

HANGZHOU FCJ OPTO TECHNOLOGY CO.,LTD.



Company Introduction
Product Display



catalogue



01-Company Introduction



02-Enterprise Honor



03-Product Introduction



**04-Market localization
and Customer Groups**



Founded in 1985, FCJ Group is one of China's top 500 private enterprises. "Energy conservation and environmental protection, electrical equipment, information and communication" are the three core industries of the group.

Two A-share listed subsidiaries: Hangzhou cable shares and Fuchun environmental protection



股票代码 (SYM) : 603618



股票代码 (SYM) : 002479



FCJ OPTO TECH belongs to FCJ Group, mainly concentrated on Communication Industry. The company founded in 1985 which developed the first communication optical fiber cable in Zhejiang Province, with over 30 years of experience in manufacturing optical fiber cables and components. The company has been covering the full range of optical communication industry now, such as Preform, optical fibers, optical fiber cables and all related components etc., The annual production capacity is 600 tons optical preforms, 30 million kilometers optical fibers, 20 million kilometers communication optical fiber cables, 1 million kilometers FTTH cables and 10 million sets of various passive devices. We mainly service for telecom operators, engineering contractors, distributors etc., such as China Mobile, China Telecom, China Unicom, Malaysia Telecom, Nepal Telecom, Egypt Telecom, Sri Lanka Telecom, Telefónica etc., Our products have exported to all over the world, not only limited to the north & south America, Europe, Southeast Asia, but also Middle East and Africa etc., It is our pleasure to build business relationship with you. For future cooperation, please contact us freely. We do will be your most trustworthy partner!



富春江集团
FCJ GROUP



浙江富春江光电科技有限公司
ZHEJIANG FUCHUNJIANG PHOTOELECTRIC
SCIENCE & TECHNOLOGY CO.,LTD



杭州永特信息技术有限公司
Hangzhou Yongte Information Technology
Co., Ltd.

Through years of market and brand accumulation, the leading products "Fuhang" brand and "FCJ" brand communication cable, optical cable has been rated as China famous brand products and Zhejiang famous trademark. Products have a wide range of profile and reputation, brand value improve steadily . The company's product quality has been recognized by domestic and foreign customers, and has been awarded the top 100 electronic information enterprises in China, the top 10 innovative enterprises in China's information industry, and the top 10 enterprises with the most comprehensive competitiveness of optical communication in China for many times.



The Top 10 Most Competitive Enterprise in 2019



Member Certificate of Zhejiang Wire and Cable Industry Association in 2019



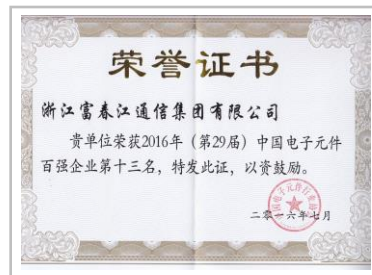
China Optical Cable Quality Supplier in 2018



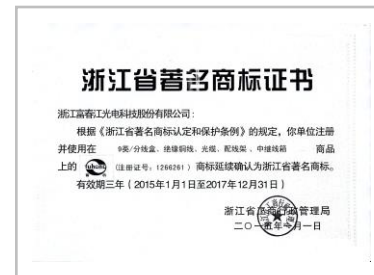
Certificate of High-tech Enterprise



Cable 3A Grade Credit Unit



Top 100 Electronic Components



Famous Trademark of Zhejiang Province



Outstanding Contribution Award of China Electronic Components Association



Certificate of Registration of Scientific and Technological Achievements (plc)



Hangzhou Innovative Pilot Enterprise in 2010



Registration Certificate of Scientific and Technological Achievements in 2010



Certificate of High-tech Enterprise



Zhejiang Excellent Industrial Product Certificate



PLC Chip Torch Plan



Torch Plan-Super Tensile Special Cable



PLC Torch Plan Certificate



National Torch Plan Project Certificate



Optical preform

Optical fiber

Optical cable

Optical device



- Fiber prefabricated preform -

Product Categories

It has a series of fiber prefabricated preforms that meet the requirements of G. 652d, G657A1, G657A2 and G655.

Key Technical Indicators

Fiber prefabricated preforms with different average outer diameters and effective lengths,

Average outer diameter from 90 to 200mm, effective length from 1000mm to 3000mm;

Optical fiber product index reached and superior to ITU-T standard;

The VAD core technology enables the fiber to have no additional absorption at 1383nm.

Meet the production requirements of zero water peak optical fiber

High purity synthetic quartz was prepared by flame hydrolysis

In the clean workshop, the high specification silicon tetrachloride (SiCl_4) hydrolyzed in hydrogen and oxygen flame to generate sub-micron silicon dioxide (SiO_2) particles, one burner or more which used to react stack sub-micron particles into column powder (Soot). Accurate flame temperature control and doping process realize the distribution of and refractive index distribution in radial and axial direction. The powder is dehydrated in a heating furnace with chlorine gas (Cl_2) and helium gas (He), and then burned into a high purity transparent glass prefabricated preform.

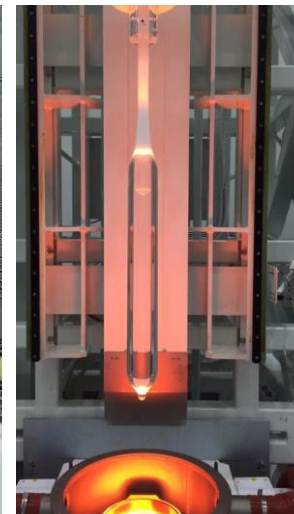


Cladding was prepared by external vapor deposition process

High deposition rate, large size, drawable length of single prefabricated preform is over 2000km.

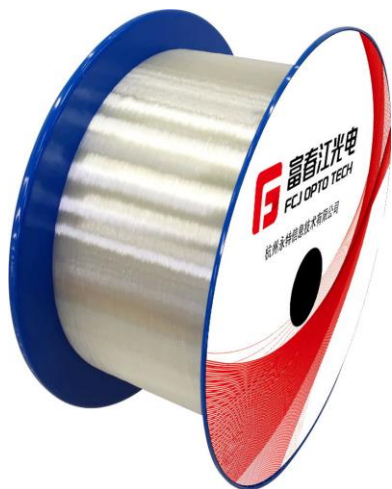
Core preform was prepared by vapor axial deposition process

Axial growth of powder, without central condensation hole while it is sintered, have the lowest hydroxyl content within the four processes and can prepare zero water peak fiber;
Fluorine doping process reduce germanium dioxide content of the core layer and possess lower intrinsic loss;
Multiple blowtorch technology with independent intellectual property rights and rich refractive index profile design, can prepare G652, G657 and related optical fibers of G655.



Extension technology

Achieve the core of prefabricated preform, precise control of cladding diameter, fiber geometry, optical index uniformity is better.


Specifications

Nondispersion-shifted Single-mode Fiber with Wavelength-segment Extension (G652D)

Execution standard

It meets and exceeds the requirements of ITU-T G.652.D&IEC B1.3 optical fiber technical specification

Product features

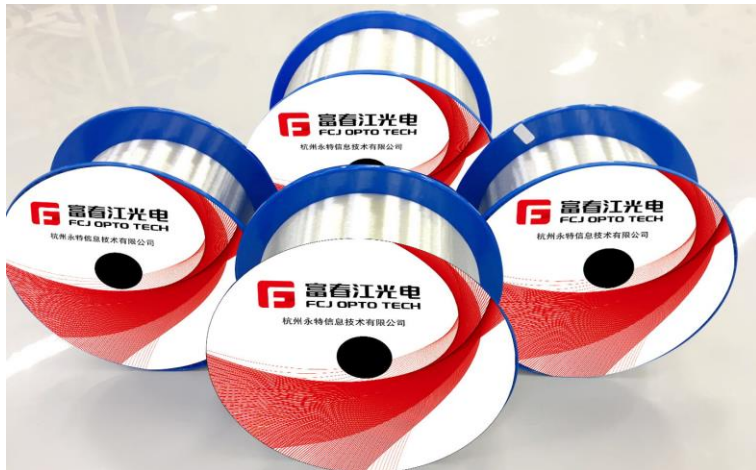
1260~1625mm full band transmission, excellent optical performance meet the transmission requirements of DWDM and CWDM systems

Application instructions

Suitable for all kinds of optical cable structure, including optical fiber cable, sheathed lay cable, skeletal cable, central tube cable and sheathed cable, etc.

Fiber Performance	Main Indicator Name	Technical Parameters
Geometric Features	Cladding diameter	125.0±0.7 um
	Cladding roundness	≤0.7%
	Coating diameter	243±7 um
	Coating/cladding concentricity error	≤10 um
	Coating roundness	≤6 %
	Core/cladding concentricity error	≤0.5 um
	Degree of warping (radius of curvature)	≥4 m

Fiber Performance	Main Indicator Name		Technical Parameters
Optical properties	MFD	1310nm	9.2±0.4 um
		1550nm	10.4±0.5 um
	Attenuation	1310nm	≤0.34 dB / km
		1383nm	≤0.34 dB / km
		1550nm	≤0.20 dB / km
		1625nm	≤0.24 dB / km
	Attenuation change	1285-1330nm, Relative to the1310nm	≤0.04 dB / km
		1525-1575nm, Relative to the1550nm	≤0.03 dB / km
	Discontinuous of decay point	1310nm	≤0.04 dB
		1550nm	≤0.04 dB
	PMD	Maximum value of a single optical fiber Fiber optic link value (M=20, Q=0.01%)	≤0.2 ps/(km ^{1/2})
		Typical values	≤0.1 ps/(km ^{1/2})
Zero dispersion wavelength		0.04 ps/(km ^{1/2})	
Dispersion	Dispersion slope	1312±12 nm	
	Dispersion	1285 ~ 1339nm	≤0.092 ps/(nm ² .km)
		1271 ~ 1360nm	≤3.4 ps/(nm.km)
	Cut-off wavelength of cable (λc)	Screen tension	≤5.3 ps/(nm.km)
		Dynamic fatigue parameter Nd	≤1260nm
	Mechanical properties	Peeling force of coating	Average
Peak			≥20
Macrobends add losses		1 circle diameter 32mm, 1550nm	1.5N
		100 circle diameter50mm, 1310nm&1550nm	1.3-8.9N
		100 circle diameter60mm, 1625nm	≤0.05 dB
Environmental performance	Temperature added attenuation (-60°Cto±85°C, Two cycles1550nm&1625nm)	≤0.05 dB	
	Temperature - humidity cycle additional attenuation (85±2°C, Relative humidity≥85%,1550nm&1625nm)	≤0.05 dB / km	
	Immersion adds attenuation (23±5°C, 30天, 1550nm&1625nm)	≤0.05 dB / km	
	Dry heat aging (85±2°C, 30天, 1550nm&1625nm)	≤0.05 dB / km	
	Wet and heat aging (85±2°C, Relative humidity85%, 30天, 1550nm&1625nm)	≤0.05 dB / km	



Product Features

1260-1625nm all-band transmission;

The water peak loss caused by hydroxide ion absorption in common single-mode fiber near 1383nm is inhibited.

The working window is extended to e-band (1360-1460 nm), which increases the spectral bandwidth about 100nm. The low loss single-mode fiber further reduces the attenuation of 1260 ~ 1625nm.

It fully meets the requirement of realizing multi-channel, high rate and ultra-long distance transmission over a single optical fiber.

Specifications

Low loss single mode fiber (LL G.652D)

Execution standard

Meet and better than ITU-T G.652.D & IEC B1.3 optical fiber technical specification requirements

Application instructions

Suitable for all kinds of optical cable structure, including optical fiber belt cable, sheath lay cable, skeletal cable, central tube optical fiber and tightly sheathed cable, etc.

Fiber Performance	Main Indicator Name		Technical Parameters
Optical properties	MFD	1310nm	9.2±0.4 μm
		1550nm	10.4±0.5 μm
	Attenuation	1310nm	≤0.32 dB / km
		1383nm	≤0.32 dB / km
		1550nm	≤0.18 dB / km
		1625nm	≤0.20 dB / km
	Attenuation change	1285-1330nm, Relative to the1310nm	≤0.03 dB / km
		1525-1575nm Relative to the1550nm	≤0.02 dB / km
	Discontinuous of decay point	1310nm	≤0.04 dB
		1550nm	≤0.04 dB
	PMD	Maximum value of a single optical fiber	≤0.1 ps/(km ^{1/2})
		Fiber optic link value (M=20, Q=0.01%)	≤0.06 ps/(km ^{1/2})
		Typical values	0.04 ps/(km ^{1/2})
	Zero dispersion wavelength		1312±12 nm
	Dispersion slope		≤0.092 ps/(nm ² .km)
	Dispersion	1285 ~ 1340nm	≥-3.4, ≤3.4 ps/(nm.km)
		1550nm	≤18 ps/(nm.km)
		1625nm	≤22 ps/(nm.km)
	Cut-off wavelength of cable (λ _c)		≤1260 nm
	Macrobends add losses	1 circle diameter 32mm 1550nm	≤0.03 dB
100 circle diameter 50mm 1310nm&1550nm		≤0.03 dB	
100 circle diameter 60mm 1625nm		≤0.03 dB	

Fiber Performance	Main Indicator Name	Technical Parameters
Geometric features	Cladding diameter	125.0±0.7 um
	Cladding roundness	≤0.7 %
	Coating diameter	243±7 um
	Coating/cladding concentricity error	≤10 um
	Coating roundness	≤6 %
	Core/cladding concentricity error	≤0.5 um
	Degree of warping (radius of curvature)	≥4 m
Mechanical properties	Screen tension	≥9.0N, ≥1.0%, ≥100Kpsi
	Dynamic fatigue parameter Nd	≥20
	Peeling force of coating	Average
Peak		1.3-8.9N
Environmental performance	Temperature added attenuation (-60°C to +85°C, Two cycles, 1310nm&1550nm&1625nm)	≤0.05 dB / km
	Temperature - humidity cycle additional attenuation (-10°C to 85°C, Relative humidity 85%, 1310nm&1550nm&1625nm)	≤0.05 dB / km
	Immersion adds attenuation (23±2°C, 30天, 1310nm&1550nm&1625nm)	≤0.05 dB / km
	Dry heat aging (85±2°C, 30天, 1310nm&1550nm&1625nm)	≤0.05 dB / km
	Wet and heat aging (85±2°C, Relative humidity85%, 30天, 1310nm&1550nm&1625nm)	≤0.05 dB / km



Product Features

Excellent bending resistance;
Fully compatible with G.652 single mode fiber, 1260 ~ 1626nm full band transmission;
Low polarization mode dispersion that meets the high rate, long distance transmission needs to use in a variety of optical cable including ribbon cable, very low micro-bending additional attenuation;
High anti-fatigue parameters ensure service life under small bending radius.

Specifications

Bending insensitive single-mode fiber (G.657.A1)

Execution standard

Meet and better than ITU-T G.652.D/ G.657.A1 optical fiber technical specification requirements.

Application instructions

Apply to various structures of optical cables, full band transmission in 1260 ~ 1626nm, FTTH high-speed optical routing, with small bending radius requirements, small size optical cables and optical fiber device, the requirements of using L band.

Fiber Performance	Main Indicator Name		Technical Parameters	
Optical properties	MFD	1310nm	8.8±0.4 um	
		1550nm	10.4±0.8 um	
	Attenuation	1310nm	≤0.35 dB / km	
		1383nm	≤0.35 dB / km	
		1550 nm	≤0.21 dB / km	
		1625 nm	≤0.24 dB / km	
	Attenuation change	1285-1330nm, Relative to the 1310nm		≤0.03 dB / km
		1525-1575nm, Relative to the 1550nm		≤0.02 dB / km
	Discontinuous of decay point	1310nm		≤0.04 dB
		1550nm		≤0.04 dB
	PMD	Maximum value of a single optical fiber		≤0.1 ps/(km ^{1/2})
		Fiber optic link value (M=20, Q=0.01%)		≤0.06 ps/(km ^{1/2})
		Typical values		0.04 ps/(km ^{1/2})
	Zero dispersion wavelength			1312±12 nm
	Dispersion slope			≤0.092 ps/(nm ² .km)
Dispersion	1550nm		≤18 ps/(nm.km)	
	1625nm		≤22 ps/(nm.km)	
Cut-off wavelength of cable (λ _c)			≤1260 nm	
Macrobends add losses	1 circle diameter 20mm 1550nm&1625nm		≤0.5 dB, ≤1.5 dB	
	10circle diameter 30mm 1550nm&1625nm		≤0.05 dB, ≤0.3 dB	
	100circle diameter 50mm 1310nm&1550nm&1625nm		≤0.01 dB	

Fiber Performance	Main Indicator Name	Technical parameters	
Geometric features	Cladding diameter	125.0±0.7 um	
	Cladding roundness	≤0.7 %	
	Coating diameter	243±7 um	
	Coating/cladding concentricity error	≤10 um	
	Coating roundness	≤6 %	
	Core/cladding concentricity error	≤0.5 um	
	Degree of warping (radius of curvature)	≥4 m	
Mechanical properties	Screen tension	≥9.0N, ≥1.0%, ≥100Kpsi	
	Dynamic fatigue parameter Nd	≥20	
	Peeling force of coating	Average	1.5 N
		Peak	1.3-8.9 N
Environmental performance	Temperature added attenuation (-60°C to +85°C, 1310nm&1550nm&1625nm)	≤0.05 dB / km	
	Temperature - humidity cycle additional attenuation (-10°C to 85°C, Relative humidity 98%, 1310nm&1550nm&1625nm)	≤0.05 dB / km	
	Immersion adds attenuation (23±2°C, 30天, 1310nm&1550nm&1625nm)	≤0.05 dB / km	
	Dry heat aging (85±2°C, 30天, 1310nm&1550nm&1625nm)	≤0.05 dB / km	
	Wet and heat aging (85±2°C, Relative humidity 85%, 30天, 1310nm&1550nm&1625nm)	≤0.05 dB / km	



Product Features

Minimum bending radius up to 7.5mm, with excellent bending resistance; Fully compatible with G.652 single-mode fiber; 1260-1626nm full-band transmission; Low polarization mode dispersion to meet the high rate, long distance transmission needs in a variety of optical cable including ribbon cable, very low micro-bending additional attenuation; High anti-fatigue parameters ensure service life under small bending radius.

Specifications

Bending insensitive Single-mode fiber (G.657.A2)

Execution standard

Meet and better than ITU-T G.657.A1/A2 fiber technical specification requirements.

Application instructions

Suitable for all kinds of optical cables, such as 1260 ~ 1626nm full-band transmission, FTTH high-speed optical routing, optical cables with small bending radius requirements, Requirements for optical cable and optical fiber devices of small size, using L band.

Fiber Performance	Main Indicator Name		Technical Parameters
Optical properties	MFD	1310nm	8.6±0.4 um
		1550nm	10.4±0.8 um
	Attenuation	1310nm	≤0.35 dB / km
		1383nm	≤0.35 dB / km
		1550nm	≤0.21 dB / km
		1625 nm	≤0.24 dB / km
	Attenuation change	1285-1330nm, Relative to the 1310nm	≤0.03 dB / km
		1525-1575nm, Relative to the 1550nm	≤0.02 dB / km
	Discontinuous of decay point	1310nm	≤0.04 dB
		1550nm	≤0.04 dB
	PMD	Maximum value of a single optical fiber	≤0.1 ps/(km ^{1/2})
		Fiber optic link value (M=20, Q=0.01%)	≤0.06 ps/(km ^{1/2})
		Typical values	0.04 ps/(km ^{1/2})
	Zero dispersion wavelength		1312±12 nm
	Dispersion slope		≤0.092 ps/(nm ² .km)
Dispersion	1550nm	≤18 ps/(nm.km)	
	1625nm	≤22 ps/(nm.km)	
Cut-off wavelength of cable (λ _c)		≤1260 nm	
Macrobends add losses	1 circle diameter 15mm 1550nm&1625nm	≤0.5 dB, ≤1 dB	
	1circle diameter 20mm 1550nm&1625nm	≤0.1 dB, ≤0.2 dB	
	10circle diameter 30mm 1550nm&1625nm	≤0.03 dB, ≤0.1 dB	

Fiber Performance	Main Indicator Name		Technical Parameters
Geometric features	Cladding diameter		125.0±0.7 um
	Cladding roundness		≤10.7%
	Coating diameter		243±7 um
	Coating/Cladding concentricity error		≤10 um
	Coating roundness		≤6 %
	Core/Cladding concentricity error		≤0.5 um
	Degree of warping (radius of curvature)		≥4 m
Mechanical properties	Screen tension		≥9.0N, ≥1.0%, ≥100Kpsi
	Dynamic fatigue parameter Nd		≥20
	Peeling force of coating	Average	1.7 N
Peak		1.3-8.9 N	
Environmental performance	Temperature added attenuation (-60°C to +85°C, 1550nm&1625nm)		≤0.05 dB / km
	Temperature - humidity cycle additional attenuation (-10°C to 85°C, Relative humidity 85%,1550nm&1625nm)		≤0.05 dB / km
	Immersion adds attenuation (23±2°C, 30天, 1550nm&1625nm)		≤0.05 dB / km
	Dry heat aging (85±2°C, 30天, 1550nm&1625nm)		≤0.05 dB / km
	Wet and heat aging (85±2°C, Relative humidity 85%, Thirty days, 1550nm&1625nm)		≤0.05 dB / km



Product Description

The structure of the GYDTA cables insert 4, 6, 8, and 12 fiber cores into a loose tube which made of a high modulus material. The tubes are filled with a water blocking compound. The center of core is a central strength member, a layer of polyethylene (PE) is added to central strength member for certain types of cables. The loose tube and filler are stranded to a compact and circular cabl around the central strength member, and the cable core are filled with water-blocking fillers. APL extruded cable after longitudinal lapping.

GYDTA

Product Features

- The loose tube is filled with special ointment to provide critical protection to the optical fiber.;
- Full section water-blocking structure, double-sided covered aluminum tape longitudinal package, ensure the function of good water-blocking and moist-proof;
- The modulus of phosphating steel wire center strehghth member is high and corrosion-resistant;
- PE sheath has good uv radiation resistance and environmental stress cracking resistance;
- High fiber density, easy construction, easy identification, easy maintenance, low project cost;
- It has a wide application prospect in the access network (especially cable to the roadside, cable to the building, etc.), relaying, CATV network and so on;
- The service life of the product is more than 25 years;
- Operating temperature: -40 ~ +70°C

Product Standards

1. GYDTA optical cable conforms to YD/T981.3-2009 standard
2. Application range: suitable for long-distance communication and inter-office communication
3. Application: pipeline, overhead

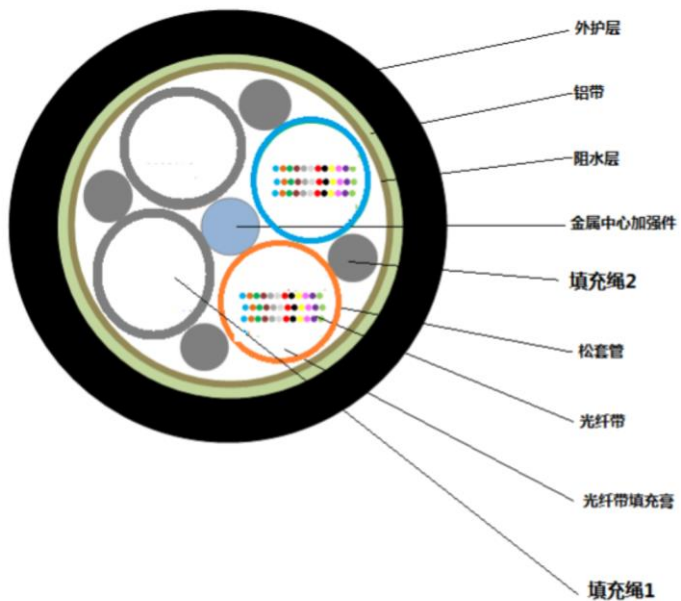
GYDTA Cable technical parameter table

光缆型号Cable Type	光纤数 Fiber Count	光纤带数X每带芯 数 Ribbon layers X Ribbon Fiber	套管数Tubes	填充绳数Fillers	参考光缆外径 Refer to the external diameter of the cable	参考光缆重量 Cable Weight kg/km (Ref)	允许拉伸力 Tensile Strength 长期/短期 Long/Short Term(N)	允许压扁力Crush Resistance 长期/ 短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态 /动态 Static/Dynamic(mm)
GYDTA-72B1.3	72	3*12	2	2+4	17.0	250	≥600/ ≥1500	≥300/ ≥1000	10D/20D
GYDTA-96B1.3	96	4*12	2	2+4	17.0	250			
GYDTA-120B1.3	120	5*12	2	2+4	18.0	280			
GYDTA-144B1.3	144	6*12	2	2+4	18.0	280			
GYDTA-216B1.3	192	6*12	3	1+4	18.0	280			
GYDTA-288B1.3	288	6*12	4	0+4	18.0	280			

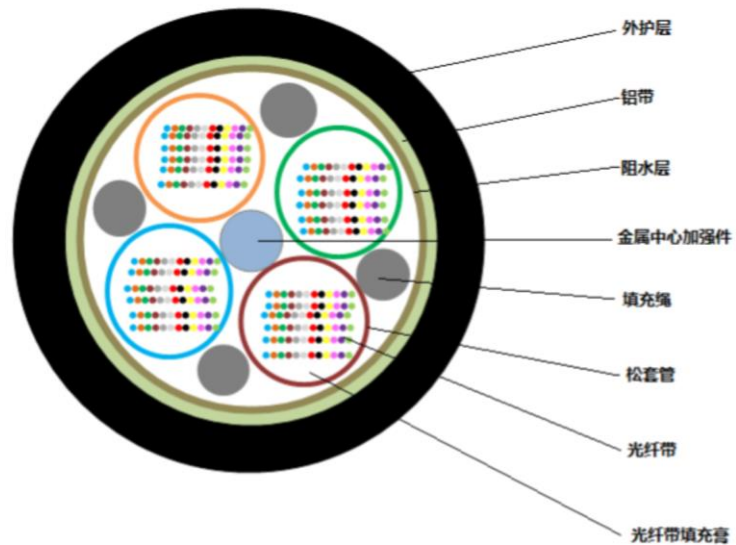
Note: G.652D optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.

Structure Diagram

▼GYDTA 288B1.3



▲GYDTA 72B1.3





Product Description

The structure of the GYDTS cables insert 4, 6, 8, and 12 fiber cores into a loose tube which made of a high modulus material. The tubes are filled with a water blocking compound. The center of core is a central strength member, a layer of polyethylene (PE) is added to central strength member for certain types of cables. The loose tube and filler are stranded to a compact and circular cable around the central strength member, and the cable core are filled with water-blocking fillers. PSP extruded cable after longitudinal lapping.

GYDTS

Product Features

- The loose tube is filled with special ointment for critical protection of the optical fiber ;
- Full section water-blocking structure, double-sided covered aluminum tape longitudinal package, ensure the function of good water-blocking and moist-proof;
- The modulus of phosphating steel wire center strength member is high and corrosion-resistant;
- PE sheath has good uv radiation resistance and environmental stress cracking resistance ;
- High fiber density, easy construction, easy identification, easy maintenance and low engineering cost ;
- It has a wide application prospect in the access network (especially cable to the roadside, cable to the building, etc.), relaying, CATV network and so on ;
- The service life of the product is more than 25 years ;
- Operating temperature: -40 ~ +70°C

Product Standards

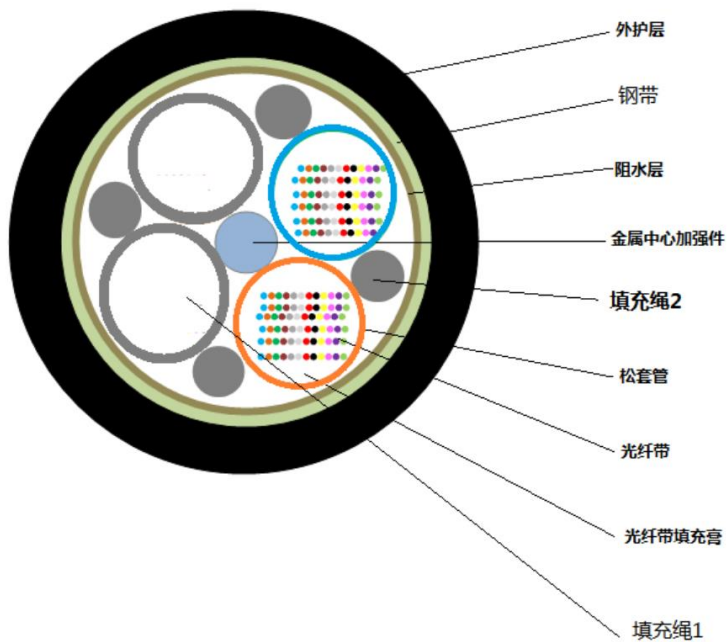
1. GYDTS optical cable conforms to YD/T981.3-2009 standard
2. Application range: suitable for long-distance communication and inter-office communication
3. Application: pipeline, overhead

GYDTS Cable technical parameter table

光缆型号Cable Type	光纤数Fiber Count	光纤带数X每带芯数 Ribbon layers X Ribbon Fiber	套管数Tubes	填充绳数Fillers	参考光缆外径 Refer to the external diameter of the cable	参考光缆重量 Cable Weight kg/km (Ref)	允许拉伸力 Tensile Strength 长期/短期 Long/Short Term(N)	允许压扁力Crush Resistance 长期/ 短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态 /动态 Static/Dynamic(mm)
GYDTS-72B1.3	72	3*12	2	2+4	17.0	250	≥600/ ≥1500	≥300/ ≥1000	10D/20D
GYDTS-96B1.3	96	4*12	2	2+4	17.0	250			
GYDTS-120B1.3	120	5*12	2	2+4	18.0	280			
GYDTS-144B1.3	144	6*12	2	2+4	18.0	280			
GYDTS-216B1.3	192	6*12	3	1+4	18.0	280			
GYDTS-288B1.3	288	6*12	4	0+4	18.0	280			

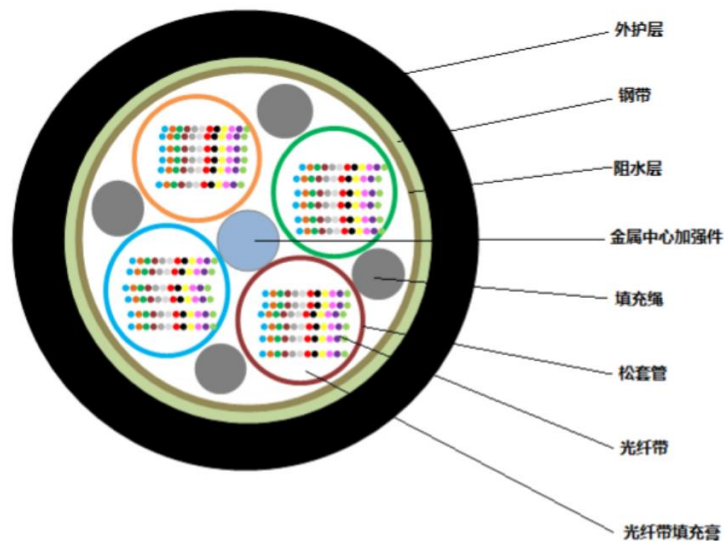
Note: G.652D optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.

Structure Diagram



▲ GYDTS 144B1.3

▼ GYDTS 288B1.3





Product Description

The structure of the GYTA53 cables insert 250 μ m fiber into a loose tube which made of a high modulus material. The tubes are filled with a water blocking compound. The center of core is a central strength member, a layer of polyethylene (PE) is added to central strength member for certain types of cables. The loose tube and filler are stranded to a compact and circular cable around the central strength member, and the cable core are filled with water-blocking fillers. PSP extruded cable after longitudinal lapping. After APL longitudinally coated with PE outer sheath and then extruded to form the PE sheath cable after PSP longitudinally.

GYTA53

Product Features

- The loose tube is filled with special ointment to provide critical protection to the optical fiber;
- Full section water-blocking structure, longitudinal double-sided coated with armored and corrugated steel (aluminum) band, lap edge bonding is reliable, high strength, torsion without cracking, double protective and armored structure, excellent flattening resistance, ensure the function of good water-blocking and moist-proof; Also has anti-rat ability.
- The modulus of phosphating steel wire center strength member is high and corrosion-resistant;
- PE sheath has good uv radiation resistance and environmental stress cracking resistance;
- The service life of the product is more than 25 years;
- Operating temperature: -40 ~ +70°C

Product Standards

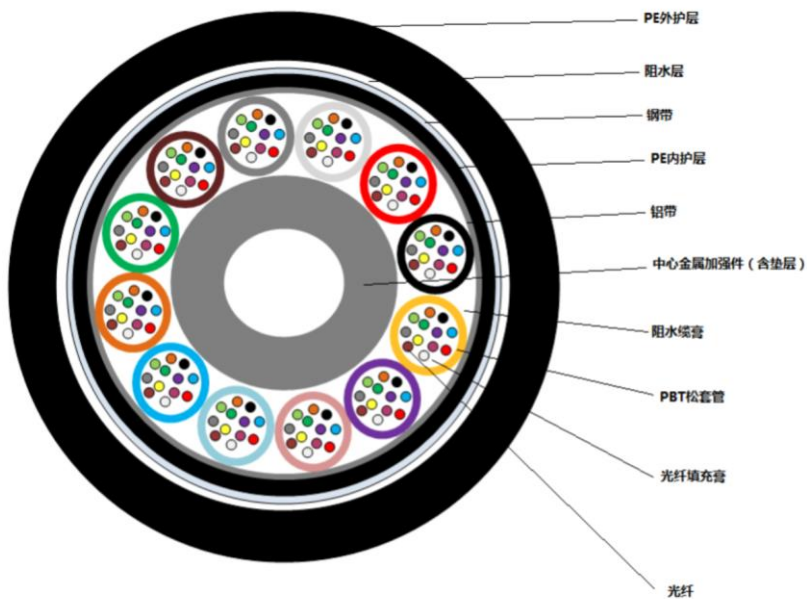
1. GYTA53 optical cable conforms to YD/T 901-2018 standard
2. Application range: suitable for long-distance communication and inter-office communication
3. Application: direct burial

GYTA53 Cable technical parameter table

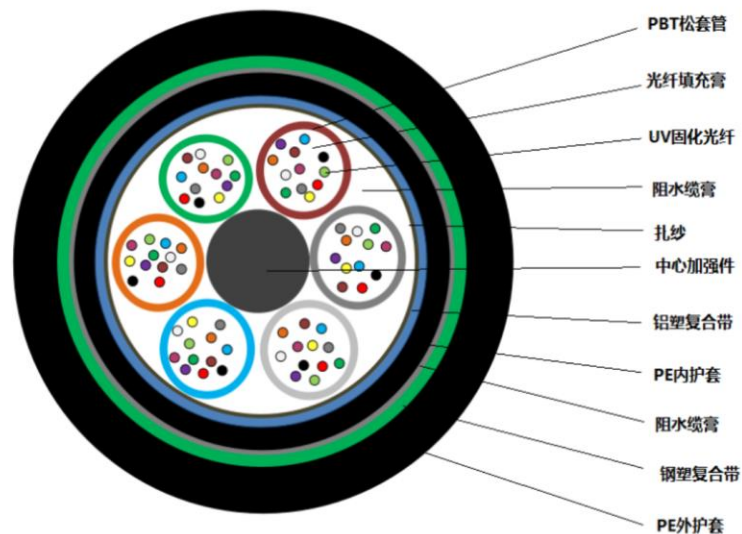
光缆型号Cable Type	光纤数Fiber Count	套管数Tubes	填充绳数Fillers	参考光缆外径 Refer to the external diameter of the cable	参考光缆重量 Cable Weight kg/km (Ref)	允许拉伸力Tensile Strength 长期/短期 Long/Short Term(N)	允许压扁力Crush Resistance 长期/短期 Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态/动态 Static/Dynamic(mm)
GYTA53-2~6B1.3	2~6	1	5	13.8	190	≥1000/ ≥3000	≥1000/ ≥3000	12.5D/25D
GYTA53-8~12B1.3	8~12	2	4	13.8	190			
GYTA53-14~18B1.3	14~18	3	3	13.8	190			
GYTA53-20~24B1.3	20~24	4	2	13.8	190			
GYTA53-26~30B1.3	26~30	5	1	13.8	190			
GYTA53-32~36B1.3	32~36	6	0	13.8	190			
GYTA53-38~48B1.3	38~48	4	1	14.1	193			
GYTA53-50~60B1.3	50~60	5	0	14.1	193			
GYTA53-62~72B1.3	62~72	6	0	14.4	204			
GYTA53-74~96B1.3	74~96	7~8	1~0	15.4	230			
GYTA53-98~120B1.3	98~120	9~10	1~0	16.7	263			
GYTA53-122~144B1.3	122~144	11~12	1~0	17.8	305			
GYTA53-146~216B1.3	146~216	13~18	5~0	18.3	312			
GYTA53-218~288B1.3	218~288	19~24	5~0	20.1	365			

Note: G.652D optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.

Structure Diagram



▼ GYTA53 72B1.3





Product Description

The structure of the GYTA cable insert 250μm fiber into a loose tube which made of a high modulus material. The tubes are filled with a water blocking compound. The center of core is a central strength member, a layer of polyethylene (PE) is added to central strength member for certain types of cables. The loose tube and filler are stranded to a compact and circular cable around the central strength member, and the cable core are filled with water-blocking fillers. APL extruded cable after longitudinal lapping.

GYTA

Product Features

- The loose tube is filled with special ointment for critical protection of the optical fiber;
- Full section water-blocking structure, double-sided covered aluminum tape longitudinal package, ensure the function of good water-blocking and moist-proof;
- The modulus of phosphating steel wire center strength member is high and corrosion-resistant;
- PE sheath has good uv radiation resistance and environmental stress cracking resistance ;
- The service life of the product is more than 25 years;
- Operating temperature: -40 ~ +70°C

Product Standards

1. GYTA cable conforms to YD/T 901-2018 standard
2. Application: suitable for long distance communication and inter-office communication
3. Application: pipeline, overhead

GYTA Cable technical parameter table

光缆型号Cable Type	光纤数Fiber Count	套管数Tubes	填充绳数Fillers	参考光缆外径Refer to the external diameter of the cable	参考光缆重量Cable Weight kg/km (Ref)	允许拉伸力Tensile Strength 长期/短期Long/Short Term(N)	允许压扁力Crush Resistance 长期/短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态/动态 Static/Dynamic(m)
GYTA-2~6	2~6	1	4	9.4	80	≥600/ ≥1500	≥300/ ≥1000	10D/20D
GYTA-8~12	8~12	2	3	9.4	80			
GYTA-14~18	14~18	3	2	9.4	80			
GYTA-20~24	20~24	4	1	9.4	80			
GYTA-26~30	26~30	5	0	9.4	80			
GYTA-32~36	32~36	6	0	10	98			
GYTA-38~48	38~48	4	1	10.4	101			
GYTA-50~60	50~60	5	0	10.4	101			
GYTA-62~72	62~72	6	0	10.6	109			
GYTA-74~96	74~96	7~8	1~0	11.8	133			
GYTA-98~120	98~120	9~10	1~0	13.3	145			
GYTA-122~144	122~144	11~12	1~0	14.4	182			
GYTA-146~216	146~216	13~18	5~0	14.7	190			
GYTA-218~288	218~288	19~24	5~0	16.5	233			

Note: G.652D optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.



Product Description

The structure of the GYTS cable insert 250 μ m fiber into a loose tube which made of a high modulus material. The tubes are filled with a water blocking compound. The center of core is a central strength member, a layer of polyethylene (PE) is added to central strength member for certain types of cables. The loose tube and filler are stranded to a compact and circular cable around the central strength member, and the cable core are filled with water-blocking fillers. APL extruded cable after longitudinal lapping. PSP extruded cable after longitudinal lapping.

GYTS

Product Features

- 1、 The loose tube is filled with special ointment for critical protection of the optical fiber ;
- 2、 Full section water-blocking structure, double-sided covered aluminum tape longitudinal package, ensure the function of good water-blocking and moist-proof, high side pressure performance ;
- 3、 The modulus of phosphating steel wire center strength member is high and corrosion-resistant;
- 4、 PE sheath has good uv radiation resistance and environmental stress cracking resistance ;
- 5、 The service life of the product is more than 25 years;
- 6、 Operating temperature: -40 ~ +70°C

Product Standards

1. GYTS optical cable conforms to YD/T 901-2018 standard
2. Application range: suitable for long-distance communication and inter-office communication
3. Application: pipeline, overhead

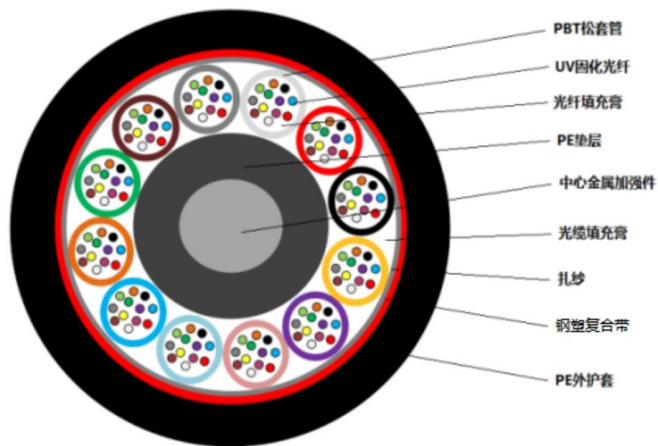
GYTS Cable technical parameter table

光缆型号Cable Type	光纤数Fiber Count	套管数Tubes	填充绳数Fillers	参考光缆外径Refer to the external diameter of the cable	参考光缆重量Cable Weight kg/km (Ref)	允许拉伸力Tensile Strength 长期/短期Long/Short Term(N)	允许压扁力Crush Resistance 长期/短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态/动态Static/Dynamic(m)
GYTS-2~6B1.3	2~6	1	4	9.4	95	≥600/ ≥1500	≥300/ ≥1000	10D/20D
GYTS-8~12B1.3	8~12	2	3	9.4	95			
GYTS-14~18B1.3	14~18	3	2	9.4	95			
GYTS-20~24B1.3	20~24	4	1	9.4	95			
GYTS-26~30B1.3	26~30	5	0	9.4	95			
GYTS-32~36B1.3	32~36	6	0	10	113			
GYTS-38~48B1.3	38~48	4	1	10.4	115			
GYTS-50~60B1.3	50~60	5	0	10.4	115			
GYTS-62~72B1.3	62~72	6	0	10.6	125			
GYTS-74~96B1.3	74~96	7~8	1~0	11.8	133			
GYTS-98~120B1.3	98~120	9~10	1~0	13.1	175			
GYTS-122~144B1.3	122~144	11~12	1~0	14.2	205			
GYTS-146~216B1.3	146~216	13~18	5~0	14.7	215			
GYTS-218~288B1.3	218~288	19~24	5~0	16.5	263			

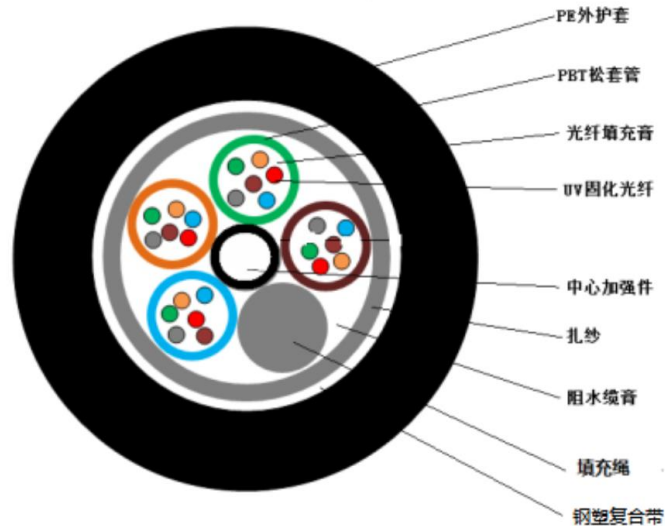
Note: G.652D optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.

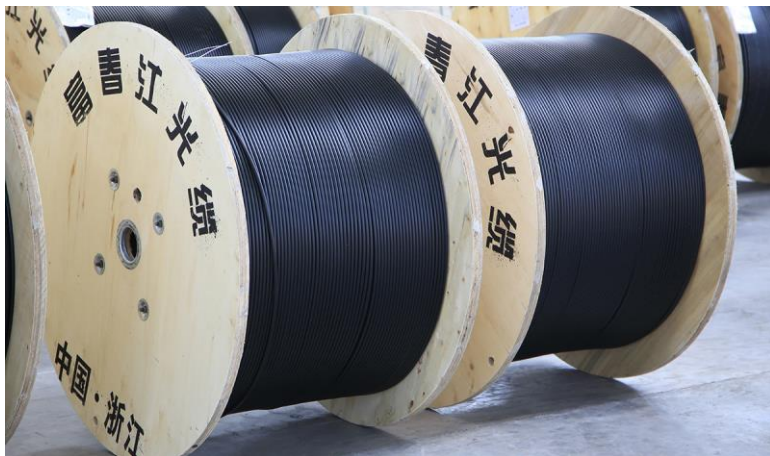
Structure Diagram

▼GYTS 24B1.3



▲GYTS 144B1.3





Product Description

The structure of the GYXTZW cable insert 250 μ m fiber into a loose tube which made of a high modulus material. The tubes are filled with a water blocking compound. The outside of loose tube is longitudinally covered with a two-sided coated PSP. Water-blocking material is added between the steel belt and the loose tube to ensure the compact and longitudinal water-blocking of the cable. Two parallel steel wires are placed on both sides and then extruded into flame retardant sheath to form the cable.

GYXTZW

Product Features

- The loose tube is filled with special ointment for critical protection of the optical fiber;
- Full section water-blocking structure, double-sided covered aluminum tape longitudinal package, ensure the function of good water-blocking and moist-proof;
- Two parallel round steel wires can resist tension and have lateral pressure;
- Loose tube is located in the physical center of optical cable, convenient construction and operation;
- Flame retardant polyolefin sheath has good flame retardant performance
- The cable has small outer diameter, light weight and excellent bending performance
- The service life of the product is more than 25 years;
- Operating temperature: -40 ~ +70°C

Product Standards

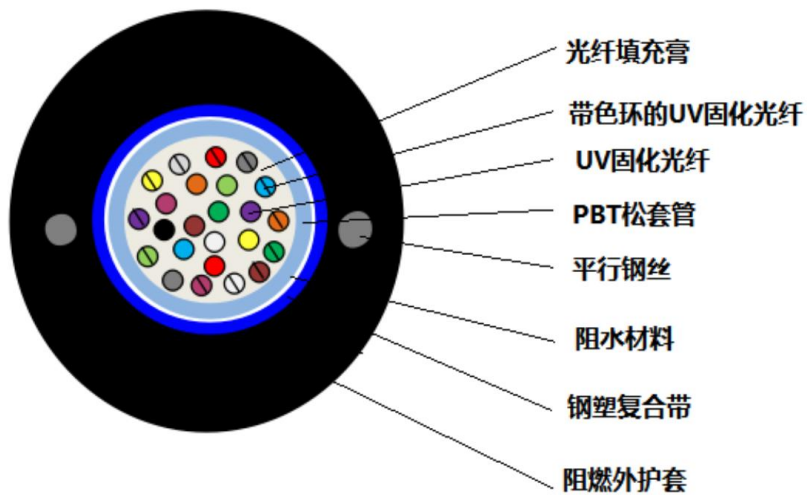
1. GYXTZW cable conforms to YD/T769-2018 standard
2. Application range: suitable for long-distance communication and inter-office communication
3. Application: pipeline, overhead, direct burial

GYXTZW Cable technical parameter table

光缆型号Cable Type	光纤数Fiber Count	套管数Tubes	参考光缆外径 Refer to the external diameter of the cable	参考光缆重量 Cable Weight kg/km (Ref)	允许拉伸力 Tensile Strength 长期/短期 Long/Short Term(N)	允许压扁力Crush Resistance 长期/短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态 /动态 Static/Dynamic(mm)
GYXTZW-2~12B1.3	2~12	1	8.1	95	≥600/ ≥1500	≥300/ ≥1000	10D/20D
GYXTZW-14~24B1.3	14~12	1	9.0	108			

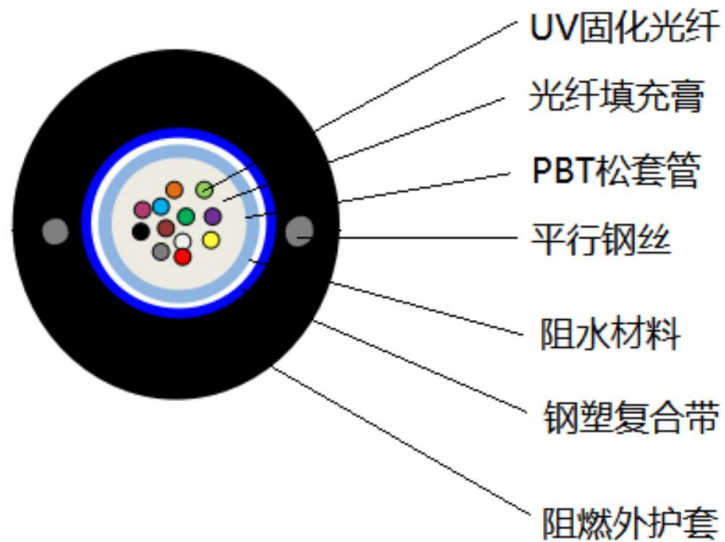
Note: G.652D optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.

Structure Diagram



▲ GYXTZW 24B1.3

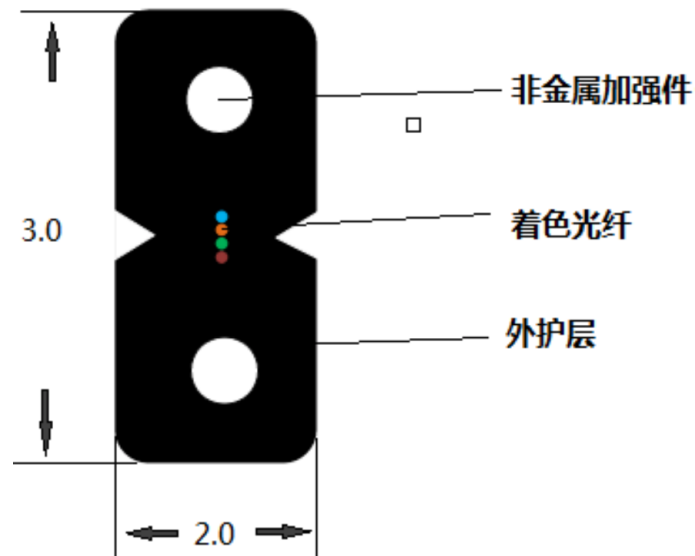
▼ GYXTZW 12B1.3



◆GJXFH

Product Features

- Using bending-insensitive optical fiber, excellent bending resistance;
- The optical cable is easy to strip, fix, convenient connection, simplify installation and maintenance;
- The cable has small outer diameter, light weight, low cost and low construction cost;
- Using cold connection technology, fast speed, flexible and quick ;
- Optical cable has high flattening and tension resistance;
- All medium material. It has the function of lightning protection, electronic interference protection;
- Adopt low smoke halogen-free flame retardant material to meet the requirements of flame retardant performance of optical cable indoors;
- The service life of the product is more than 15 years;
- Operating temperature: -5 ~ +50°C.



Product Description

The structure of GJXFH optical cable is that the single-mode optical fiber is in the center, and two parallel non-metallic strengthening elements are placed on both sides. Finally, the cable is made of black low-smoke halogen-free flame retardant polyolefin sheath .

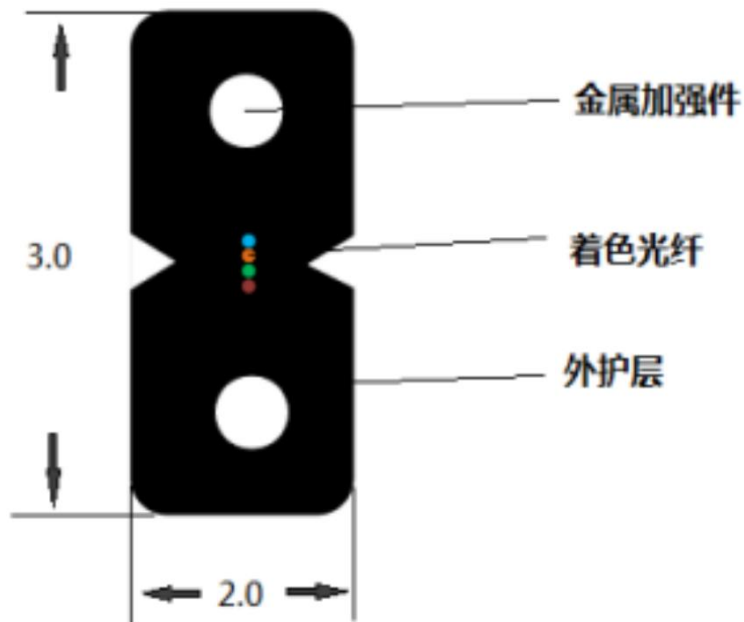
Product Standards

- 1, GJXFH cable conforms to YD/T 1997.1-2014 standard
- 2, Application: indoor wiring
- 3, Application: field termination

GJXFH Cable technical parameter table

光缆型号Cable Type	光纤数Fiber Count	参考光缆外径Refer to the external diameter of the cable	参考光缆重量Cable Weight kg/km (Ref)	允许拉伸力Tensile Strength 长期/短期Long/Short Term(N)	允许压扁力Crush Resistance 长期/短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态/动态Static/Dynamic(m)
GJXFH-1~4B6a2	1~4	2.0*3.0	9.5	40/80	500/1000	20D/40D

Note: G. 657A2 optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.



◆GJXH

Product Features

- Using bending-insensitive optical fiber, excellent bending resistance;
- The optical cable is easy to strip, fix, convenient connection, simplify installation and maintenance;
- The cable has small outer diameter, light weight, low cost and low construction cost;
- Using cold connection technology, fast speed, flexible and quick;
- Optical cable has high flattening and tension resistance;
- Adopt low smoke halogen-free flame retardant material to meet the requirements of flame retardant performance of optical cable indoors;
- The service life of the product is more than 15 years;
- Operating temperature: -5 ~ +50°C.

Product Description

The structure of GJXH optical cable is that the single-mode optical fiber is in the center, and two parallel metal reinforcement elements are placed on both sides. Finally, the cable is formed by black low-smoke halogen-free flame retardant polyolefin sheath.

Product Standards

1. GJXH cable comply with YD/T 1997.1-2014 standard
2. Application: indoor wiring
3. Application: field termination

GJXH Cable technical parameter table

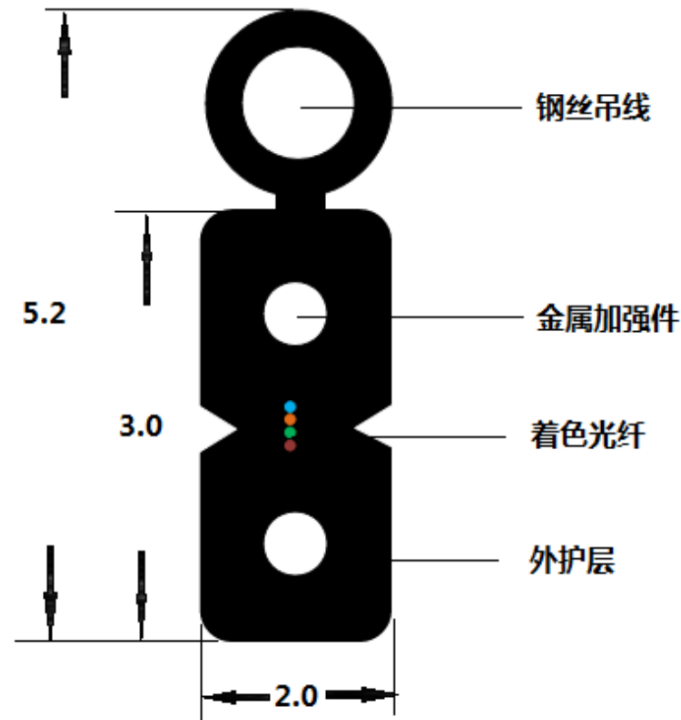
光缆型号Cable Type	光纤数Fiber Count	参考光缆外径 Refer to the external diameter of the cable	参考光缆重量Cable Weight kg/km (Ref)	允许拉伸力Tensile Strength 长期/短期Long/Short Term(N)	允许压扁力Crush Resistance 长期/短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态/动态Static/Dynamic(m)
GJXH-1~4B6a2	1~4	2.0*3.0	10	100/200	1000/2200	20D/40D

Note: G. 657A2 optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.

◆ GJYXCH

Product Features

- Using bending-insensitive optical fiber, excellent bending resistance;
- The optical cable is easy to strip, fix, convenient connection, simplify installation and maintenance ;
- The cable has small outer diameter, light weight, low cost and low construction cost ;
- Using cold connection technology, fast speed, flexible and quick ;
- Fiber optic cable has high flattening resistance and tension resistance, high carbon steel wire has superior tensile performance, can meet 50 meters below the flying span pull ;
- Adopt low smoke halogen-free flame retardant material to meet the requirements of flame retardant performance of optical cable indoors;
- The service life of the product is more than 15 years ;
- Operating temperature: -5 ~ +50°C .



Product Description

The structure of GJYXCH optical cable is that the single-mode optical fiber is in the center, two parallel metal reinforcement elements are placed on both sides, and a steel wire reinforcement element is attached on the outside. Finally, the cable is made of black low-smoke halogen-free flame retardant polyolefin sheath.

Product Standards

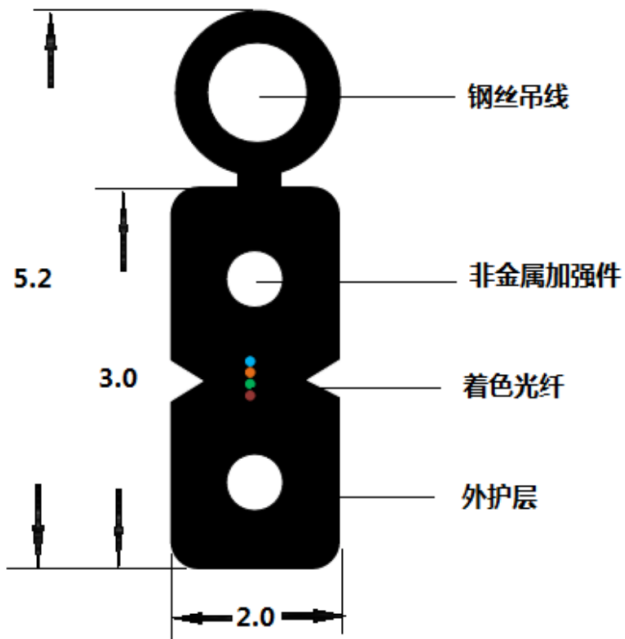
1. GJYXCH optical cable conforms to YD/T 1997.1-2014 standard
2. Application scope: overhead introduction
3. Application: field termination

GJYXCH Cable technical parameter table

光缆型号Cable Type	光纤数Fiber Count	参考光缆外径Refer to the external diameter of the cable	参考光缆重量Cable Weight kg/km (Ref)	允许拉伸力Tensile Strength 长期/短期Long/Short Term(N)	允许压扁力Crush Resistance 长期/短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态/动态Static/Dynamic(m)
GJYXCH-1~4B6a2	1~4	2.0*5.2	24	300/600	1000/2200	20D/40D

Note: G. 657A2 optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.

◆ GJYXFCH



Product features

- Using bending-insensitive optical fiber, excellent bending resistance.;
- The optical cable is easy to strip, fix, convenient connection, simplify installation and maintenance;
- Optical cable small diameter, light weight, low cost, low construction cost;
- Using cold connection technology, fast speed, flexible and fast;
- Fiber cable using Arlene fiber and other non-metallic stiffeners than metal stiffeners have higher flattening resistance and tension resistance than GJYXCH's tensile performance;
- Optical cable all medium material. It has the function of lightning protection and anti-electronic interference function;
- Adopt low smoke halogen-free flame retardant material to meet the requirements of flame retardant performance of optical cable indoors;
- The service life of the product is more than 15 years;
- Operating temperature: -5 ~ +50°C.

Product Description

The structure of GJYXFCH optical cable is that the single-mode optical fiber is in the center, two parallel non-metallic strengthening elements are placed on both sides, and a steel wire strengthening element is attached on the outside. Finally, the cable is made of black low-smoke halogen-free flame retardant polyolefin sheath.

Product Standards

1. GJYXFCH optical cable conforms to YD/T 1997.1-2014 standard
2. Application scope: overhead introduction
3. Application: field termination

GJTXFCH cable technical parameters table

光缆型号Cable Type	光纤数Fiber Count	参考光缆外径 Refer to the external diameter of the cable	参考光缆重量Cable Weight kg/km (Ref)	允许拉伸力Tensile Strength 长期/短期Long/Short Term(N)	允许压扁力Crush Resistance 长期/短期Long/Short Term(N/100mm)	弯曲半径Bending Radius 静态/动态 Static/Dynamic(m)
GJYXFCH-1~4B6a2	1~4	2.0*5.2	22	300/600	1000/2200	20D/40D

Note: G. 657A2 optical fiber is shown in the table. The optical fiber model can also be specified according to customer requirements.



Product Description

Optical fiber connector is a plug-out connector based on a single-core plug and adapter.

According to the joint, it can be divided into FC, SC, LC, ST, MU, etc .

According to the end face, it can be divided into PC, UPC, APC,etc.

Applicable to optical transceivers, routers, switches, and optical transceivers with optical ports.

Fiber optic connectors are widely used and play an important role in fiber optic links.

◆ optical fiber connector

Main Technical Indicators

Model	Single Mode			Multimode
	PC	UPC	APC	---
Insertion loss	≤0.3dB	≤0.3dB	≤0.3dB	≤0.3dB
Test with any plug and adapter	≤0.5	≤0.5	≤0.5	≤0.5
Return loss	≥45dB	≥50dB	≥60dB	---
Repetitive	≤0.3dB	≤0.3dB	≤0.3dB	≤0.3dB
Operating and storage Temperature	-20°C~+70°C			
Relative humidity	≤95% (+30°C时)			

Insertion loss and return loss change after various tests (Unit: dB)

Number	Name of test	Change in insertion loss	Change in return loss
a	Low temperature	≤0.2	<5
b	High temperature	≤0.2	<5
c	Humid heat (steady state)	≤0.2	<5
d	Vibration	≤0.1	<5
e	Fall	≤0.1	<5
f	Temperature cycle	≤0.2	<5
g	Repetitive	≤0.1	<5
h	Mechanical durability	≤0.2	<5
i	Strength of locking Mechanism	≤0.2	<5
j	Optical fiber tensile	≤0.1	<5
k	Optical fiber twist	≤0.1	<5

Product Description

PLC Splitter is a kind of integrated waveguide optical power distribution device based on quartz substrate. It has the characteristics of small volume, wide working wavelength range, high reliability and good optical uniformity, especially suitable for passive optical network (EPON, BPON, GPON, etc.) to connect the local end and terminal devices and achieve optical signal shunt.

FCJ optoelectronics can provide $1 \times N$ and $2 \times N$ full range of products, and customized optical splitters for various applications.



◆ PLC Splitter

Optical performance requirements for 1xN uniform optical splitter (Unit: dB)

Specifications		1x2	1x4	1x8	1x16	1x32	1x64
Optical fiber type		G.657.A					
Working wavelength		1260nm~1650nm					
Maximum insertion loss(dB)		≤4.1	≤7.4	≤10.5	≤13.8	≤17.1	≤20.4
Channel uniformity (dB)	Fixed operating wavelength	≤0.8	≤0.8	≤0.8	≤1.0	≤1.5	≤2.0
	Full operating bandwidth	≤1.1	≤1.1	≤1.1	≤1.3	≤1.8	≤2.3
Return loss(dB) (Output cutoff)		≥50	≥50	≥50	≥50	≥50	≥50
Directional(dB)		≥55	≥55	≥55	≥55	≥55	≥55

The insertion loss of optical splitter without plug shall be reduced by no less than 0.2dB on the basis of the above requirements, and other indicators shall be the same.

The maximum insertion loss in the wavelength range of 1260~1300 and 1600~1650nm is increased by 0.3dB.

Optical performance requirements for 2xN uniform optical splitter (Unit: dB)

Specifications		2x2	2x4	2x8	2x16	2x32	2x64
Optical fiber type		G.657.A					
Working wavelength		1260nm~1650nm					
Maximum insertion loss(dB)		≤4.4	≤7.7	≤10.8	≤14.1	≤17.4	≤20.7
Channel uniformity (dB)	Fixed operating wavelength	≤0.8	≤1.0	≤1.0	≤1.5	≤2.0	≤2.5
	Full operating bandwidth	≤1.1	≤1.3	≤1.3	≤1.8	≤2.3	≤2.8
Return loss(dB) (Output cutoff)		≥50	≥50	≥50	≥50	≥50	≥50
Directional(dB)		≥55	≥55	≥55	≥55	≥55	≥55

The insertion loss of optical splitter without plug shall be reduced by no less than 0.2dB on the basis of the above requirements, and other indicators shall be the same.

The maximum insertion loss in the wavelength range of 1260~1300 and 1600~1650nm is increased by 0.3dB.



Market and Customer Groups

The company's products are widely used in China Mobile, China Telecom, China Unicom, national radio and television, national power, national defense engineering and railway, subway, highway, airport, oil field and other key projects. It is also applied to China Telecom, Unicom, Mobile in Shanghai, Zhejiang, Jiangsu, Anhui and other Yangtze River Delta and Guangdong Mobile, Unicom marke in Pearl River Delta; We are engaged in the supply of fiber optic cables for Chengdu-Guiyang Railway and Hohhot subway line, and exported to Europe, America, Africa and Asia and other countries and regions, and our products are well received by users at home and abroad.

HANGZHOU FCJ OPTO TECHNOLOGY CO.,LTD.



Thanks for watching!

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