

# Networks in Rural Areas Optical Fiber Cable

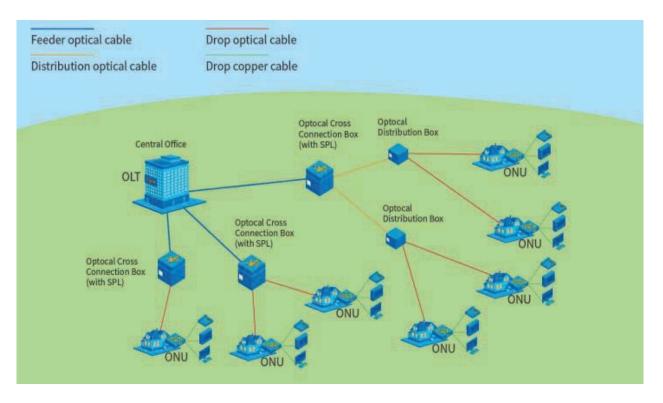
Specializing in designing, manufacturing cables and providing customized services for our customers



### **Optical Fiber Cable for Networks in Rural Areas(Vast Countryside)**

### Introduction:

FTTH networks are divided into urban FTTH networks and non-urban FTTH networks. The optical network in rural areas, which is a non-urban network, is also consisted of the feeder segment, the distribution segment, and the drop segment. The central office is connected to the optical distribution point via feeder cables, then connected to the access point via distribution cables, and finally to the home via drop cables. Compared to the urban FTTH networks, the construction of networks in rural areas is distinctive in cabling due to the environmental differences. At first, the villages with large areas are irregularly scattered and the number of subscribers is small. Secondly, it is difficult to deploy cable in rural areas which are often hilly regions, where cabling in a straight line is not possible. Furthermore, in the lightning-prone and rainy areas of the hilly regions, resistance to electromagnetic interference is required for optical cables. Therefore. the following aspects should be taken into consideration in the construction of optical networks in rural areas:



Low cost: The construction costs of networks should be as low as possible since the return on investment(ROI) in rural areas is low

Interregional differences: Conditions like temperature, humidity, and rodent control differ violently among regions, which have influences on products and construction

Utilization of existing resources: Existing resources in rural areas, such as poles, lines and ducts, should be used as much as possible Simple construction: Construction in rural areas should be as simple as possible since the operators and constructors are less skillful

### Product Series:

1	Feeder segment	GYTA/GYTS	Stranded Loose Tube
		GYAXZY	Uni-tube Aramid LSZH Sheath
		GYGXZY	Uni-tube Glass Yarn PE Sheath
0	Distribution segment	GTJGA	Slotted TBF APL CSM
2		GYFXBY	Flat-shape & Self-supporting Uni-tube
		GYAXTC8Y	Figure-8 Self-supporting Uni-tube Aramid
		GYFC8A-3U	3-Unit FRP APL Figure-8 Self-supporting
3	Drop segment	GJXH	Bow-type drop cable





### GYAXZY Uni-tube Non-metallic Aramid Armored LSZH Fire Resistant Sheath Fiber Optic Cable for Networks in Rural Areas Vast Countryside

#### Introduction:

Optical fibres are housed in a loose tube that is made of high-modulus plastic and filled with tube fulling compound. The tube is armored with a layer of aramid yarns as the strength member. Then a LSZH sheath is extruded. In the distribution segment of optical cable networks in rural areas, the cable can be used as drop cables for self-supporting aerial installation to connect branching points with access points for subscribers.

#### Features:

Good mechanical and temperature performances All-dielectric design, applicable to lightning-prone areas Aramid yarns ensuring tensile strength of optical cable Small size and light weight, easy for installation Different tensile strength can be designed on request for short-distance self-supporting aerial and duct installations

### Cross Section:



1, Fibers 2, Tube Filling Compound 3, Loose Tube 4, Aramid Yarns 5, LSZH sheath

### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Bending Radius Dynamic/static
GYAXZY-02-12Xn	6.0(3.0optical unit)	42	600/1500	300/1000	20D/10D

Note: This specification provides a normative reference. Adjustable outer diameter to suit your budget.Contact us ASAP.

### Environmental Characteristics:

Transport/storage temperature: -40  $^\circ C$  ~70  $^\circ C$ 

### Delivery Length:





### GYGXY Uni-tube Non-metallic Glass Yarns Tapes Armored HDPE Sheath Fiber Optic Cable for Networks in Rural Areas Vast Countryside

#### Introduction:

Optical fibres are housed in a loose tube that is made of high-modulus plastic and filled with tube fulling compound. The tube is armored with a layer of glass fiber tapes as the strength member. Then a LSZH sheath is extruded. In the distribution segment of optical cable networks in rural areas, the cable can be used as drop cables for self-supporting aerial installation to connect branching points with access points for subscribers.

#### Features:

Good mechanical and temperature performances All-dielectric design, applicable to lightning-prone areas Aramid yarns ensuring tensile strength of optical cable Small size and light weight, easy for installation Glass fiber tape armor providing certin anti-rodent performance

### Cross Section:





Strength Member: Glass yarn / GFRP tape Loose Tube: high modules themoplastic mateial Optical Fiber Tube Filling: suitable water blocking filling compound OuteSheath: black polyethylene

### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Bending Radius Dynamic/static
GYGXY-02-12Xn	6.0(3.0optical unit)	35	600/1500	300/1000	20D/10D

Note: This specification provides a normative reference. Adjustable outer diameter to suit your budget. Contact us ASAP.

### Environmental Characteristics:

Transport/storage temperature: -40  $^\circ C$  ~70  $^\circ C$ 

### Delivery Length:





### GTJGA Slotted-core Tight Buffered Fibers APL Armored with CSM Fiber Optic Cable for Networks in Rural Areas Vast Countryside

#### Introduction:

Tight buffered fibres are housed in slots in different numbers as needed. A phosphated steel wire is used as the central strength member. The slotted core is wrapped with water-blocking tape and a rip cord is placed outside the tape. Then the core is armored with laminated aluminum tape and a PE sheath is extruded.

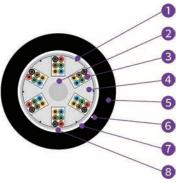
In the distribution segment of optical networks in rural areas, the cable can be used as drop cables for non self-supporting aerial installation to connect branching points with access points for subscribers.

#### Features:

All-dry design, improving efficiency of construction and splicing Easy for branching of a singlefibre Good mechanical and temperature performances Applicable to outdoor duct or aerial installations, and vertical installation

### Cross Section:





1, Rib Mark 2, Strength Member 3, Tight Buffered Fibre 4, Slot 5, Sheath 6, Ripcord 7, APL 8, Water Blocking Tape

### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Slot No.	Fiber count per slot	Fiber Diameter
GTJGA-24Xn	11.5(1.2Thickness)	125	6	4	0.55
GTJGA-48Xn	12.8(1.2Thickness)	140	6	8	0.55

Note: This specification provides a normative reference. Adjustable outer diameter to suit your budget. Contact us ASAP.

### Environmental Characteristics:

Transport/storage temperature: -40°C~70°C

### Delivery Length:





### GYFXBY Flat-shape & Self-supporting Uni-tube Fiber Optic Cable for Networks in Rural Areas Vast Countryside

### Introduction:

Optical fibres are housed in a loose tube that is made of high-modulus plastic and filled with tube filling compound. Two glass fibre reinforced plastic(FRP)rods are placed outside the tube in parallel, and water-blockingyarns is placed between the tube and the rods, then a flat-shape PE sheath is extruded.

In the distribution segment of optical networks in rural areas, the cable can be used as drop cables for self-supporting aerial installation to connect branching points with access points for subscribers.

### Features:

Accurate process control ensuring good mechanical and temperature performances Unique flat shape providing excellent crush resistance,applicable to special wedge clamps for installation Two FRP strength members in parallel close to the tube, easy for stripping All-dielectric design, applicable to lightning-prone areas Uni-tube,small ize and light weight, easy for installation

### Cross Section:



1, Fibre 2, Strength Member 3, Sheath 4, Tube Filling Compound 5, Water Blocking Yarn 6, Loose Tube

### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Diameter FRP	Tensile strength Long/short term (N)	Crush Long/short term (N/100mm)
GYFXBY-02-24Xn	4.6*8.1(3.0tube)	35	1.6	400/1400	1000/5000

Note: This specification provides a normative reference. Adjustable outer diameter to suit your budget. Contact us ASAP.

### Environmental Characteristics:

Transport/storage temperature: -40  $^\circ\!\mathrm{C}\,{\sim}70\,^\circ\!\mathrm{C}$ 

### Delivery Length:





### GYAXTC8Y Figure-8 Steel wire Self-supporting Uni-tube with Aramid Yarns Fiber Optic Cable for Networks in Rural Areas Vast Countryside

### Introduction:

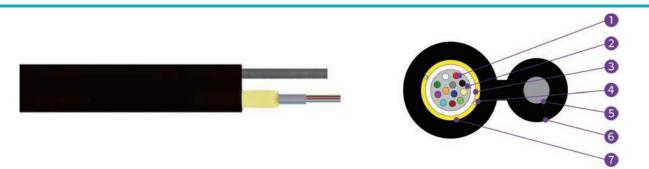
Optical fibres are housed in aloose tube that is made of high-modulus plastic and filled with tube filling compound. The tube is surrounded with dry water blocking materials and armored with aramid yarns. A single steel wire or stranded steel wires are applied as the messenger. Finally, a figure-8 PE sheath is extruded.

In the distribution segment of optical networks in rural areas, the cable can be used as drop cables for self-supporting aerial installation to connect branching points with access points for subscribers.

#### Features:

Figure-8 design,easy for self-supporting aerial installation,reducing installation costs Good mechanical and temperature performances Small size,light weight and soft, easy for installation Applicable to short distance self-supporting aerial installation

### Cross Section:



1, Fibre 2, Tube Filling Compound 3, Loose Tube 4, Water Blocking Tape 5, Steel Wire 6, PE Sheath 7, Aramid Yarn

### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Diameter wires	Tensile strength Long/short term (N)	Crush Long/short term (N/100mm)
GYAXTC8Y-02-12Xn	5.4*9.5(3.0tube)	45	1.6	600/1500	300/1000
GYAXTC8Y-12-24Xn	5.6*9.8(3.0tube)	45	1.6	600/1500	300/1000

Note: This specification provides a normative reference. Adjustable outer diameter to suit your budget. Contact us ASAP.

### Environmental Characteristics:

Transport/storage temperature: -40°C~70°C

### Delivery Length:





### GYFC8A-3U 3-Unit Tube with Fibers FRP Strength APL Tapes Figure-8 Steel wire Self-supporting Micro Optical Cable

### Introduction:

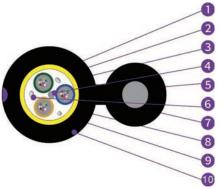
Optical fibres are housed in 3 loose tubes that are made of high-modulus plastic and filled with tube filling compound. The tubes are stranded around the central strength member to form a cable core. The core is surrounded with water blocking yarns and armored with laminated aluminum tape. A steel wire is applied as the messenger. Finally, a figure-8 PE sheath is extruded. This type of cable is typically applicable to self-supporting aerial installation.

### Features:

Figure-8 design,easy for self-supporting aerial installation,reducing installation costs Good mechanical and temperature performances Small size,light weight and soft, easy for installation Applicable to short distance self-supporting aerial installation

### Cross Section:





1, Fibre 2, Stripe 3, Loose Tube 4, FRP 5, Tube Filling Compound 6, Water Blocking Yarn 7, Steel Wire 8, APL 9, PE Sheath 10, Ripcord

### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Diameter wires	Tensile strength Long/short term (N)	Crush Long/short term (N/100mm)
GYFC8A(3U)-02-12Xn	7.5*12.5	62	1.6	600/1500	300/1000

Note: This specification provides a normative reference. Adjustable outer diameter to suit your budget. Contact us ASAP.

### Environmental Characteristics:

Transport/storage temperature: -40  $^\circ\!\mathrm{C}\,{\sim}70\,^\circ\!\mathrm{C}$ 

### Delivery Length:





## GLOBAL MARKET



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