		
						J-Purple		
						K-Pink		
						L-Aqua		
						M-Magenta		





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