

# Distributed Base Stations Optical Fiber Cable

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



#### **Optical cables for Distributed Base Stations**

#### Solutions for 4G Business:

With the construction of 4G networks communication cables and equipment keep extending toward the subscribers. The power supply for equipments of remote base stations.communication rooms, access points for subscribers has become a tough problem. The solution of DC remote power supply by hybrid optical and electrical cables can not only facilitate the centralized construction and maintenance of power supply devices in the network, but also realize the efficient cable transmission of electric energy and optical signals. In addition to solving the aforesaid problems, the solution of DC remote power supply by hybrid optical and electrical cables can reduce the costs of construction and maintenance, and enhance efficiency.

#### Principle of remote power supply:

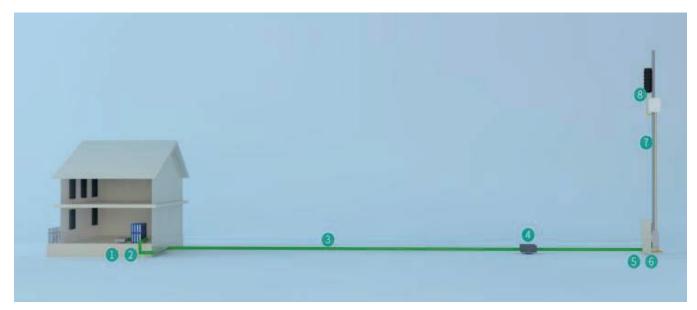
DC remote power supply system consists of a central office terminal (COT) and a remote terminal (RT). The power of COT can be boosted from DC 48V to DC 220~410V(adjustable) and transmitted to RT by hybrid optical and electrical cables, and then dropped to DC 48V(DC 280V might be converted to AC220V) to supply to the loads(RRU, optical fiber repeater, small micro base station, ONU, etc.). In this way, maintenance-free power is all-weather supplied.

#### Applications:

1.Point-to-point

Scenario: network with single RRU or multple RRUs

Applicable to the situationwhere RT devices are gathered at one point but far away from COT 1-COT 2-ODB 3-Hybrid optical and electrical stranded loose tube cable 4-Joint box for hybrid cable 5-ODB((lightning-proof) 6-RT 7-Hybrid optical and electrical tight buffered patch cord 8-RF patch cords





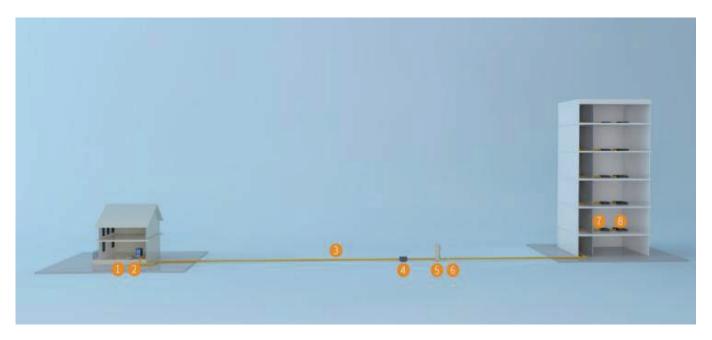
2. Point-to-multipoint

Scenarlio: lindoor 4G coverage

Applicable to the situation where RT devices are scattered far away

Joint box forhybrid cable

1-COT 2-ODB 3-Hybrid optical and electrical stranded loose tube cable 4-Joint box for Hybrid cable 5-ODB( (lightning-proof) 6-RT 7-Hybrid optical and electrical tight buffered patch cord 8-RF patch cord



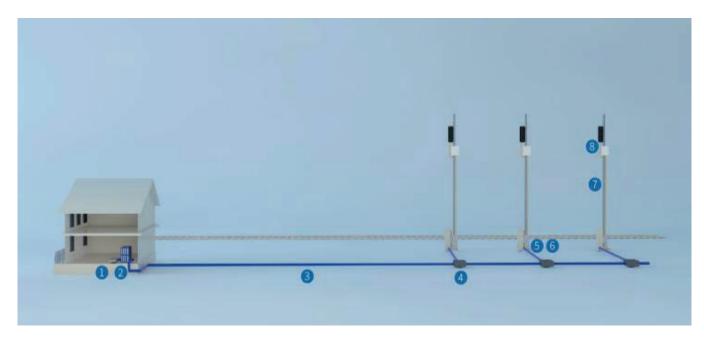
3.Cascade

Scenario: network covering highways, railways and tunnels  $\cdot$ 

Applicable to the situation where multiple base stations are distributed far away from each other in one direction.

1-OCT 2-ODB 3-Hybrid optical and electricalstranded loose tube cable 4-Joint box for hybrid cable

5-ODB (lightning-proof) 6-RT 7-Hybrid optical and electrical tight buffered patch cord 8-RF patch cord





#### **Product Series:**

	1 Hybrid Optical and ElectricalCable Applied in AccessNetwork	GDTC8S	Self-supporting Aerial PSP
1		GDTA53	BuiredInstallation
		GDTA,GDTS	Ductor AerialInstallation
		GDFJAH	Hybrid Optical FiberElectrical APLLSZH
	2 Hybrid Optical Cable Applied in WirelessRRU	GDFJAHP	Hybrid Optical FiberElectrical APLLSZH
2		GJYFJH	Sub-unit Aramid yarn LSZHSheath
2		GJYWFJH	TBFAramid LSZHSheath
		GJYXFH	Multi-core Aramid YarnsDouble Sheath
		GDFJH	Hybrid Optical and Electricalsteel hose



#### **GDTC8S**

### Figure-8 Steel Wire Hybrid Optical Fiber and Electrical Cable PSP Armored for Distributed Base Station

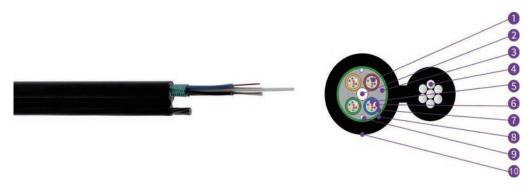
#### Introduction:

Single-mode or multimode fibers are housed in loose tubes that are made of high modulus plastic and filled with tube filling compund, In the center of cable is a metallic strength member, The tubes and copper wires are stranded around the central strength member to form a cable core. The core is filled with cable filling compound and armored with corrugated steel tapes. Stranded steel wires are applied as the messenger. Finally.a figure-8 PE Outer sheath is extruded.

#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Optical and electrical hybrid design, solving the problem of power supply and signal transmission
- Providing manageability of power and reducing coordination and maintenance of power supply
- Reduing procurement costs and saving construction costs
- Mainly used to connect BBU,RRU in DC remote power supply system for distributed base station
- Applicable to self-supporting aerial installation

#### Cross Section:



1,Copper Wire 2,Strength Member 3,Cable Filling Compound 4,Steel Wire 5,Fibre 6,Tube Filling Compound 7,Loose Tube 8,PSP 9,Ripcord 10,PE Sheath

#### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Bending radius Dynamic/static mm
GDTC8S02-24Xn+2×2.5	13.1*20.6	297	1000/3000	1000/3000	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°C ~70°C

#### Delivery Length:





## GDTA Hybrid Optical Fiber and Electrical Cable APL Armored for Distributed Base Station

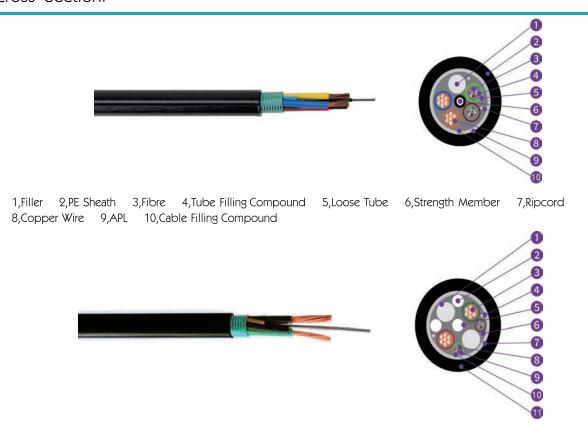
#### Introduction:

Single-mode or multimode fibers are housed in loose tubes that are made of high modulus plastic and filled with tube filling compund, In the center of cable is a metallic strength member, The tubes and copper wires are stranded around the central strength member to form a cable core. The core is filled with cable filling compound and armored with Aluminum tapes. Finally, PE Outer sheath is extruded.

#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Optical and electrical hybrid design, solving the problem of power supply and signal transmission
- Providing manageability of power and reducing coordination and maintenance of power supply
- Reduing procurement costs and saving construction costs
- Mainly used to connect BBU,RRU in DC remote power supply system for distributed base station
- Applicable to Duct aerial installation

#### Cross Section:



1,Filler 2,Filler 3,Copper Wire 4,Ripcord 5,Strength Member 6,Cable Filling Compound 7,APL 8,Fibre 9,Tube Filling Compound 10,Loose Tube 11,PE Sheath



Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Structure
GDTA-02-24Xn+2×1.5	11.2	132	600/1500	300/1000	Structure I
GDTA-02-24Xn+2×2.5	12.3	164	600/1500	300/1000	Structure I
GDTA-02-24Xn+2×4.0	14.4	212	600/1500	300/1000	Structure II
GDTA-02-24Xn+2×5.0	14.6	258	600/1500	300/1000	Structure II
GDTA-02-24Xn+2×6.0	15.4	287	600/1500	300/1000	Structure II
GDTA-02-24Xn+2×8.0	16.5	350	600/1500	300/1000	Structure II

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

#### Environmental Characteristics:

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

#### Delivery Length:



#### **GDTS**

### Hybrid Optical Fiber and Electrical Cable PSP Armored for Distributed Base Station

#### Introduction:

Single-mode or multimode fibers are housed in loose tubes that are made of high modulus plastic and filled with tube filling compund, In the center of cable is a metallic strength member, The tubes and copper wires are stranded around the central strength member to form a cable core. The core is filled with cable filling compound and armored with Corrugated steel tapes. Finally, PE Outer sheath is extruded.

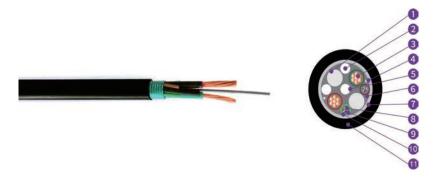
#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Optical and electrical hybrid design, solving the problem of power supply and signal transmission
- Providing manageability of power and reducing coordination and maintenance of power supply
- Reduing procurement costs and saving construction costs
- Mainly used to connect BBU,RRU in DC remote power supply system for distributed base station
- Applicable to Duct aerial installation

#### Cross Section:



1,Filler 2,Strength Member 3,Fibre 4,Tube Filling Compound 5,Loose Tube 6,Cable Filling Compound 7,PSP 8,Ripcord 9,Copper Wire 10,PE Sheath



1,Filler 2,Filler 3,Copper Wire 4,Ripcord 5,Cable Filling Compound 6,Strength Member 7,PSP 8,Fibre 9,Tube Filling Compound 10,Loose Tube 11,PE Sheath



Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Structure
GDTS-02-24Xn+2×1.5	11.6	157	600/1500	300/1000	Structure I
GDTS-02-24Xn+2×2.5	12.5	190	600/1500	300/1000	Structure I
GDTS-02-24Xn+2×4.0	14.6	241	600/1500	300/1000	Structure II
GDTS-02-24Xn+2×5.0	15	282	600/1500	300/1000	Structure II
GDTS-02-24Xn+2×6.0	15.7	300	600/1500	300/1000	Structure II
GDTS-02-24Xn+2×8.0	16.9	383	600/1500	300/1000	Structure II

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

#### Environmental Characteristics:

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

#### Delivery Length:



#### GDTA53

### Hybrid Optical Fiber and Electrical Cable Double Sheath APL PSP Armored for Distributed Base Station

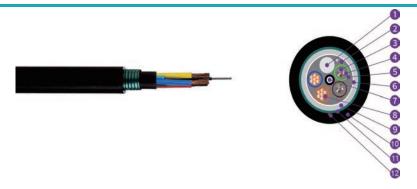
#### Introduction:

Single-mode or multimode fibers are housed in loose tubes that are made of high modulus plastic and filled with tube filing compund, In the center of cable is a metallic strength member, The tubes and copper wires are stranded around the central strength member to form a cable core. The core is filled with cable filling compound and armored with Aluminum Tape, then an PE inner sheath is extruded and armored Corrugated steel tapes. Finally, PE Outer sheath is extruded.

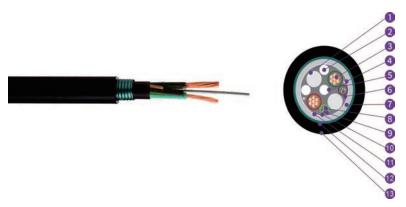
#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Optical and electrical hybrid design, solving the problem of power supply and signal transmission
- Providing manageability of power and reducing coordination and maintenance of power supply
- Reduing procurement costs and saving construction costs
- Mainly used to connect BBU,RRU in DC remote power supply system for distributed base station
- Applicable to Duct aerial installation

#### Cross Section:



1,Filler 2,Cable Filling Compound 3,Fibre 4,Tube Filling Compound 5,Loose Tube 6,APL 7,Strength Member 8,Copper Wire 9,PE Inner Sheath 10,PE Outer Sheath 11,PSP 12,Ripcord



1,Filler 2,Filler 3,Copper Wire 4,Ripcord 5,Strength Member 6,Cable Filling Compound 7,PE Inner Sheath 8,Fibre 9,Tube Filling Compound 10,Loose Tube 11,APL 12,PSP 13,PE Outer Sheath



Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Structure
GDTA53-02-24Xn+2×1.5	15.1	290	1000/3000	1000/3000	Structure I
GDTA53-02-24Xn+2×2.5	15.5	312	1000/3000	1000/3000	Structure I
GDTA53-02-24Xn+2×4.0	18.2	358	1000/3000	1000/3000	Structure II
GDTA53-02-24Xn+2×5.0	18.6	390	1000/3000	1000/3000	Structure II
GDTA53-02-24Xn+2×6.0	19.9	435	1000/3000	1000/3000	Structure II
GDTA53-02-24Xn+2×8.0	20.8	478	1000/3000	1000/3000	Structure II

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

#### Environmental Characteristics:

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

#### Delivery Length:





#### **GDFJAH**

### Hybrid Optical Fiber sub-unit and Electrical Cable APL Armored LSZH Sheath for Distributed Base Station

#### Introduction:

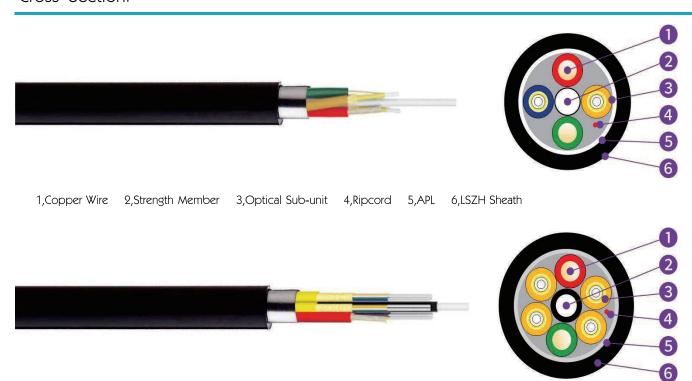
Tigh buffer fibers are surrouded with a layer of aramid yarns as the strength member. A LSZH inner sheath is extruded on the tight buffered fiber to form an optical sub unit. Then optical sub unit and copper wires are stranded around a non metallic central strength member to form a cable core. The core is armored with laminated aluminum tape. Finally, A LSZH outer sheath is extruded, Other sheath material are available on request.

#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Optical and electrical hybrid design, solving the problem of power supply and signal transmission
- Providing manageability of power and reducing coordination and maintenance of power supply
- Reduing procurement costs and saving construction costs
- Mainly applied to local fibre remote for short distance at wireless base stations
- Applicable to Duct aerial installation

#### Cross Section:

1,Copper Wire



2, Strength Member 3, Optical Sub-unit 4, Ripcord 5, APL 6, LSZH Sheath



Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Structure
GDFJAH-2Xn+2×0.75	7.5	80	200/400	500/1000	Structure I
GDFJAH-2Xn+2×1.0	8	88	200/400	500/1000	Structure I
GDFJAH-2Xn+2×1.5	9.6	105	200/400	500/1000	Structure I
GDFJAH-2Xn+2×2.0	10.3	119	200/400	500/1000	Structure I
GDFJAH-2Xn+2×4.0	11.5	159	200/400	500/1000	Structure I
GDFJAH-6Xn+2×0.5	10.5	110	200/400	500/1000	Structure II

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

#### Environmental Characteristics:

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

#### Delivery Length:





#### **GJYFJH**

### Sub-unit Aramid yarn LSZH Sheath Fiber Optic Cable for Distributed Base Station

#### Introduction:

Tigh buffer fibers are surrouded with a layer of aramid yarns as the strength member. A LSZH inner sheath is extruded on the tight buffered fiber to form an optical sub unit. Then optical sub unit and fillers are stranded into a cable core. Finally, A LSZH outer sheath is extruded, Other sheath material are available on request.

#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Excellent crush resistance and flexibility
- Small size and light weight, supporting bulk data transmission
- Reduing procurement costs and saving construction costs
- Mainly applied to horizontal and vertical cabling wireless base station, applicable to FTTA

#### Cross Section:



1,Strength Filler 2,Tight Buffered Fibre 3,Aramid Yarn 4,Sub-unit Sheath 5,Outer Sheath

#### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Bending Radius Dynamic/static
GJYFJH-2Xn	7	42.3	200/400	500/1000	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°C ~70°C

#### Delivery Length:





#### **GJYWFJH**

### Tight Buffered Fiber with Aramid LSZH Sheath Fiber Optic Cable for Distributed Base Station

#### Introduction:

Tigh buffer fibers are surrouded with a layer of aramid yarns as the strength member. Then A LSZH sheath is extruded, Other sheath material are available on request.

#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Excellent crush resistance and flexibility
- Small size and light weight, supporting bulk data transmission
- Mainly applied to horizontal and vertical cabling wireless base station, applicable to FTTA

#### Cross Section:



#### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Bending radius Dynamic/static mm
GJYWFJH-2Xn	4.8	28.3	200/400	500/1000	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°C ~70°C

#### Delivery Length:



#### **GJYXFH**

### Multi-core Fibers Aramid Yarns Double Sheath Optic Cable for Distributed Base Station

#### Introduction:

Optical fibers are surrouded with a layer of aramid yarns as the strength member. Then A LSZH sheath is extruded and another layer of aramid yarns is places outside the inner sheath, Finally a LSZH outer sheath is extruded. The strength members can be made of other high strength yarns and Other sheath material are available on request.

#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Excellent crush resistance and flexibility
- Small size and light weight, supporting bulk data transmission
- Mainly applied to horizontal and vertical cabling wireless base station, applicable to FTTA

#### Cross Section:



1, Fiber 2, Aramid Yarn 3, Ripcord 4, InnerSheath 5, Aramid Yarn 6, Outer Sheath

#### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Bending radius Dynamic/static mm
GJYXFH-2Xn	7.0(2.8mm Inner)	38.3	200/400	500/1000	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°C ~70°C

#### Delivery Length:



# GDFJH Hybrid Optical and Electrical with steel hose Fiber Optic Cable for Distributed Base Station

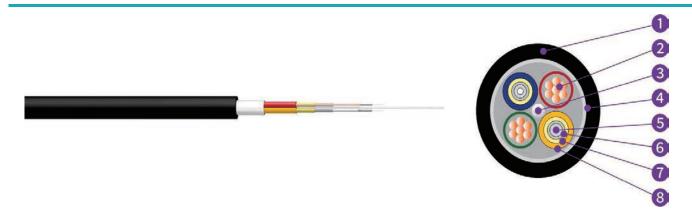
#### Introduction:

Tight bufferd fibers are surrouded with a helical steel hose and a layer of aramid yarns as the strength member. Then A LSZH sheath is extruded to form an optical sub unit. Optical sub units and copper wires are stranded around a non metallic central strength member to form a cable core, The core is wrapped with water blocking tape. Finally, a LSZH outer sheath is extruded, Other sheath materials are available on request.

#### Features:

- Accurate process control ensuring good mechanical and temperature performances
- Stainless steel hose armor providing better protection to fibers
- All dry hybrid structure, supporting bulk data transmission and power supply for RRU devices
- Mainly applied to local fibre remote for short distance at wireless base stations

#### Cross Section:



1,Outer Sheath 2,Copper Wire 3,Strength Member 4,Water Blocking Tape 5,Tight Buffered Fibre 6,Helical Steel Hose 7,Aramid Yarn 8,Sub-unit Sheath

#### Technical Characteristics:

Туре	Diameter mm	Weight (kg/km)	Tension(N) Long/short	Crush Resistance Long/short (N/100mm)	Bending radius Dynamic/static mm
GDFJH-2Xn+2*1.5	9.5(3.0optical unit)	110	400/800	500/1000	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  $^{\circ}\text{C} \sim 70 ^{\circ}\text{C}$ 

#### Delivery Length:





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