



TELUNIX

*PRODUCT  
CATALOUGE*

**TELUNIX has formed itself as a global supplier in passive end-to-end solutions for telecommunications. We act for and with our clients and adopt the highest technology to create and provide our clients with the top and most valuable and guaranteed solutions. Our Perspective is to establish a long relations with our customers by keeping business through innovative and advanced technologies". Therefore, whatever that you demand, we will be one of your best choices.**

**We provide a full solution for TELECOM, DATA CNETERS, with a full capacity to supply all passive products for Fiber Optic and Copper Structured Cabling. we have designed and engineered our own products and have partners with the capabilities to produce them. This gives us the flexibility to adapt our products to meet the needs of any application, whilst allowing development of the core products.**

# *Fiber Network Solutions*

## **Outdoor Fiber Optic Cabling Solutions**

- Stranded Loose Tube Cable with Steel Tape.
- Stranded Loose Tube Cable with Aluminium.
- Figure 8 Fiber Optic Cable.
- Armoured Fiber Optic Cable- Figure 8.
- Aerial Self-supporting Armoured Figure 8 Cable.
- Aerial ADSS Fiber Optic Cable.
- Outdoor Duct Aerial Uni-tube Light-Armoured Cable.
- Single Layer All-Dielectric Self-Supporting ADSS Optical Cable.

## ***ADSS Multi-Tube (MT) FiberGlass Rods (FRP) Defender***

### **Indoor Fiber Optic Cabling Solution**

- Non-Armoured Stranded Loose Tube Cable.
- Multi-Purpose Break-out Fiber Optic Cable.
- Micro Tube Drop Riser Fiber optic Cable.
- Single mode Multimode Breakout bundle distribution Indoor Fiber Optic Cable.
- Bundle Indoor Fiber Cable.
- Multi Core Branch Indoor Optical Cable.
- Indoor Flat Fiber Ribbon Fiber Optic Cable.
- Distribution Fiber Optic.
- Duplex Flat Fiber Optic Cable.
- Simplex Fiber Optic Cable.

### **Fiber Cables to The Home Solutions (FTTH)**

- 1-12 Core Outdoor FTTH Drop Cable with LSZH Jacket.
- 1-12 Core Indoor/Outdoor FTTH Drop Cable FRP KFRP Steel Wire.
- Outdoor FTTH Self-supporting Drop Cable With 7 Stranded Steel Wire.
- Outdoor FTTH Fiber Drop Cable with Steel Wire.
- Flat Fiber Optic Drop Cable FRP PE Sheath.
- 1-12 Core Indoor FTTH Drop Cable FRP KFRP Steel Wire.



- Outdoor FTTH Drop Cable With 7 Stranded Steel Wire.
- Indoor FTTH Drop Fiber Optical Cable 1~12core.
- FTTH Duct Drop Cable.
- Indoor/outdoor Micro-tube 12 cores Fiber optic Cable SM G657A2.
- FTTH Indoor 2 Core Fiber Optic Cable Double Fly G652D G657A.
- 5.0mm Outdoor Drop Cable.
- 3.0mm Drop Cable TPU Jacket.

### ***Special Optical Fiber Cabling Solution***

#### **Submarine Solution**

- Unrepeated Submarine Optical Fiber Cable.
- Submarine Optical Fiber Cable with Steel Wire.

#### **Military Field Solution**

- Tactical Fiber Optic Cable.
- Military Communication System Tactical Fiber Optic Cable.
- Tactical Fiber Optic Cable with Helical Armoured.

#### **Hybrid Solution**

- Hybrid Fiber Cable Self-Supporting Composite Optical Cable.

#### **Anti-Rodent Solution**

- Armoured Direct Buried Anti Rodent Optical Cable.
- Anti-rodent 2-144 core Fiber Optic Cable.
- Anti-termite Optical Cable with Double Metallic Armors and Nylon Sheat.
- Non-metallic Anti-rodent Optical Cable.
- Non-metallic Anti-rodent Optical Cable.
- ADSS Multi-Tube (MT) FiberGlass Rods (FRP) Defender.
- Aerial ADSS Multi-Tube (MT) Fiber Glass Yarns.
- Nylon Sheath Anti Rodent Fiber Optic Cable.
- Anti-Rodent Outdoor Aluminium Armored Cable.

- Armored Direct Buried Anti Rodent Optical Cable.

### **Mine Cable**

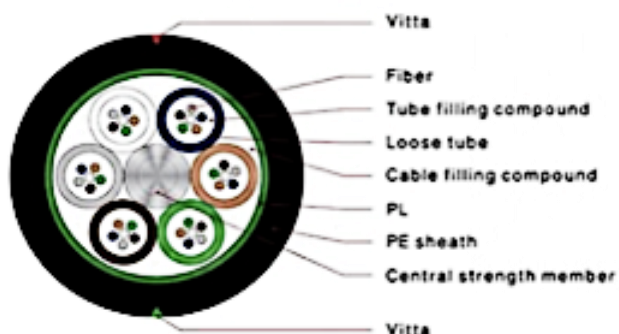
- Unitube Mining Fire Resistant Fiber Optic Cable.

### **OPGW Cabling Solution**

- OPGW Stranded Stainless Steel Tube.
- OPGW Central AL-covered Stainless-Steel Tube.
- OPGW Central Stainless-Steel Loose Tube.
- OPGW with PBT Aluminium Tube.
- Stainless Steel Tube Optical Fiber Unit.

# *Outdoor Fiber Optic Cabling Solution*

## Stranded Loose Tube Cable with Steel Tape



Single and Multi-Loose Tube for Fiber Cable is suitable for outdoor and indoor use, the tubes are filled with water blocking filling compound. Tubes and fillers are stranded around the strength member into a circular cable core. An PSP is applied around the core which is filled with the filling compound to protect it. Then the cable is completed with a PE sheath.

<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

**Application** Aerial/Duct/Outdoor.

### Features

- Up to 144 fiber cores.
- The loose tube stranding technology make the fibers to have a good secondary excess length and allow the fibers free movement in the tube, which keeps the fiber stress-free while the cable is subjected to longitudinal stress.
- Corrugated steel tape armoured and PE outer sheath is providing property crush resistance and gunshot resistance features.
- Metal strength member provides excellent strain performance.
- Low dispersion and attenuation Proper design, precise control for fiber excess length and distinct stranding process, render the cable excellent mechanical and environmental properties.
- The armouring of corrugated steel tape make cable have nice properties of moisture resistance and crush resistance.
- With small cable diameter, light cable weight, easily to lay.
- The jacket also can be made of HFFR.

### Operating Temperature

Operating: -40°C to +70°C.

Storage: -40°C to +70°C.

**Standards** IEC 60794-1.

## Technical Parameters

Cable Diameter mm	Cable Weight kg/km	Rec. daily max. working tension KN	Max. allowable working tension KN	Break strength KN	Strentht Member CSA mm2	Modulus of Elasticity kN/mm2	Heat
							Expansion coefficient x10-6/K
12.5	125	1.5	4	10	4.6	7.6	1.8
13	132	2.25	6	15	7.6	8.3	1.5
13.3	137	3	8	20	10.35	9.45	1.3
13.6	145	3.6	10	24	13.8	10.8	1.2
13.8	157	4.5	12	30	14.3	11.8	1
14.5	164	5.4	15	36	18.4	13.6	0.9
14.9	171	6.75	18	45	22	16.4	0.6
15.1	179	7.95	22	53	26.4	18	0.3
15.5	190	9	26	60	32.2	19.1	0.1
15.6	194	10.5	28	70	33	19.6	0.1
16.3	211	12.75	34	85	40	20.1	0.1
16.8	226	15.45	41	103	48	24	-0.4
17.2	236	16.2	45	108	51	25.1	-0.5
17.9	249	18	50	120	58.8	26.1	-0.8

Storage/Operating Temperature: -40°C to + 70°C

## Optical Characteristics

	G.652.D	G.655.D	50/125μm	62.5/125μm	
Attenuation @850nm	≤3.0dB/km			≤3.0dB/km	≤3.0dB/km
@1300nm			≤1.0dB/km	≤1.0dB/km	
@1310nm	≤0.36dB/km	≤0.40 dB/km			
@1550nm	≤0.22dB/km	≤0.32 dB/km			
Bandwidth @850nm				≥500MHZ•KM	≥200MHZ•KM
@1300nm			≥1000MHZ•KM	≥600MHZ•KM	
Numerical Aperture			0.200±0.015NA	0.275±0.015NA	
Cable Cut-off Wavelength λ <sub>cc</sub>	≤1260nm	≤1480nm			

## Stranded Loose Tube Cable with Aluminium

Stranded Loose Tube Cable with Aluminium Single Mode & Multi Mode fibers are positioned in the loose tubes, the tubes, also, are filled with water blocking filling compound. Tubes and fillers are stranded around the strength member into a circular cable core. An APL is applied around the core which is filled with the filling compound to protect it. The cable is completed with a PE sheath.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

**Application** Aerial/Duct/Outdoor.

### Features

- Single steel wire used as the central strength member.
- Special water-blocking filling compound in the loose tube.
- 100% cable core filling.

### Temperature Range

Operating: -40°C to +70°C.

Storage: -40°C to +70°C.

**Standards:** IEC 60794-1.

**Figure 8 Fiber Optic Cable**



Single Mode and Multi-Mode fibers are positioned in the loose tube which is made of high modulus plastic materials and filled with filling compound. PSP is longitudinally applied around the loose tube, and water-blocking materials are distributed into interstices of it. Then this part of cable accompanied with the stranded wires as the supporting part are completed with a PE sheath to be a figure-8 structure.

<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

**Application** Self-supporting Aerial.

### Features

- Excellent mechanical and temperature performance.
- Critical protection to fibers.

### Temperature Range

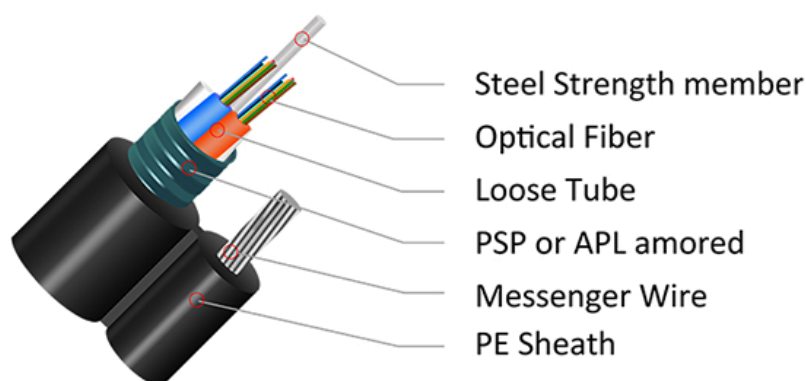
Operating: -40°C to +70°C.

Storage: -40°C to +70°C.

**Standards:** IEC60794-1.

## Armoured Fiber Optic Cable- Figure 8

Figure 8 Armoured fiber optic cable, SM & MM fibers are positioned in the loose tubes, while the loose tubes strand together around metallic central strength member into a compact and circular cable core, and the water-blocking materials are distributed into interstices of it. After a PSP/APL is applied around the cable core, this part of cable accompanied with the stranded wires as the supporting part are completed with a PE sheath to be a figure-8 structure.



### Features

- Up to 288 Fiber Optic.
- Cable section is “8”, with 7\*1.2mm steel wires.
- PSP corrugated steel tape.
- Steel wire strength member.
- PBT loose tube, each tube max 12 fibers.
- The loose tube stranding technology make the fibers have good secondary excess length and allows the fibers free movement in the tube which keeps the fiber stress-free while the cables are subjected to longitudinal stress.
- Corrugated steel tape armored and PE outer sheath providing propriety crush resistance and gunshot resistance features.
- Stranded wires as self-supporting member providing excellent strain performance and convenient installation.
- Waterproof tape gel compounds the fiber section all waterproof.
- Steel tape armored with good crush resistance performance, also anti-rodent.

### General Specifications

<b>Fiber Type</b>	SM, OM1, OM3
<b>Application</b>	Long-distance communication, LAN
<b>Recommended installation methods</b>	Aerial
<b>Environment</b>	Outdoor
<b>Temperature Range</b>	-40°C to 70°C



**Applications** Easy aerial installation because of figure8 self-supporting design with simple and easy installation tools & accessories.

**Standard** IEC 60794-1

### Cable Design

Item	Description
Fiber count (CORE)	48
Cable outer diameter	10.0±0.2mm
Cable height	18.0±0.2mm
Cable Weight	150KG
Central Strength member	Optional
Material	Steel wire
Diameter	1.4mm
Loose Tube	12 Fiber Per Tube
Material	PBT
Outer diameter	1.6-2.0 mm
Thickness	0.3mm
Type of filling compound	Jelly
Material	PP
Outer diameter	1.6-2.0 mm
Material	Corrugated steel tape
Messenger wire	
Material	Steel wire
Structure	1.0/7-3.0mm
Tube Layout	1+5
Stranding type	SZ
Water-blocking system	
Material	Filling Compound
Core wrap	
Material	Polyester tape
Outer Sheath	
Material	MDPE
Thickness	1.8mm±0.2mm
Sheath marking	
Type of marking	Laser printing

## Aerial Self-supporting Armoured Figure 8 Cables

The Aluminium Polyethylene Laminates (APL) protects the cable from rodent and termites. The PE Sheath provides UV and Chemical/Oil resistance. Steel Wire as central strength member, stranded loose tubes construction with 100% filling compound to prevent ingress, Aluminium Polyethylene Laminate (APL) for Armouring, Stranded Wires as self-support and overall PE Outer sheath.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

**Application** Outdoor Self-Supporting Aerial installation.

### Temperature Range

Storing temperature: -40°C to +70°C.

Operating temperature: -30°C to +70°C.

**Standard:** IEC60794-1.

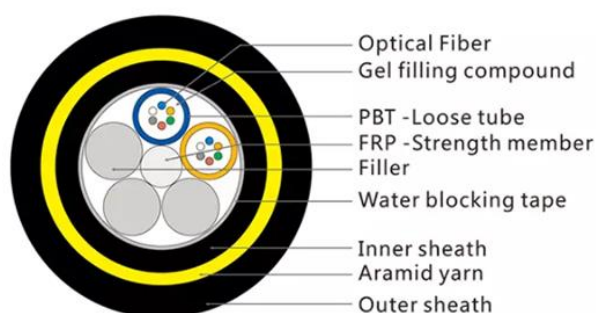
### Technical Parameters

Fiber Count	Cable Diameter mm	Cable Weight kg/km	Tensile Strength Long/Short Term N	Crush Resistance Long/Short Term N/100mm
2 ~ 30	9.5 x 19.1	160	2000/6000	300/ 1000
32 ~ 36	10.1 x 19.7	170	2000/6000	300/ 1000
38 ~ 60	10.8 x 20.4	180	2000/6000	300/ 1000
62 ~ 72	12.4 x 22.0	195	2000/6000	300/ 1000
74 ~ 96	13.1 x 22.7	222	2000/6000	300/ 1000
98~ 120	15.7 x 22.3	238	2000/6000	300/ 1000
122~ 144	15.5 x 25.1	273	2000/6000	300/ 1000

## Aerial ADSS Fiber Optic Cable

Double Layer Aerial ADSS Cable is used for communication cable of overhead high-voltage electricity transmission system, it also can be used as communication cable at the areas where lighting is frequent or distance is big. Aramid yarn is used as the strength member to assure the tensile and strain Performance.

Mainly installed at existing 220kV or lower voltage power lines. Two Jacket and stranded loose tube design.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

**Application** Outdoor Self-Supporting Aerial installation.

### Features

- Light weight, small cable diameter.
- Can be continuously electric erection.
- Using AT sheath, large span.

### Temperature Range

Storing temperature: -40°C to +70°C.

Operating temperature: -30°C to +70°C.

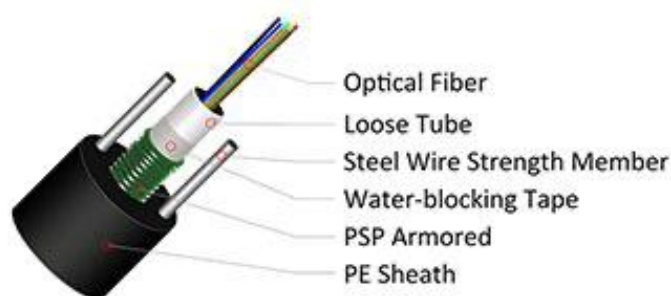
**Standards** IEEE 1222-2004 & IEC 6079-1.

### Optical Fiber Parameter

<b>Fiiber Type</b>	G652D
<b>Mode Field Diameter</b>	8.6 ~ 9.5±0.7μm
<b>Cladding Diameter</b>	125 ± 1μm
<b>Cladding Non-Circularity:</b>	≤ 1%
<b>Coating Diameter</b>	245 ± 10μm
<b>Attenuation Coefficient</b>	≤ 0.36dB/km at 1310nm, ≤ 0.22dB/km at 1550nm
<b>Chromatic Dispersion</b>	≤3.5ps/nm/km at 1285~1330nm, ≤18ps/nm/km at 1550nm
<b>Zero Dispersion Wavelength</b>	1300~1322nm
<b>PMD Coefficient</b>	≤ 0.2ps/vkm

## Outdoor Duct Aerial Uni-tube Light-Armoured Cable

Duct Aerial Armoured Cable SM & MM fibers are positioned in loose tubes, which is made of high modulus plastic materials and filled with filling compound. PSP is longitudinally applied around each loose tube, and water-blocking materials are distributed into interstices between them to guarantee the compactness and longitudinal water-blocking performance. Two parallel steel wires are placed at both sides of the cable core while PE sheath is extruded over it.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

**Application** Aerial/Duct/Outdoor.

### Features

- Excellent mechanical and temperature performance guaranteed by the accurate excess fiber length.
- Critical protection to fibers, based on the excellent hydrolysis resistance.
- Excellent crush resistance and flexibility.
- PSP enhances the cable crush-resistance, impact-resistance and moisture-proof.
- Two parallel steel wires ensure tensile strength.
- Excellent ultraviolet prevention with PE sheath, small diameter, light weight and installation friendliness.

### Temperature Range

Operating: -40°C to +70°C.

Storage: -40°C to +70°C.

**Standards:** Comply with standard IEC60794-1.

## Single Layer All-Dielectric Self-Supporting ADSS Optical Cable

Mini-Span All-Dielectric Self Supporting (ADSS) fiber optic cable is designed for outside plant aerial and duct applications in local and campus network loop architectures. Mini-Span includes fiber counts up to 144 optical fibers and any type of combination of single-mode and laser-optimized multimode fibers with the cable.

Pole-to-Pole span lengths range from 50 m to over 150 m. Custom ADSS design options allow span lengths of over one mile (5,280 feet).



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

**Span** 50 feet to over 1000 feet.

**Application** Self-support Aerial installation

### Features

- Suitable for use on distribution and high voltage transmission lines with mini spans or self-supporting installation for telecommunication.
- Track -Resistant outer jacket available for the high voltage.
- Line where space potentials up to 35kv.
- Gel-Filled buffer tubes are S-Z stranded.
- Aramid yarn is used as the strength member to assure the tensile and strain performance for mini span (usually below 100 meters).
- The fiber counts from 4-288 fibers.

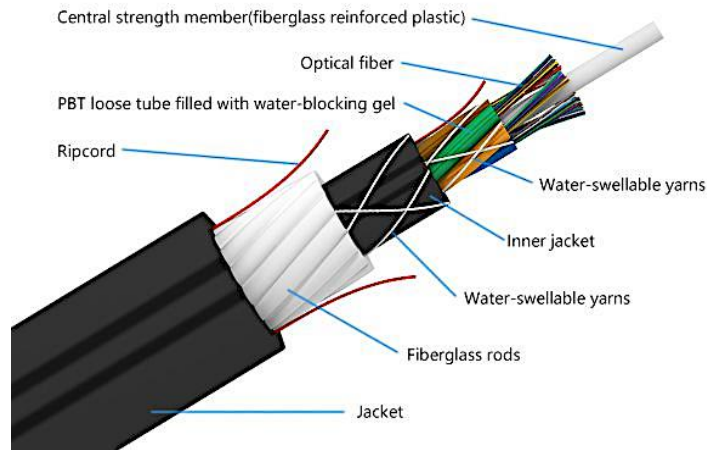
**Standards** IEEE 1222, IEC 60794-4-20, ANSI/ICEA S-87-640, TELCORDIA GR-20, IEC 60793-1-22, IEC 60794-1-2, IEC 60794.

### Technical Parameter

Span (meter)	Weight(kg/km)	Diameter(mm)	Initial Tension (N)Unload/Load
<b>12 Fibers</b>			
50	110	9.0~10.5	892
100	110	9.0~10.5	1338
150	110	9.0~10.5	2232
200	110	12.2	3280
<b>24 Fibers</b>			
50	115	9.0~10.5	904
150	115	9.0~10.5	2261
200	115	12.2	3322

## ADSS Multi-Tube (MT) Fiber Glass Rods (FRP) Defender

This cable combines enhanced optical reliability with the highest degree of rodent resistance available in an all-dielectric cable. It also can be used as an all-dielectric direct buried cable solution.



### Features

- Anti-rodent additive in the outer jacket for first-line protection.
- Designed for use in Aerial Applications of 138kv or less where damage from squirrels/rodent is apparent.
- Superior protection from mechanical damage-FRP rods provide strength and second line protection.
- Completely protected from water ingress.
- Maximum rated design tension up to 4496 lb.

### Optical Fiber Specifications

Maximum rated design tension, lb	<b>1574</b>			
Crush	228 lb/in (0.4 kN/cm)			
Fiber count, up to	48 (4x12)	72 (6x12)	96 (4x24)	144 (6x24)
Cable diameter, in	0.512	0.555	0.567	0.638
Cable weight, lb/ft	0.097	0.115	0.117	0.156
Minimum bending radius, in	7.7	8.3	8.5	9.6
Maximum rated design tension, lb	<b>4496</b>			
Crush	228 lb/in (0.4 kN/cm)			
Fiber count, up to	48 (4x12)	72 (6x12)	96 (4x24)	144 (6x24)
Cable diameter, in	0.638	0.665	0.669	0.693
Cable weight, lb/ft	0.171	0.182	0.185	0.19
Minimum bending radius, in	9.6	10	10	10.4

**Ordering Information for Outdoor Fiber Optic Cables**

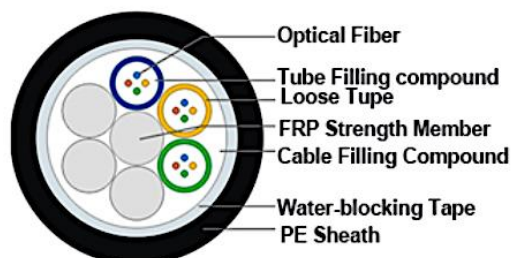
<b>Cable Description</b>	<b>P/N</b>	<b>Fiber Type</b>	<b>Jacket Type</b>	<b>Fiber/Core Number</b>
Stranded Loose Tube Cable with Steel Tape.	TFC/OSLS	OS1, OS2, G652D, G655C, G657A1.  OM1, OM2, OM3, OM4, OM5	LSZH, PE	Up to 244 Fiber, depends on Cable Type
Stranded Loose Tube Cable with Aluminium.	TFC/OAL			
Figure 8 Fiber Optic Cable.	TFC/OF8			
Armoured Fiber Optic Cable- Figure 8.	TFC/OARF8			
Aerial Self-supporting Armoured Figure 8 Cable.	TFC/OASSAF8			
Aerial ADSS Fiber Optic Cable.	TFC/OAADS			
Outdoor Duct Aerial Uni-tube Light-Armoured Cable.	TFC/OADUA			
Single Layer All-Dielectric Self-Supporting ADSS Optical Cable.	TFC/ODSSADS			

# *Indoor Fiber Optic Cabling Solution*



## Non-Armoured Stranded Loose Tube Cable

Non-armoured loose tube fiber optic cable that comes with a Fiberglass Reinforced Plastic (FRP) central strength member which can contain up to a maximum of up to 24 water-blocking gel-filled tubes. Each tube can contain up to a maximum of 12 fibers. This cable comes with a layer of water blocking tape to prevent water penetration and PE outer jacket.



Fiber Type	Single Mode	G652D, G655C, G657A1, 50/125, 62.5/125
	Multi-Mode	OM1, OM2, OM3, OM4

**Application** Aerial/Duct/Outdoor.

### Features

- Suitable for use on distribution and high voltage transmission lines with mini spans or self-supporting installation for telecommunication.
- Track -Resistant outer jacket available for the high voltage.
- Line where space potentials up to 35KV.
- Gel-Filled buffer tubes are S-Z stranded.
- Instead of Aramid yarn or glass yarn, there is no support or messenger wire required.
- Aramid yarn is used as the strength member to assure the tensile and strain performance for mini span (usually below 150 meters).
- The fiber counts from 2-288 fibers.

### Temperature Range

Operating: -40°C to +70°C.

Storage: -40°C to +70°C.

**Standards** YD/T1258.4-2005 & IEC 60794-2-20/21.

## Multi-Purpose Break-out Fiber Optic Cable A Type

For the multi-core branch cable, it takes several simplex cables (900µm tight-buffered fibre with aramid yarn strength member) as the sub-units which are stranded around the central strength member to form the cable core, then extruded with a PVC sheath. Other sheath materials, like TPU or LSZH, are available on request.



**Application** Connection lines between communication equipment/ Indoor cabling.

### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

### Characteristics

- Excellent script ability with tight-buffered fiber.
- Excellent flame-retardant properties.
- High tensile strength due to aramid strength member.
- Excellent corrosion resistant, waterproof, flame retardant, and environmentally-friendly properties of the outer sheath.

### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

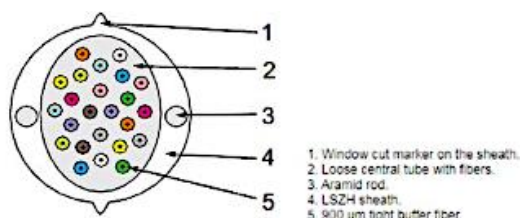
**Standards** YD/T1258.4-2005 & IEC 60794-2-20/21.

### Technical Parameters

Fiber Count	Cable Diameter (mm)	Weight	Tensile strength(N)		Crush Resistance (N/100mm)		Minimum bending radius (mm)	
			Short-term	Long-term	Short-term	Long-term	Static	Dynamic
4	7.2±0.4	45.5	200	660	1000	300	10D	20D
6	9.0±0.4	63	200	660	1000	300	10D	20D
8	10.0±0.4	84	200	660	1000	300	10D	20D
12	12.5±0.4	148	200	660	1000	300	10D	20D
24	12.5±0.4	202	400	1320	1000	300	10D	20D

## Micro Tube Drop Riser Fiber optic Cable

Micro Tube Drop Fiber optic Cable is a popular fiber cable. The drop fiber cable uses multiple 900um flame-retardant tight buffer fibers as optical communication medium, two parallel Fiber Reinforced Plastic (FRP) are placed at the two sides as strength member, then the cable is completed with a flame-retardant LSZH (low smoke, zero halogens, flame-retardant) jacket.



**Application:** Used as access building cable in premises distribution system, especially used in indoor or outdoor aerial access cabling/ Adopted to core network/ access network, fiber to the home/ Building to building installation.

### Features

- Fiber type: ITU-T- G652D, G657A fiber, G657B fiber.
- It has good mechanical and environmental performance.
- Flame (or not flame retardant) performance to meet the requirements of the standard.
- Mechanical and physical properties of the sheath to meet the relevant standards Soft, flexible and convenient.
- Good structure design, easy for branching and splicing.
- Small size and light weight, easy for installation.
- LSZH sheath ensuring good flame-retardant performance.
- Especially applicable to vertical wiring in buildings.

**Construction** Dielectric (single & dual jacket).

**Flame Rating** Riser (OFNR / OFCR / FT4).

**Fiber Count** 12(6x2f), 16(8x2f), 24(12x2f), 36(18x2f), 48(24x2f), 72(36x2f) and 96(48x2f).

**Fiber Type** Single-mode (ESMF, bend-insensitive).

### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

**Standards** YD/T1258.4-2005 & IEC 60794-2-20/21.

**Transmission Characteristics: G657A2**

Characteristics	Conditions	Specified Values	Units
Geometrical characteristics			
Cladding diameter		125.0±0.7	μm
Cladding non-circularity		≤0.7	%
Coating diameter		242±5	μm
Coating/cladding concentricity error	<12	μm	
Core/cladding concentricity error	≤0.5	μm	
Curl	≥4	m	
Optical characteristics			
Attenuation	1310nm	≤0.4	dB/km
	1383nm	≤0.4	dB/km
	1490nm	≤0.3	dB/km
	1550nm	≤0.3	dB/km
	1625nm	≤0.3	dB/km
Attenuation vs. Wavelength			
max. A difference	1285~1330nm	≤0.03	MHz*km
	1525~1575nm	≤0.02	MHz*km
Dispersion coefficient	1550nm	≤18	ps/(nm*km)
	1625nm	≤22	ps/(nm*km)
Zero dispersion wavelength		1304~1324	nm
Zero dispersion slope		≤0.092	ps/(nm <sup>2</sup> *km)
Polarization mode dispersion			
PMD maximum individual fiber		≤0.1	ps/km <sup>1/2</sup>
PMD design link value		≤0.04	ps/km <sup>1/2</sup>
Cable cut off wavelength		≤1260	nm
Mode field diameter	1310nm	8.8~9.6	μm
	1550nm	9.9~10.9	μm
Group index of refraction	1310nm	1.4691	
	1550nm	1.4696	
Environmental characteristics			
Temperature cycling	-60°C to +85°C	≤0.05	dB/km
Temperature-humidity cycling	-10°C to +85°C 4% to 98% RH	≤0.05	dB/km
Water immersion	23°C, 30 days	≤0.05	dB/km
Dry heat	85°C, 30 days	≤0.05	dB/km
Damp heat	85°C, 85%RH, 30 days	≤0.05	dB/km
Mechanical specification			
Proof test	≥100	kpsi	
Macro bending induced loss			
1Turns @10mm Radius	1550nm	≤0.5	dB
1Turns @10mm Radius	1625nm	≤1.5	dB
10Turns @15mm Radius	1550nm	≤0.05	dB
10Turns @15mm Radius	1625nm	≤0.30	dB
100Turns @25mm Radius	1310&1550&1625 nm	≤0.01	dB
Dynamic stress corrosion susceptibility parameter		20	

## Single mode Multimode Breakout bundle distribution Indoor Fiber Optic Cable

This fiber optic cable has two primary applications. A majority of indoor cable is used in building wiring applications. Installed in walls, between floors, in plenum air handling ducts and under data centre floors.



### Application

- Used as access building cable.
- Used as interconnect lines of equipment, and used in optical connections in optical communication rooms and optical distribution frames.
- Indoor cabling.
- Suitable for patch cord and pigtails, indoor distribution.
- Distribution system cable.

### Features

- Flame retardant characteristics meet the requirements of relevant standards.
- Excellent temperature performance.
- Soft and easy to strip.
- High strength Kevlar yarn member.
- Small bending radius.
- Meet various requirements of market and clients.

**Fiber type** G652, G655 or G657 single-mode fiber, A1a or A1b multi-mode cable, or other types of fiber.

**Jacket material** environmental flame-retardant polyvinylchloride (PVC), environmental low smoke zero halogen flame retardant polyolefin (LSZH), environmental halogen flame-retardant polyolefin (ZRPO), environmental thermoplastic polyurethane (TPU), or other contracted material.

**Jacket colour** (including colour of fiber) meets the requirement of relevant standard, or another contracted colour.

**Cable dimension** the nominal cable dimension, or other contracted dimension.

### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

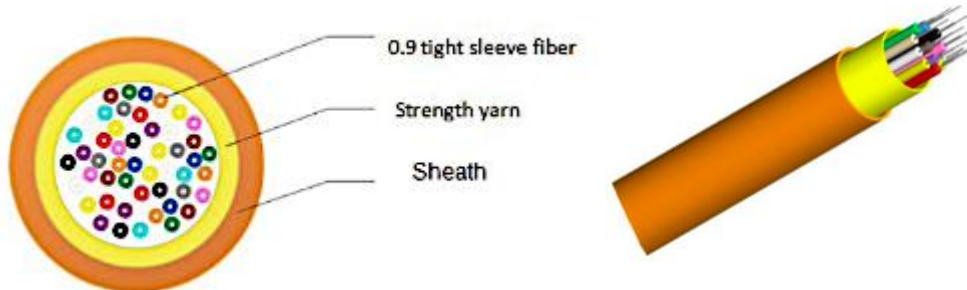
**Standards** YD/T1258.4-2005 & IEC 60794-2-20/21.

**Technical Parameters**

Fiber core number	OD	weight kg/km	Tensile Loading Test		Repeated Bending		Crush Resistance Test
	mm		Short-tensile load	Long-tensile load	developments mm	static mm	N/100mm <sup>2</sup>
			N	N			
12	3	7.8	150	80	30D	15D	500
24	9	72	300	160	30D	15D	1000
48	9	79	600	200	30D	15D	1000
72	11.2	126	1000	300	30D	15D	1000
96	13.5	178	1000	300	30D	15D	1000
144	17.5	285	1000	300	30D	15D	1000

## Bundle Indoor Fiber Cable

SM & MM Indoor fiber optic cable has two primary applications. A majority of indoor cable is used in building wiring applications. Installed in walls, between floors, in plenum air handling ducts and under data centre floors.



### Application

- Used as access building cable.
- Used as interconnect lines of equipment, and used in optical connections in optical communication rooms and optical distribution frames.
- Indoor cabling.
- Suitable for patch cord and pigtails, indoor distribution.
- Distribution system cable.

### Features

- Flame retardant characteristics meet the requirements of relevant standards.
- Excellent temperature performance.
- Soft and easy to strip.
- High strength Kevlar yarn member.
- Small bending radius.
- Meet various requirements of market and clients.

### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

**Standards** YD/T1258.4-2005 & IEC 60794-2-20/21.

## Technical Parameters

Fiber core number	OD	weight	Tensile Loading Test		Repeated Bending		Crush Resistance Test
	mm		kg/km	Short-tensile load	Long-tensile load	developments	static
		N		N	mm		
4	4.8	19	270	90	20D	10D	1000
6	5.2	23	330	110	20D	10D	1000
8	6.2	29	480	160	20D	10D	1000
12	6.8	38	600	200	20D	10D	1000
14	7.4	48	660	220	20D	10D	1000
24	8.2	60	1200	240	20D	10D	1000
48	12.5	128	720	400	20D	10D	1000

**Fiber type** G652, G655 or G657 single-mode fiber, A1a or A1b multi-mode cable, or other types of fiber.

**Jacket material** environmental flame-retardant polyvinylchloride (PVC), environmental low smoke zero halogen flame retardant polyolefin (LSZH), environmental halogen flame-retardant polyolefin (ZRPO), environmental thermoplastic polyurethane (TPU), or other contracted material.

**Jacket colour** (including colour of fiber) meets the requirement of relevant standard, or another contracted colour.

**Cable dimension** the nominal cable dimension, or other contracted dimension.



## Multi Core Branch Indoor Optical Cable

Indoor fiber optic cable has two primary applications. A majority of indoor cable is used in building wiring applications. Installed in walls, between floors, in plenum air handling ducts and under data centre floors.



### Application

- Used as access building cable.
- Used as interconnect lines of equipment, and used in optical connections in optical communication rooms and optical distribution frames.
- Indoor cabling.
- Suitable for patch cord and pigtails, indoor distribution.
- Distribution system cable.

### Features

- Flame retardant characteristics meet the requirements of relevant standards.
- Excellent temperature performance.
- Soft and easy to strip.
- High strength Kevlar yarn member.
- Small bending radius.
- Meet various requirements of market and clients.

### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

**Standards** YD/T1258.4-2005 & IEC 60794-2-20/21.

### Technical Parameters

Fiber core number	OD	weight kg/km	Tensile Loading Test		Repeated Bending		Crush Resistance Test
	mm		Short-tensile load	Long-tensile load	developments	static	N/100mm <sup>2</sup>
			N				
4	7.5	51	660	200	20D	10D	1000
6	9	68	700	200	20D	10D	1000
8	10.5	88	800	250	20D	10D	1000
12	12.5	128	1200	400	20D	10D	1000
24	15.5	198	1200	400	20D	10D	1000
48	20.5	246	1800	600	20D	10D	1000

## Indoor Flat Fiber Ribbon Fiber Optic Cable

Flat ribbon cable uses fiber ribbon as optical transmission medium, covered with aramid yarn as strength member, then extruded with a PVC sheath. Other sheath materials, like LSZH and TPU, are available on request.



### Application

- Ribbon fibre flexible connection jumper.
- Various indoor cabling solutions. Especially used in good laying conditions.
- Interconnection between apparatuses.

### Features

- Excellent strip ability with tight buffered fiber.
- Excellent flame-retardant properties.
- High tensile strength due to aramid strength member.
- Excellent corrosion resistant, waterproof, flame retardant and Environmental-friendly properties of the outer sheath.

### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

Standards YD/T1258.4-2005 & IEC 60794-2-20/21.

### Technical Parameters

Fiber Counts	Cable Diameter (mm)	Weight (kg/km)	Tensile strength (N)	Crush Resistance (N/100mm)				Minimum bending radius (mm)	
			Short-term	Long-term	Short-term	Long-term	Static	Dynamic	
2	2.5*3.5	7.3	200	80	500	200	30	50	
4	2.5*3.5	7.4	200	80	500	200	30	50	
6	2.5*4.0	8.2	200	80	500	200	30	50	
8	2.5*4.5	9.3	200	80	500	200	30	50	
12	2.5*5.0	10	200	80	500	200	30	50	

### Distribution Fiber Optic Cable Type A

Distribution cable uses several 900µm or 600µm tight buffered fibers as fiber optic transmission medium, covered with aramid yarn as strength member, then extruded with a PVC sheath. Other sheath materials, like LSZH, PVC and TPU, are available on request.



**Application** Multi-core fiber flexible connector/ Indoor cabling.

#### Features

- Excellent strip ability with tight buffered fiber.
- Excellent flame-retardant properties.
- High tensile strength due to aramid strength member.
- Excellent corrosion resistant, waterproof, flame-retardant and Environmental-friendly properties of the outer sheath.

#### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

**Standards** YD/T1258.4-2005 & IEC 60794-2-20/21.

#### Technical Parameters

Fiber Counts	Cable Diameter(mm)	Weight	Tensile strength(N)		Crush Resistance(N/100mm)		Minimum bending radius (mm)	
			Short-term	Long-term	Short-term	Long-term	Static	Dynamic
4	5.2±0.4	16.2	130	440	1000	300	60	30
6	5.5±0.4	20	130	440	1000	300	60	30
8	6.2±0.4	26	130	440	1000	300	60	30
12	6.5±0.4	31.5	200	660	1000	300	60	30
24	8.2±0.4	50.5	200	660	1000	300	60	30
36	9.0±0.4	70.5	200	660	1000	300	60	30
48	10.5±0.4	88.5	200	660	1000	300	60	30

### Duplex Flat Fiber Optic Cable

The duplex flat cable uses two 900µm or 600µm tight buffered fibers as fiber optic transmission medium, covered with Kevlar aramid yarn as strength member while each fibre extruded with a PVC inner sheath, then extruded with a flat PVC outer sheath. Other sheath materials, like LSZH and TPU, are available on request.



#### Application

- Duplex fiber flexible connection jumper or pigtail.
- Indoor riser level and plenum level cabling.
- Instruments communication equipment interconnection.

#### Features

- Excellent strip ability with tight buffered fiber.
- Excellent flame-retardant properties.
- High tensile strength due to aramid strength member.
- Excellent corrosion resistant, waterproof, flame retardant and Environmental-friendly properties of the outer sheath.

#### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

Standards YD/T1258.4-2005 & IEC 60794-2-20/21.

#### Technical Parameters

Cable Diameter(m m)	Inner Jacket diameter(m m)	Weight(kg/k m)	Tensile strength(N)		Crush Resistance(N/100m m)		Minimum bending radius (mm))	
			Short-term	Long-term	Short-term	Long-term	Static	Dynamic
3.0*5.0	1.8	56	300	800	1000	500	60	30
3.2*5.6	2	65	300	800	1000	500	60	30
4.0*7.0	3	88	300	800	1000	500	60	30

### Simplex Fiber Optic Cable

The Simplex cable uses single 900µm or 600µm tight buffered fiber as fiber optic transmission medium, covered with aramid yarn as strength member, then extruded with a PVC sheath. Other sheath materials, like LSZH and TPU, are available on request.



#### Application

- Terminated with various types of connectors.
- As pigtail of communication equipment.
- Suitable for communication equipment served.

#### Features

- Excellent strip ability with tight buffered fiber.
- Excellent flame-retardant properties.
- High tensile strength due to aramid strength member.
- Excellent corrosion resistant, waterproof, flame retardant and.
- Environmental- friendly properties of the outer sheath.

#### Temperature Range

Storing temperature: -20°C to +60°C.

Operating temperature: -20°C to +60°C.

Standards YD/T1258.4-2005 & IEC 60794-2-20/21.

#### Technical Parameters

Cable Diameter (mm)	Tight Buffer diameter (mm)	Weight (kg/km)	Tensile strength(N)		Crush Resistance		Minimum bending radius (mm)	
			Short-term	Long-term	Short-term	Long-term	Static	Dynamic
1.6±0.2	0.6	2.5	100	60	100	500	60	30
1.8±0.2	0.6	3.5	100	60	100	500	60	30
3.0±0.2	0.9	8	100	60	100	500	60	30

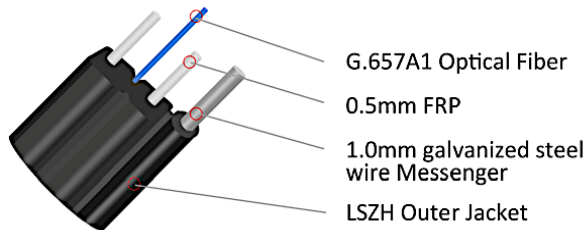
## Ordering Information for Outdoor Fiber Optic Cables

Cable Description	P/N	Fiber Type	Jacket Type	Fiber/Core Number
Non-Armoured Stranded Loose Tube Cable	TFC/INARSL	OS1, Os2, G652D, G655C, G657A1.  OM1, OM2, OM3, OM4, OM5	<b>LSZH, PVC</b>	Up to 244 Fiber
Break-out Fiber Optic Cable	TFC/IBO			
Micro Tube Drop Riser Fiber Optic Cable	TFC/IMTDR			
Breakout bundle distribution Indoor Fiber Optic Cable	TFC/IBOBD			
Bundle Indoor Fiber Cable	TFC/IB			
Multi Core Branch Indoor Optical Cable	TFC/IMB			
Indoor Flat Fiber Ribbon Fiber Optic Cable	TFC/IFR			
Distribution Fiber Optic.	TFC/ID			
Duplex Flat Fiber Optic Cable.	TFC/IFDX			
Simplex Fiber Optic Cable.	TFC/ISX			

# *Fiber Cables to The Home Solutions (FTTH)*

## 1-12 Core Outdoor FTTH Drop Cable with LSZH Jacket

FTTH Drop Fiber Optic Cable is used inside buildings or houses. In the centre of the cable is the optical communication unit, with the two parallel non-metallic enhanced FRP/ Metal/ KFRP as the strength member, and surrounded with the LSZH jacket for outdoor use.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

### Application

- Internal FTTH applications horizontal and riser.
- Clipping to surfaces including skirting boards.
- Short distance external use with black LSZH jacket.

### Features

- Drop Cable adopts the slight bending resistant fiber B6, ensure data transmission.
- Small size, light weight, simple structure, easy to strip for its special groove design and no need any tool, easy to install.
- Two parallel phosphate steel wires as strength members have excellent crush and tensile resistance.
- Self-supporting steel wire strength component withstands most part of tension.
- Low smoke, non-halogen flames retardant outer sheath material.

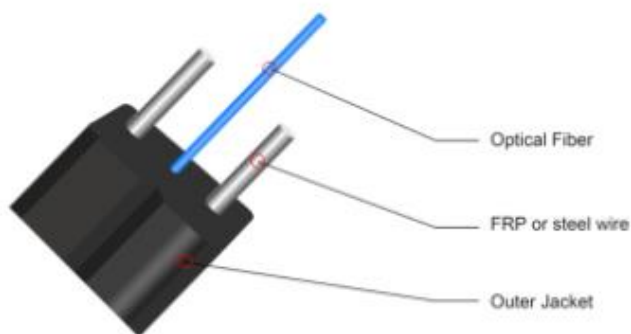
**Temperature Range** Operating Temperature: -20~+ 50°C.

**Standard** YD/T 1997-2009, ICEA-596, GR-409, IEC 60794.



## 1-12 Core Indoor/Outdoor FTTH Drop Cable FRP KFRP Steel Wire

The typical bow-type drop optical cable includes central optical fibers with 2 parallel KFRPs or steel wire as the strength members placed on both sides, a LSZH or PVC sheath is extruded outside.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

### Application

- All types of fiber cables with different structures.
- High performance optical network operating.
- High speed optical routes in buildings (FTTX).

### Feature

- Simple structure, light weight, high tensile strength.
- Novel groove design, easily strip and splice, simplified installation and maintenance.
- Low smoke zero halogen and flame-retardant sheath, environment-friendly, good safety.

### Temperature Range

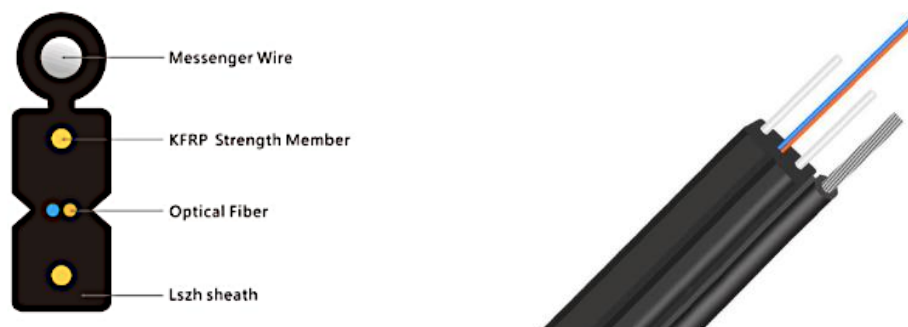
Operating: -20°C to 60°C.

Storage: -20°C to 60°C.

**Standards** YD/T1997-2009.

## Outdoor FTTH Self-supporting Drop Cable With 7 Stranded Steel Wire

The typical self-supporting bow-type drop fiber optic cable consists of GJXFH/GJXH cable and an additional strength member with steel wire.



Fiber Type	Single Mode	G652D, G655C, G657A1, 50/125, 62.5/125
------------	-------------	--

**Messenger** 0.5, 1.0, 1.2mm Optional.

**Strength Member:** Steel Wire, FRP, KFRP.

**Jacket:** PVC/LSZH.

**Colour:** Black /Grey/White.

**Application** Outdoor; Self-supporting.

- High-performance optical network operating.
- High-speed optical routes in buildings (FTTX).
- All types of fiber cables with different structures.

### Temperature Range

Operating: -20°C to 60°C.

Storage: -20°C to 60°C.

### Characteristic

- Novel groove design, easily strip and splice, simplified installation and maintenance, higher tensile strength.
- Suitable as cable extending from outdoor (as aerial cable) to indoor.
- Low smoke zero halogens and flame-retardant sheath, environment-friendly, good safety.

**Standards** YD/T1258.2-2003 & IEC 60794-2-10/1.

### Cable Parameters

Fiber Count	Specifications (mm)	Weight (kg/km)	Tensile(N)		Crush(N)		Bending Radius(mm)	
			Long-term	Short-term	Long-term	Short-term	Static	Dynamic
1, 2, 4	2.0×5.0	18.1	100	200	1000	2200	15	30
1, 2	1.6×3.7	15.2	100	200	1000	2200	15	30
4	2.0×6.0	18.2	100	200	1000	2200	15	30
1, 2, 4	2.0×5.0	13.5	40	80	500	1000	15	30
1, 2	1.6×3.7	17.0	40	80	500	1000	15	30
4	2.0×6.0	17.1	40	80	500	1000	15	

## Outdoor FTTH Fiber Drop Cable with Steel Wire

FTTH outdoor fiber optic cable are used inside buildings or houses. In the centre of the cable is the optical communication unit, with the two parallel non-metallic enhanced FRP/Metal/KFRP as the strength member, and surrounded with the LSZH jacket.



Fiber Type	Single Mode	G652D, G655C, G657A1, 50/125, 62.5/125
	Multi-Mode	OM1, OM2, OM3, OM4

### Application

- Internal FTTH applications horizontal and riser.
- Clipping to surfaces including skirting boards.
- Short distance external use with black LSZH jacket.

### Features

- Bow Type Drop Cable adopts the slight bending resistant fiber B6, ensure data transmission.
- Small size, light weight, simple structure, easy to strip for its special groove design and no need any tool, easy to install.
- Two parallel phosphate steel wires as strength member have excellent crush and tensile resistance.
- Self-supporting steel wire strength component withstands most part of tension.
- Low smoke non-halogen flames retardant outer sheath material.

**Temperature Range** Operating Temperature: -20~+ 50°C.

**Standard** YD/T 1997-2009, ICEA-596, GR-409, IEC 60794.

## Flat Fiber Optic Drop Cable FRP PE Sheath.

PE Sheath FRP Flat Drop Cable possesses high tensile strength and flexibility in compact cable sizes. At the same time, it provides excellent optical transmission and physical performance.



**Application** Indoor.

### Construction

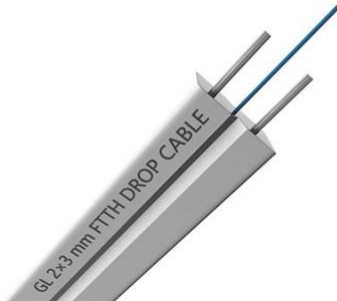
- Outer jacket HDPE.
- 2mm/ 1.5mm FRP.
- Fiber single mode G657A1/ G657A2.
- Size 4.0\*7.0mm/ 4.3\*8.0mm.
- PBT Loose tube.
- Filling Gel.

### Specification

Fiber count	1
Max. No of loose tube	1
Fiber No. per tube	1
Loose tube diameter	2.0mm
Strength member	FRP
Size of Strength member	1.2mm/ 1.5mm
Cable OD mm	4.0*7/ 4.3*8.0mm
Jacket	PE
Net weight	40KG/KM
Operation temperature range	-20 d°C to + 60 °C
Installation temperature range	-0 °C to + 60 °C
Transport and storage temperature range	-20 °C to + 60 °C
Max. allowable tension	≤2400N
Min. allowable tension	≤1600
Crush resistance test	≤4000
Cable marking	As required

## 1-12 Core Indoor FTTH Drop Cable FRP KFRP Steel Wire

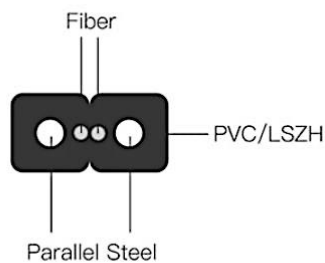
The optical fiber unit is positioned in the centre. Two parallel Fiber Reinforced member steel wire are placed at the two sides. A steel wire as the additional strength member is also applied. Then the cable is completed with a black or colour LSZH sheath.



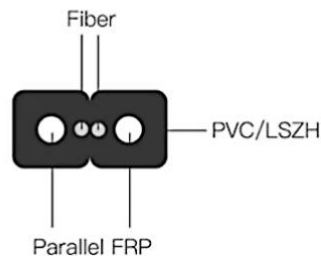
### Features

- Special low-bend-sensitivity optical fiber, providing greater bandwidth and enhanced network transmission characteristics.
- Two parallel FRP strength members ensure good performance of crush resistance to protect fiber.
- Simple structure, light weight and strong practicality.
- Novel flute design, easily strip and splice, simplify the installation and maintenance.
- Low smoke zero halogen and flame-retardant sheath.

#### 2 Steel Wire INDOOR



#### 2 FRP INDOOR

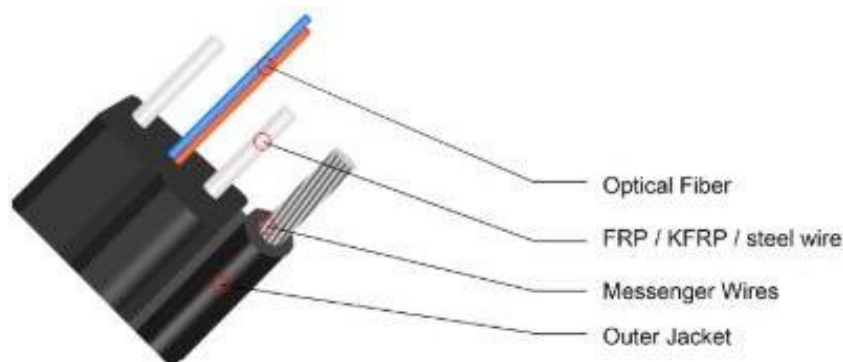


### Technical Parameter

Fiber core number	OD mm	weight kg/km	Tensile Loading Test		Repeated Bending		Crush Resistance Test N/100mm <sup>2</sup>
			Short-tensile load N	Long-tensile load N	developments mm	static mm	
	1	2.0*3.0	8.5	80	40	30D	
2	2.0*3.0	8.5	80	40	30D	15D	1100
4	2.0*3.0	10	80	40	30D	15D	1100

## Outdoor FTTH Drop Cable With 7 Stranded Steel Wire

FTTH outdoor fiber optic cable are used inside buildings or houses. In the centre of the cable is the optical communication unit, with the two parallel non-metel enhanced FRP/Metal/KFRP as the strength member, and surrounded with the LSZH jacket.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

### Application

- Internal FTTH applications horizontal and riser.
- Clipping to surfaces including skirting boards.
- Short distance external use with black LSZH jacket.

### Features

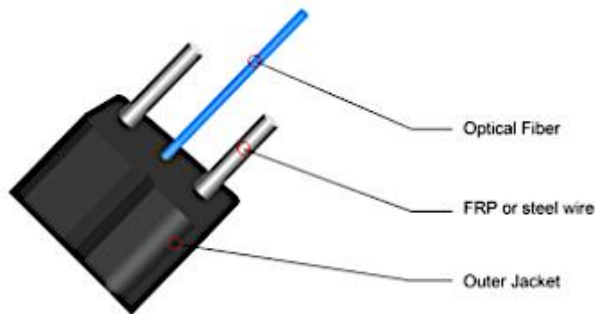
- Bow Type Drop Cable adopts the slight bending resistant fiber B6, ensure data transmission.
- Small size, light weight, simple structure, easy to strip for its special groove design and no need any tool, easy to install.
- Two parallel phosphate steel wires as strength member have excellent crush and tensile resistance.
- Self-supporting steel wire strength component withstands most part of tension.
- Low smoke non-halogen flames retardant outer sheath material.

**Temperature Range** Operating Temperature: -20~+ 50°C.

**Standard** YD/T 1997-2009, ICEA-596, GR-409, IEC 60794.

## Indoor FTTH Drop Fiber Optical Cable 1~12core

The typical bow-type drop optical cable includes central optical fibers with 2 parallel KFRPs or steel wire as the strength members placed on both sides, a LSZH or PVC sheath is extruded outside.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

### Application

- All types of fiber cables with different structures.
- High performance optical network operating.
- High speed optical routes in buildings (FTTX).

### Features

- Simple structure, light weight, high tensile strength.
- Novel groove design, easily strip and splice, simplified installation and maintenance.
- Low smoke, zero halogen and flame-retardant sheath, environment-friendly, good safety.

### Temperature Range

Operating: -20°C to 60°C.

Storage: -20°C to 60°C.

**Standards** YD/T1997-2009.

## FTTH Duct Drop Cable

This drop cable is designed for duct installation in FTTH project connecting. The optical fiber unit is positioned in the centre. 2 parallel strength members are placed at two sides. The cable is with a jacket to become FTTH Drop Cable. Then FTTH Drop Cable is completed with waterproof tape, AL-plastic tape and outer jacket.



The fiber optic cable consists of a bundle of glass threads (fiber core), each of which is capable of transmitting messages modulated onto light waves. featured with the following advantages compared with traditional copper cable: Fiber optic cables have a much greater bandwidth to carry data than copper cables. Fiber optic cables are less susceptible than copper cables to interference. Fiber optic cables are much thinner and lighter than copper wires.

### Application

- Used in aerial and duct access cabling.
- Installation in small bending environment.
- Suitable for the connection between indoor and outdoor.

### Feature

- Ideal for duct application in FTTH project.
- Environmental protection- Low smoke zero halogen and flame-retardant sheath.
- Special low-bend-sensitivity fiber provides high bandwidth and excellent communication transmission property.
- Soft and flexible, good bending performance.

### Temperature Range

Operating: -20°C to 60°C.

Storage: -20°C to 60°C.

**Standards** YD/T1997-2009.



**Transmission Characteristics**

G.652	G.655	50/125 $\mu$ m	62.5/125 $\mu$ m		
Attenuation (+20°C)	@850nm			$\leq 3.0$ dB/km	$\leq 3.0$ dB/km
	@1300nm			$\leq 1.0$ dB/km	$\leq 1.0$ dB/km
	@1310nm	$\leq 0.36$ dB/km	$\leq 0.40$ dB/km		
	@1550nm	$\leq 0.22$ dB/km	$\leq 0.23$ dB/km		
Bandwidth (Class A)	@850nm			$\geq 500$ MHz·km	$\geq 200$ MHz·km
	@1300nm			$\geq 1000$ MHz·km	$\geq 600$ MHz·km
Numerical Aperture				$0.200 \pm 0.015NA$	$0.275 \pm 0.015NA$
Cable Cut-off Wavelength $\lambda_{cc}$		$\leq 1260$ nm	$\leq 1480$ nm		

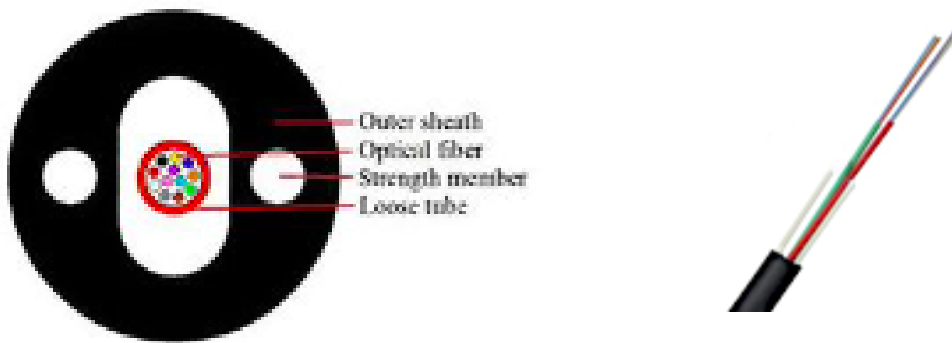
Cable Count	Outside Diameter (mm)	Cable Weight (kg/km)	Tensile Load (N)		Crush Load (N/100mm)		Bend Radius (MM)		Storage Temperature
			short term	long term	short term	long term	short term	long term	
1	7.2	48	600	300	1000	300	30	15	-20°C~+60°C
2	7.2	48	600	300	1000	300	30	15	-20°C~+60°C



# TELUNIX

## Indoor/outdoor Micro-tube 12 cores Fiber optic Cable SM G657A2

Indoor/outdoor Fiber optic cable is a new developed fiber cable which is designed to meet both the harsh environment of outdoors but also can be applied in indoors. The structure of this Cable is to insert 250um coloured optical fibers into a loose tube made of high modulus materials and fill the loose sleeve with waterproof compounds. There are two parallel FRPs are placed at the both sides of the fiber cable. Finally, the fiber cable is extruded with frame-retardant LSZH sheath.



### Application

- This fiber cable is applied in Duct, Aerial FTTx, Access installations.
- Used in access network or as access cable from outdoor to indoor in customer premises network.
- Used as access building cable in premises distribution system, especially used in indoor or outdoor aerial access cabling.

**Fiber type** G657A fiber, G657B fiber

### Features

- Up to 24 fibers.
- Uni-tube gel-filled construction for superior fiber protection.
- Two parallel FRP wire to enhance tensile resistant and protect cable from mechanical damage.
- Designed for use with inexpensive attachment hardware.
- Self-supported no messenger needed.
- Flame-retardant LSZH jacket.
- Small size, Low cost.

### Temperature Range

Operating: -20°C to 60°C.

Storage: -20°C to 60°C.

**Standards** YD/T1997-2009.

No. of cable		12 to 24
Fiber Model		G.657A1
Strength Member	Material	FRP
	Diameter ( $\pm 0.05$ ) mm	1.0
Loose Tube	Material	LSZH
	Diameter ( $\pm 0.05$ ) mm	1.4
	Thickness ( $\pm 0.03$ ) mm	0.15
	The Max. Core NO./Tube	12
Outer Sheath	Material	LSZH
	Thickness ( $\pm 0.1$ ) mm	2.0
Cable Diameter ( $\pm 0.2$ ) mm		7.0
Cable Weight ( $\pm 3$ kg)		36
Min. bending radius	Without Tension	10.0×Cable- $\phi$
	Under Maximum Tension	20.0×Cable- $\phi$
Temperature range (°C)	Installation	-20~+60
	Transport & Storage	-40~+70
	Operation	-40~+70

NO.	Item		Requirement
1	Allowable Tensile Strength	Short Term	600 N
		Long Term	200 N
2	Allowable Crush Resistance	Short Term	1000 (N/100mm)
		Long Term	300 (N/100mm)

## FTTH Indoor 2 Core Fiber Optic Cable Double Fly G652D G657A

Indoor 2 cores fiber optic FTTH Drop cable is used for fiber-to-home application. It is with a relatively small diameter and good flexibility and the outer jacket is generally white LSZH material. The cross-section is in the shape of a figure eight, the reinforcement is located in the centre of the two circles, and the metal or non-metal structure can be chosen.



### Application

- For indoor wiring, end users directly use fiber cables.
- Used for building optical fiber cable.
- It is used for indoor wiring in FTTH.

### Features

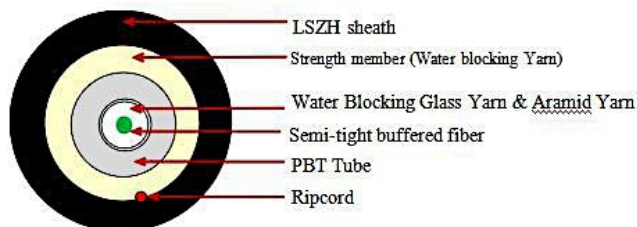
- Strong bending resistance, provide greater bandwidth, and improve network transmission performance.
- Two parallel plastic or metal fiber reinforcement design makes fiber optic cable have good compression resistance.
- The FTTH drop cable has simple structure, light weight and strong practicability.
- The features of FTTH drop cable are unique groove design, easy to peel off, convenient to connect, simplify installation and maintenance.
- Low smoke halogen-free flame-retardant polyethylene sheath or flame-retardant PVC sheath to protect the environment.

### Product Parameter

No. of cable		up to 4	
Fiber Type		G.657A1	
K FRP	Diameter ( $\pm 0.03$ ) mm	0.5	
	NO.	2	
Outer Sheath	Material	LSZH	
	Colour	white	
Cable Diameter ( $\pm 0.2$ ) mm		2.0×3.0	
Cable Weight ( $\pm 2$ ) kg/km			10.0
Attenuation	1310nm	dB/km	0.50
	1550nm		0.40
Allowable Tensile Strength	Short Term	N	80
	Long Term		40
Allowable Crush Resistance	Short Term	N/100mm	2200
	Long Term		1000
Min. bending radius	Without Tension	15.0×Cable- $\phi$	
	Under Maximum Tension	30.0×Cable- $\phi$	
Temperature range (°C)	Installation	-20~+60	
	Transport & Storage	-40~+70	
	Operation	-40~+70	

## 5.0mm Outdoor Drop Cable

This type of 5.0mm Outdoor Drop Cable is very popular in the South American market, mainly used for indoor and outdoor wiring and equipment connection.

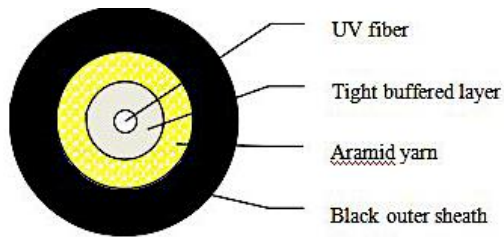


### Cable Constructions

Item	Contents	Value
Colored Fiber	Optical fiber properties	G657A2
	Coloured	Green
	Fiber Number	1
Semi-tight buffered fiber	Material	LSZH
	Colour	Natural or White
	Diameter(mm)	0.90 ± 0.05
Material in 2.0mm PBT tube	Material	Water Blocking Glass Yarn & Aramid Yarn
	Material	PBT
PBT tube	Colour	White or Nature
	Inner diameter(mm)	1.45 ± 0.05
	Outer diameter(mm)	2.1 ± 0.1
	Thickness	0.32 ± 0.05
Strength member and Waterproof (outside PBT tube)	Material	Water blocking Yarn
Ripcord	Breaking force(N)	≤130
Outer jacket	Colour	Black
	Outer diameter(mm)	5.0 ± 0.1
	Thickness(mm)	0.80 ± 0.1
Cable weight(kg/km)		28 ± 5

## 3.0mm Drop Cable TPU Jacket

This type of Drop Cable is very popular in the South American market, mainly used for indoor and outdoor wiring and equipment connection.



Item	Material
outer sheath	Black TPU
Strength member	Aramid yarn
Tight buffered layer	white LSZH
Fiber	Silicon-based fiber (G.657A1)
Cable O.D.	3.0 mm
Cable weight	8.5kg/km

### Mechanical and Environmental Characteristics

Item	Specified Value	Acceptance Criteria
1	Tensile Load	500N
2	Crush	500N/10cm
3	Temperature	-25°C~+60°C
4	Application	Indoor & outdoor

**Ordering Information for Fiber to The Home Solutions (FTTH)**

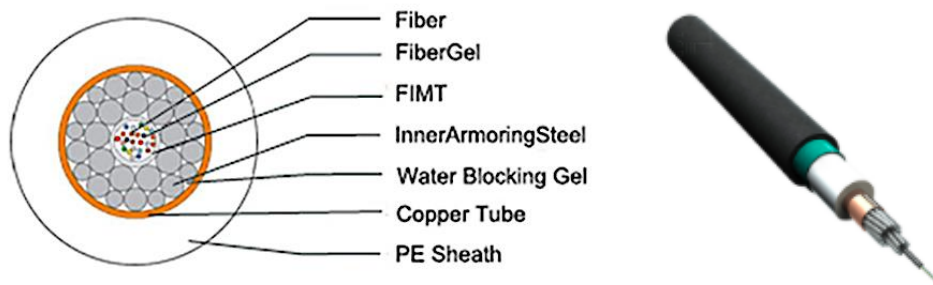
Cable Description	P/N	Fiber Type	Jacket Type	Fiber/Core Number
1-12 Core Outdoor FTTH Drop Cable with LSZH Jacket.	TFC/HOD	OS1, Os2, G652D, G655C, G657A1.  OM1, OM2, OM3, OM4, OM5	LSZH, PE	Up to 244 Fiber
1-12 Core Indoor FTTH Drop Cable FRP KFRP Steel Wire.	TFC/HIDFRS			
Outdoor FTTH Self-supporting Drop Cable With 7 Stranded Steel Wire.	TFC/HODSSS			
Outdoor FTTH Fiber Drop Cable With Steel Wire.	TFC/HODS			
Flat Fiber Optic Drop Cable FRP PE Sheath.	TFC/HODFFR			
1-12 Core Indoor/Outdoor FTTH Drop Cable FRP KFRP Steel Wire.	TFC/HIODFRS			
Outdoor FTTH Drop Cable With 7 Stranded Steel Wire.	TFC/HODSS			
Indoor FTTH Drop Fiber Optical Cable 1~12core.	TFC/HID			
Single Layer All-Dielectric Self-Supporting ADSS Optical Cable.	TFC/ODSSADS			
FTTH Duct Drop Cable.	TFC/HODD			
Indoor/outdoor Micro-tube 12 cores Fiber optic Cable SM G657A2	TFC/HIODMT			
FTTH Indoor 2 Core Fiber Optic Cable Double Fly G652D G657A	TFC/HIDUF			
5.0mm Outdoor Drop Cable.	TFC/HOD5.0MM			
<b>3.0mm Drop Cable TPU Jacket.</b>	TFC/HOD3.0MM			

# *Special Optical Fiber Cabling Solution*



## Unrepeated Submarine Optical Fiber Cable

Submarine Fiber cable, externally wrapped with steel or steel wire, used directly under water, requires resistance to external mechanical damage and strong water pressure.



### Features

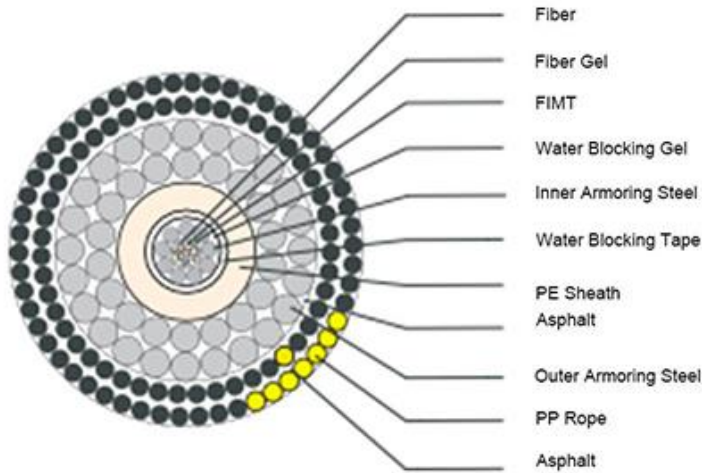
- High strength fiber —ensure stable signal transmission and effective operation life.
- Special water blocking jelly — prevent the ingress of water or hydrogen gas.
- On-line fiber excess control — exact fiber excess in finished cable.
- Customized Cables with different length and specification.
- Stainless steel tube — avoid external damages to optic fiber.

### Main Parameters

Performance	Name	Unit	Standards
			Light armour
Mechanical performance	Ultimate tensile force	KN	80
	Transient tensile load	KN	60
	Working tensile load	KN	32
	Repeated bending	Times	50
	Minimum bend radius	m	0.5
	Impact	N.m	100
	Compressive strength	kN/100mm	10
Physical performance	Outer diameter	mm	23
	Weight in air	kg/km	890
	Weight in sea	kg/km	420
Water permeability	50Mpa, 14d	m	<1000
Electric power	DC resistance	$\Omega$ /km	0.9
	Insulation	M $\Omega$ •km	>10000
	Pressure, 3 minutes	VDC	>15000
Environmental performance	Operating temperature range	$^{\circ}$ C	-10~+50
	Storage temperature range	$^{\circ}$ C	-30~+60

## Submarine Optical Fiber Cable with Steel Wire

Submarine Fiber cable, externally wrapped with steel or steel wire, used directly under water, requires resistance to external mechanical damage and strong water pressure.



### Application

- Long-distance backbone network.
- Urban ring network.
- Access Network, FTTX.
- Relay between communication machine rooms.

### Feature

- 2 ~ 288 cores.
- Steel wire as strength member.
- Loose tube twisted single sheath structure.
- Steel wire armoring.
- Applicable for underwater 100 meters.
- Loose tube material with good hydrolysis resistance and high strength; Flooding jelly compound to ensure critical protection of fiber.
- Compact structure, excellent waterproof performance, excellent mechanical performance and temperature performance.
- Bunched or ribbon fiber.
- SM (G.652D, G.655, G.657.A1, G.657.A2) and MM (OM1, OM2, OM3, OM4) are available.
- PE, LSZH outer jacket material optional.

### Temperature Range

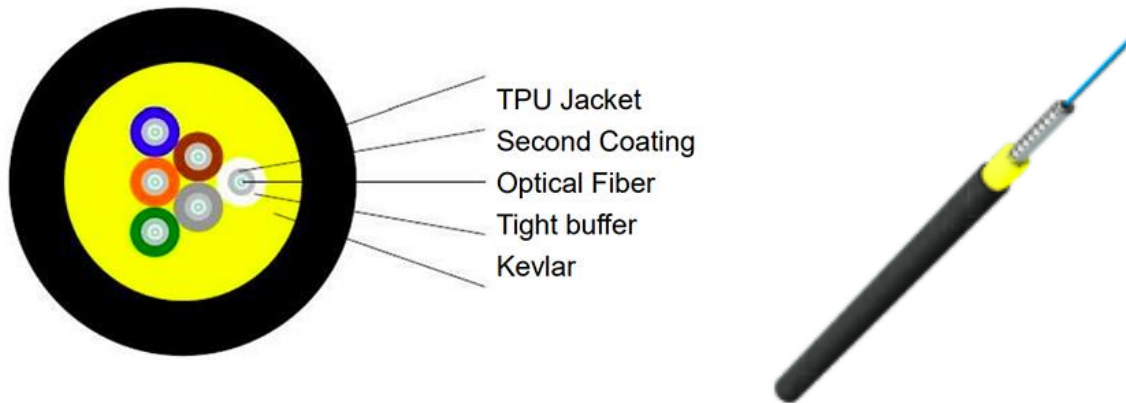
Storage and operation: -40°C ~ +70°C.

Erection: -15°C ~ +60°C.

**Standard** IEC 60794-1-2 F1.

## Tactical Fiber Optic Cable

The Simplex cable uses single 900µm tight buffered fiber as fiber optic transmission medium, covered with aramid yarn as strength member, then extruded with thermoplastic polyurethane sheath. The Polyurethane jacket with an excellent performance of anti-torsion and anti-wear. It can be used and rolled up then used again elsewhere. Even with the rugged environments.



Fiber Type	Single Mode	G652D, G655C, G657A1, 50/125, 62.5/125
	Multi-Mode	OM1, OM2, OM3, OM4 AND OM5

### Application

- Military communication system.
- Coal, oil, natural gas, geological exploration.
- Broadcast television, temporary communication.

### Characteristic

- Flexibility, easy to storage and operation.
- Polyurethane sheath provides Wear resistant, oil resistant, low temperature flexibility.
- Aramid yarn strength with stable tension.
- High tensile and high pressure to prevent rat bite, cutting, bending.
- Cable soft, good toughness, installation, maintenance convenient.

### Temperature Range

Operating: -20°C to 60°C.

Storage: -20°C to 60°C.

**Standards** YD/T1258.2-2003 and IEC 60794-2-10/11.

### Military Communication System Tactical Fiber Optic Cable

The Simplex cable uses single 900µm tight buffered fiber as fiber optic transmission medium, covered with aramid yarn as strength member, then extruded with thermoplastic polyurethane sheath.



#### Application

- Military communication system.
- Coal, oil, natural gas, geological exploration.
- Broadcast television, temporary communication.

#### Characteristic

- Flexibility, easy to storage and operation.
- Polyurethane sheath provides Wear resistant, oil resistant, low temperature flexibility.
- Aramid yarn strength with stable tension.
- High tensile and high pressure to prevent rat bite, cutting, bending.
- Cable soft, good toughness, installation, maintenance convenient.

**Outer Jacket** TPU Jacket.

**Strength Member** Kevlar.

- The Polyurethane jacket with an Excellent performance of anti-torsion and anti-wear.
- It can be used and rolled up then used again elsewhere. Even with the rugged environments.
- This fiber optic cable tight buffered tube cable is used for outdoor video, traffic control etc telecommunication. Also, application for the military mobile.

#### Temperature Range

Operating: -20°C to 60°C.

Storage: -20°C to 60°C.

**Standards** YD/T1258.2-2003 & IEC 60794-2-10/11.

#### Technical Parameter

Fiber counts	Cable diameter (mm)	Weight	Tensile(N)		Crush Resistance (N/100mm)		Minimum Bending Radius (mm)	
			Long-term	Short-term	Long-term	Short-term	Static	Dynamic
2 to 4	5	10	600	400	200	300	60	30
4 to 6	5.2	11.5	600	400	200	300	60	30
10 to 12	6	12.8	600	400	200	300	60	30

### Tactical Fiber Optic Cable with Helical Armoured

The Simplex fiber optic cable uses single 900µm tight buffered Tube structure as fiber optic transmission medium, covered with aramid yarn as strength member, then extruded with thermoplastic polyurethane sheath.



#### Application

- Military communication system.
- Coal, oil, natural gas, geological exploration.
- Broadcast television, temporary communication.
- The Polyurethane jacket with an Excellent performance of anti-torsion and anti-wear. It can be used and rolled up then used again elsewhere. Even with the rugged environments.
- This fiber optic cable tight buffered tube cable is used for outdoor video, traffic control etc telecommunication. Also, application for the military mobile.

#### Characteristic

- Flexibility, easy to storage and operation.
- Stainless steel armored protection for fiber.
- Polyurethane sheath provides Wear-resistant, oil resistant, low-temperature flexibility.
- Aramid yarn strength with stable tension.
- High tensile and high pressure to prevent rat bite, cutting, bending.
- Cable soft, good toughness, installation, maintenance convenient.

**Outer Jacket** TPU Jacket.

**Strength Member** Kevlar and Helical Metal Tube.

#### Temperature Range

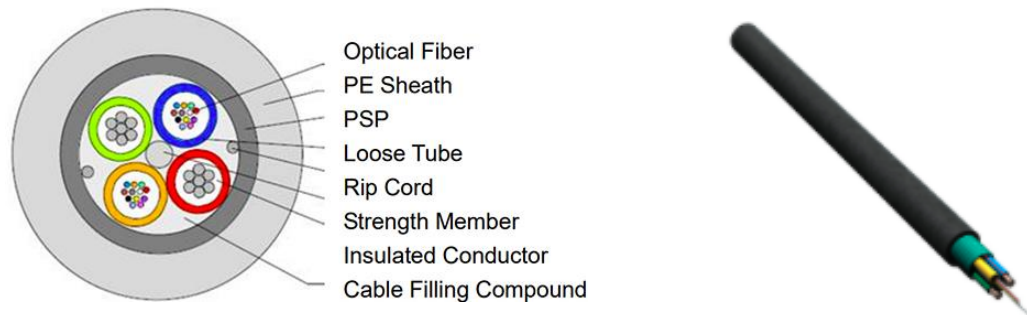
Operating: -20°C to 60°C.

Storage: -20°C to 60°C.

**Standards** YD/T1258.2-2003 & IEC 60794-2-10/11.

### Hybrid Fiber Cable Self-Supporting Composite Optical Cable.

Composite or Hybrid Fiber Optic Cables that have a number of different components laid up within the bundle. These types of cables allow for multiple transmission paths by various components, whether they be metal conductors or fibre optics, and allow the user to have a single cable, therefore reducing the overall cost and lead time for installation.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

#### Application

- Used in outdoor applications that require both optical fiber and copper wire elements for communication and power.
- Copper wire can power remote electronics used in fiber optic communications.
- Copper wire can also be used for low data rate data transmission.
- Deployable cables have been used in network and private broadcast applications around the world.
- Cables can be designed for any custom applications.

#### Feature

- The composite cable provides the equipment electricity and single transmission, and improves central monitoring and maintenance for equipment power.
- To reduce the coordination and maintenance of power supply.
- Combines optical fiber (multimode or single mode) and copper conductor for DC power in a single lightweight aluminium corrugated cable.

**Temperature Range** - 40°C~ +60°C.

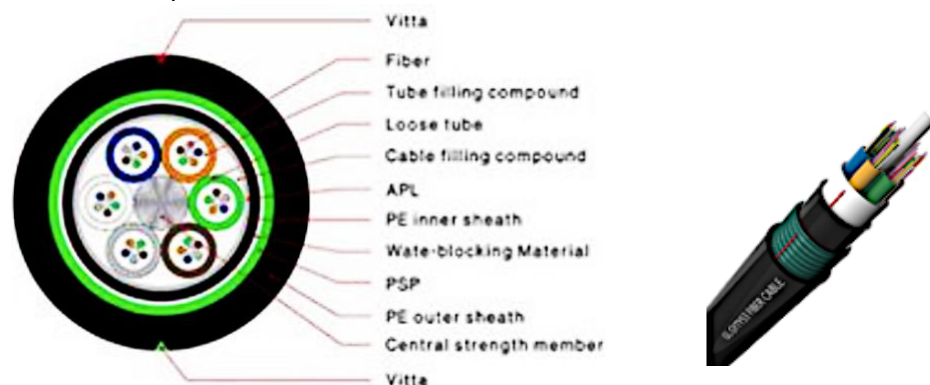
**Standard** ISO9001 & CE.

**Hybrid fiber optic cables Technical Specification**

Fiber Count		2
Optical fiber	Fiber Count	1
	Diameter	2.0mm
	Thickness	0.3mm
	Strength member	Kevlar
	Jacket	PVC
Electricity	Cross sectional area	0.5mm <sup>2</sup>
	Thickness	0.6mm
	Diameter	2.0mm
	Insulating material	Crosslinked polyethylene
	Voltage、 Current	400V,5A
FRP (mm)		1
Colour of Electricity		Yellow
Colour of Optical		Blue、 Red (or as your requirement)
Belting		Polyester belt
Outer jacket :		LSZH (Black)
Outer thickness (mm)		1
Diameter Photoelectric composite (mm)		7.1±0.3mm
Weight kg/km)		45±5
Tension(N)		450

## Armoured Direct Buried Anti Rodent Optical Cable

SM & MM fibers are positioned in the loose tubes for this cable, the tubes are filled with water blocking filling compound. Tubes and fillers are stranded around the strength member into a circular cable core. Then the cable is completed with a PE sheath. Which is filled with the filling compound to protect it. After PSP is applied over the inner sheath, the cable is completed with a PE outer sheath.



**Application** Direct buried.

### Characteristics

- Excellent mechanical and temperature performance.
- Single steel wire used as the central strength Member.
- Special water-blocking filling compound in the loose tube.
- 100% cable core filling, APL and PSP moisture barrier.

### Temperature Range

Storing temperature: -40°C to +70°C.

Operating temperature: -40°C to +70°C.

**Standards** YD/T 901-2009 & IEC 60794-1.

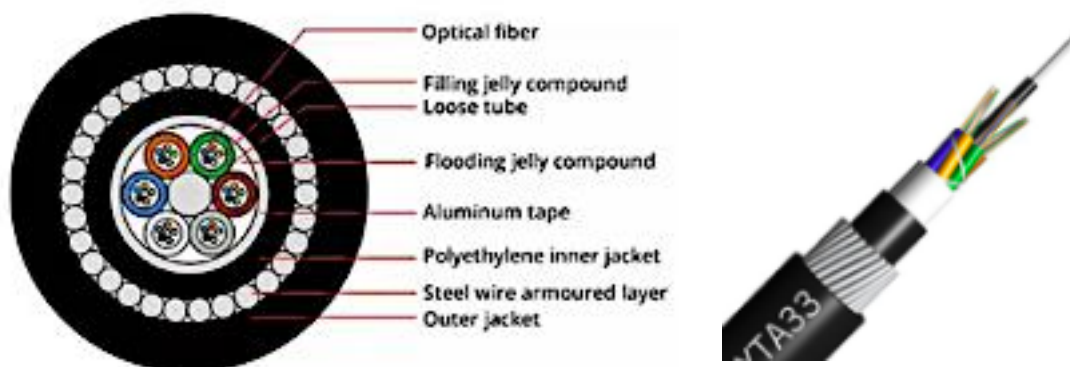
### Technical Parameters

Fiber Count	Tubes +Fillers	Cable Diameter (mm)	Cable Weight (kg/km)	Tensile Strength Long/Short Term N	Crush Resistance Long/Short Term N/100mm	Bending Radius Static/Dynamic mm
2 to 36	6	6	12.6	184	1000/3000	1000/3000
38 to 72	6	12	14	216	1000/3000	1000/3000
74 to 96	8	12	15.7	260	1000/3000	1000/3000
98 to 120	10	12	17.4	301	1000/3000	1000/3000
122 to 144	12	12	19	354	1000/3000	1000/3000



## Anti-rodent 2-144 core Fiber Optic Cable

This Cable Comes with central strength member (steel), jelly filled, fiber contained loose tube and pp filler (if necessary) stranded, water blocking jelly, copolymer coated aluminium tape, PE inner sheath, armored by a layer of steel wires, PE outer sheath. G652d SM fiber.



**Laying modes** direct buried & under-water.

**Applications** Long-distance communication, local trunk line, CATV & computer networks system.

### Feature

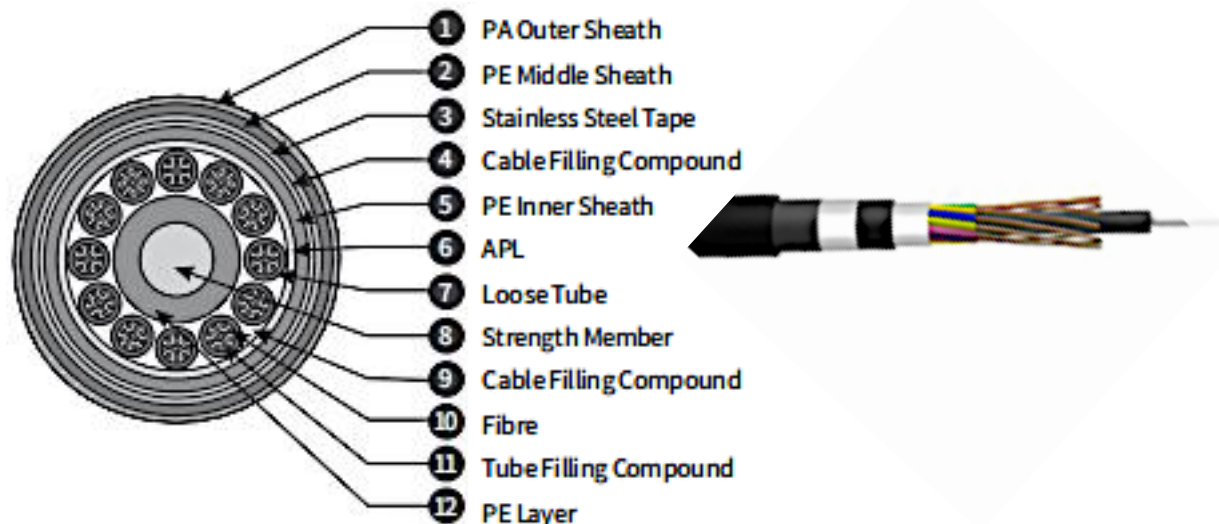
- Direct burial & under-water application.  
Long-distance communication, local trunk line, catv & computer networks system.
- Steel wire armored for anti-rodent.

### Technical Data

Fiber count	2~30	32~36	38~60	62~72	2~36	38~72
CSM/Steel wire (mm)	--/1.5	--/2.0	--/1.8	2.4/1.8	--/2.0	2.4/1.8
Element number	5	6	5	6	6	6
Max. cores in tube	6	6	12	12	6	12
Diameter of inner sheath	8.3	8.8	9.1	9.7	10.5	10.5
Steel wire diameter and No.	Φ1.0/28	Φ1.0/29	Φ1.0/30	Φ1.0/32	Φ1.5/24	Φ1.5/24
Cable diameter approx (mm)	14.3	14.8	15.1	15.7	17.5	17.5
Weight approx (kg/km)	315	328	0.34	360	520	520
Tensile strength (N)	Long term	4000	10000			
Short term	10000	2000				
Crush Resistance(N/100mm)	Long term	3000				
Short term				5000		
Bending Radius (mm)	Dynamic	≥30 ×Dia. Of cable				
Static		≥15×Dia. Of cable				
Operating Temperature (°C)		-40°C ~+ 70°C				
Application		Directly burial and Under water				

## Anti-termite Optical Cable with Double Metallic Armors and Nylon Sheat

Outdoor communication optical cable, which consists of a non-metallic central strength member, stranded loose tubes, a laminated aluminium tape armor, a PE inner sheath, a stainless-steel tape armor, a PE middle sheath and a nylon outer sheath



**Application** Direct Buried, Outdoor, Underground.

### Features

- Accurate process control ensuring good mechanical and temperature performances.
- The material of loose tubes with good hydrolysis resistance and relatively high strength.
- Tube filling compound providing key protection for fibres.
- Excellent crush resistance.
- Metallic armors providing good anti-rodent performance.
- Nylon outer sheath with high hardness providing certain anti-termite performance.
- Applicable to duct and buried installations.

### Environmental Characteristics

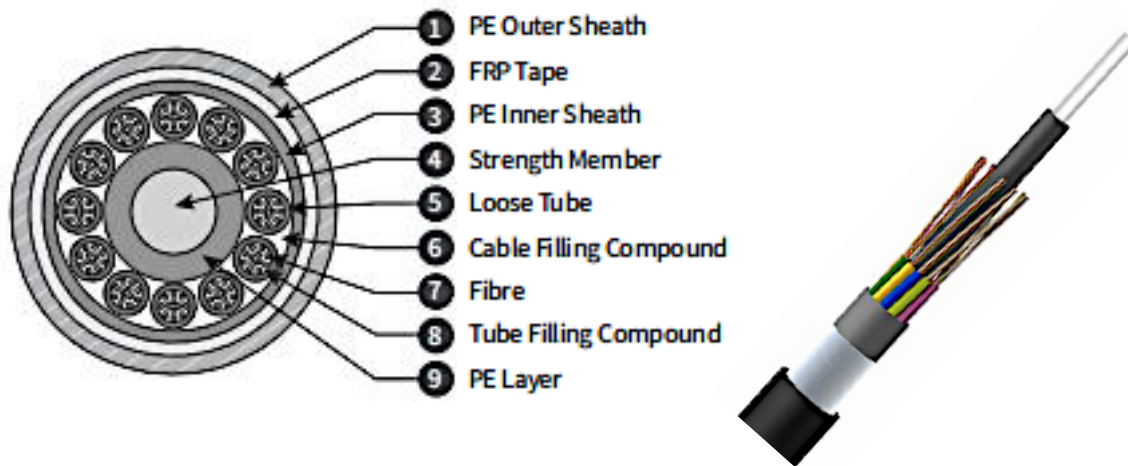
Transport/storage temperature: -40°C to +70°C.

### Technical Characteristics

Units	Cable diameter (mm)	Cable weight (Kg/km)	Tensile strength	Crush	Bending radius
			Long/short term (N)	Long/short term (N/100mm)	Dynamic/static (mm)
6	14.4	225	900/2700	1000/3000	20D/10D
6	15	250	900/2700	1000/3000	20D/10D
6	15	250	900/2700	1000/3000	20D/10D
8	16.8	300	900/2700	1000/3000	20D/10D
12	20	370	900/2700	1000/3000	20D/10D
24	22.4	465	900/2700	1000/3000	20D/10D

## Non-metallic Anti-rodent Optical Cable

Single-mode/multimode fibres are housed in loose tubes that are made of high-modulus plastic. The tubes are stranded around a central strength member to form a cable core. The core is filled with cable filling compound. Then an inner PE sheath is extruded and armored with FRP tape. Finally, a PE outer sheath is extruded.



**Application** Direct Buried, Outdoor, Underground.

### Features

- Physical anti-rodent method, green and environment-friendly.
- Accurate process control ensuring good mechanical and temperature performances.
- The material of loose tubes with good hydrolysis resistance and relatively high strength.
- Tube filling compound providing key protection for fibres.
- FRP tape armor providing good anti-rodent performance.
- All-dielectric design, applicable to lightning-prone areas.
- Applicable to aerial and duct installations with anti-rodent and anti-lightning requirements.

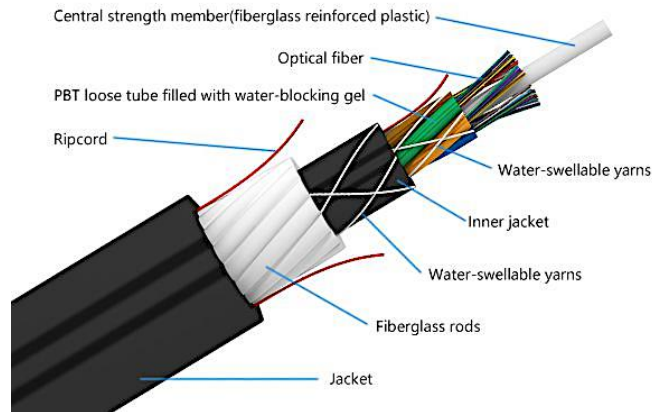
### Environmental Characteristics

Transport/storage temperature: -40°C to +70°C.

Units	Max. fibre count per tube	Diameter (mm)	Cable weight (kg/km)	Tensile strength Long/short term (N)ght (kg/km)	Crush Long/short term (N/100mm)	Bending radius Dynamic/static (mm)
6	12	13.2	132	1000/3000	300/1000	10D/20D

## ADSS Multi-Tube (MT) FiberGlass Rods (FRP) Defender

This design combines enhanced optical reliability with the highest degree of rodent resistance available in an all-dielectric cable. It also can be used as an all-dielectric direct buried cable solution.



**Application** Direct Buried, Outdoor, Underground.

### Features

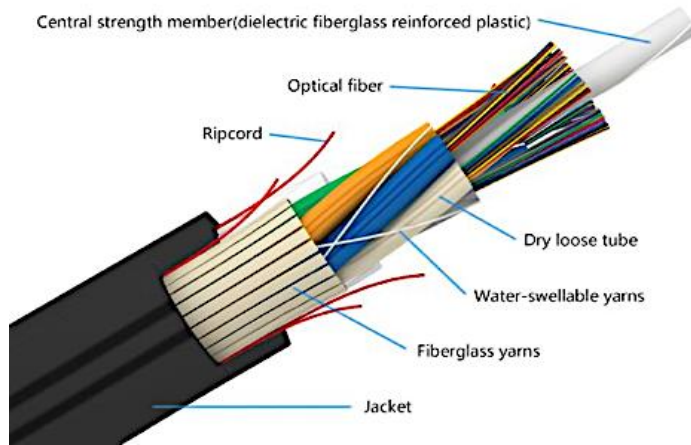
- Anti-rodent additive in the outer jacket for first-line protection.
- Designed for use in Aerial Applications of 138kv or less where damage from squirrels/redent is apparent.
- Superior protection from mechanical damage-FRP roods provide strength and second-line protection.
- Completely protected from water ingress.
- Maximum reted design tension up to 4496 lb.

### Optical Fiber Specifications

Maximum rated design tension, lb	1574			
Crush	228 lb/in (0.4 kN/cm)			
Fiber count, up to	48 (4x12)	72 (6x12)	96 (4x24)	144 (6x24)
Cable diameter, in	0.512	0.555	0.567	0.638
Cable weight, lb/ft	0.097	0.115	0.117	0.156
Minimum bending radius, in	7.7	8.3	8.5	9.6
Maximum rated design tension, lb	3597			
Crush	228 lb/in (0.4 kN/cm)			
Fiber count, up to	48 (4x12)	72 (6x12)	96 (4x24)	144 (6x24)
Cable diameter, in	0.598	0.634	0.638	0.685
Cable weight, lb/ft	0.146	0.164	0.161	0.181
Minimum bending radius, in	9	9.5	9.6	10.3
Maximum rated design tension, lb	4496			
Crush	228 lb/in (0.4 kN/cm)			
Fiber count, up to	48 (4x12)	72 (6x12)	96 (4x24)	144 (6x24)
Cable diameter, in	0.638	0.665	0.669	0.693
Cable weight, lb/ft	0.171	0.182	0.185	0.19
Minimum bending radius, in	9.6	10	10	10.4

## Aerial ADSS Multi-Tube (MT) Fiber Glass Yarns

The most cost-effective solution for use on short and medium spans. It will have a smaller diameter and be lighter compared to a double jacket design. The fiberglass yarn provides a degree of rodent resistance.



### Features

- Maximum rated design tension up to 2248 lb with span lengths up to 656 ft. Reduced weight and size.
- Low susceptibility to ice and wind loads.
- Cost-effective solution for city trunk lines.
- Aerial installation on distribution and transmission lines up to 34.5kv All dielectric design.
- Wide range of operating temperatures, Installation temperature down to -22°F.

**Application** Direct Buried, Outdoor, Underground.

## Optical Fiber Specifications

Maximum rated design tension, lb	450		
Crush	126 lb/in (0.22 kN/cm)		
Fiber count, up to	72 (6x12)	96 (8x12)	144 (12x12)
Cable diameter, in	0.354	0.406	0.516
Cable weight, lb/ft	0.042	0.053	0.087
Minimum bending radius, in	5.3	6.1	7.7
Maximum rated design tension, lb	674		
Crush	126 lb/in (0.22 kN/cm)		
Fiber count, up to	72 (6x12)	96 (8x12)	144 (12x12)
Cable diameter, in	0.39	0.441	0.539
Cable weight, lb/ft	0.051	0.064	0.095
Minimum bending radius, in	5.8	6.6	8.1
Maximum rated design tension, lb	899		
Crush	126 lb/in (0.22 kN/cm)		
Fiber count, up to	72 (6x12)	96 (8x12)	144 (12x12)
Cable diameter, in	0.461	0.539	0.677
Cable weight, lb/ft	0.07	0.092	0.145
Minimum bending radius, in	6.9	8.1	10.2
Maximum rated design tension, lb	1349		
Crush	126 lb/in (0.22 kN/cm)		
Fiber count, up to	72 (6x12)	96 (8x12)	144 (12x12)
Cable diameter, in	0.469	0.539	0.677
Cable weight, lb/ft	0.073	0.095	0.145
Minimum bending radius, in	7	8.2	10.2
Maximum rated design tension, lb	1798		
Crush	126 lb/in (0.22 kN/cm)		
Fiber count, up to	72 (6x12)	96 (8x12)	144 (12x12)
Cable diameter, in	0.48	0.555	0.685
Cable weight, lb/ft	0.079	0.1	0.15
Minimum bending radius, in	7.2	8.3	10.3
Maximum rated design tension, lb	2248		
Crush	126 lb/in (0.22 kN/cm)		
Fiber count, up to	72 (6x12)	96 (8x12)	144 (12x12)
Cable diameter, in	0.496	0.567	0.697
Cable weight, lb/ft	0.086	0.106	0.156
Minimum bending radius, in	7.4	8.5	10.5

## Nylon Sheath Anti Rodent Fiber Optic Cable

Coated nylon jacket provides anti termite performance and with additional glass yarn strength for anti-rodent, idea for the UG Conduit and directly buried in a harsh environment. Central loose tube for 2-36core design with costly cable, single mode 9/125 and multi-mode 50/125 as options.



**Application:** Direct Buried, Outdoor, Underground.

### Technical Parameter

Fiber Count	36	Central strength member Material	FRP
Fiber type	62.5/125	Peripherals Strength member	Corrugated steel armored
Max. No of loose tube	3	Nylon jacket thickness	0.5mm Blue (anti-termite)
Fiber No. per tube	12	Water blocking	Gel filling compound in loose tube & water block tape around cable
Loose tube Material	PBT	Operation temperature range	-40 °C to + 70 °C
Filler Material	PE	Installation temperature range	-40 °C to + 70 °C
Number of filler	2	Transport and storage temperature range	-40 °C to + 70 °C
Inner Sheath Material	MDPE Black	Crush resistance	Short term :3000N/100MM
			Long term: 1100N/100MM
Outer sheath Material	HDPE Black	Minimal installation bending radius	20 x OD
Cable overall diameter	12.2±0.2 mm	Minimal operation bending radius	10 x OD
Cable weight	Approx 86 kg/km	Allowable Tensile Load(N)	3000N



## Anti-Rodent Outdoor Aluminium Armored Cable

SM & MM fibers are positioned in the loose tubes, the tubes are filled with water blocking filling compound. Tubes and fillers are stranded around the strength member into a circular cable core. An APL is applied around the core. Which is filled with the filling compound to protect it. Then the cable is completed with a PE sheath.

**Application** Duct/ Aerial.

### Characteristics

- Excellent mechanical and temperature performance guaranteed by the accurate excess fiber length.
- Critical protection to fibers.
- Single steel wire used as the central strength member.
- Special water-blocking filling compound in the loose tube.  
100% cable core filling.

**Storage/Operating Temperature** -40°C to + 70°C.



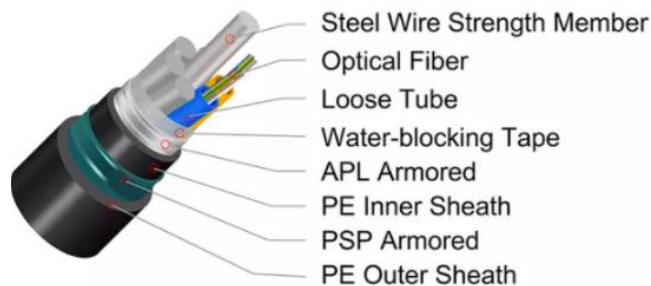
### Technical Parameters

Fiber Count	Tubes+ Fillers	Cable Diameter mm	Cable Weight kg/km	Tensile Strength	Crush Resistance Long/Short Term N/100mm	Bending Radius
				Long/Short Term N		Static/Dynamic mm
2 ~ 30	5	9.5	80	600/1500	300/1000	10D/20D
32 ~ 36	6	9.7	97	600/1500	300/1000	10D/20D
38 ~60	5	10.5	109	600/1500	300/1000	10D/20D
62 ~72	6	11.5	126	600/1500	300/1000	10D/20D
74 ~96	8	13.2	153	600/1500	300/1000	10D/20D
98 ~120	10	14.6	182	600/2000	300/1000	10D/20D
122 ~ 144	12	16.5	221	600/2500	300/1000	10D/20D
146 ~ 288	18	16.5	221	600/2500	300/1000	10D/20D



## Armored Direct Buried Anti Rodent Optical Cable

SM & MM fibers are positioned in the loose tubes, the tubes are filled with water blocking filling compound. Tubes and fillers are stranded around the strength member into a circular cable core. An Aluminium Polyethylene Laminate (APL) is applied around the core which is filled with the filling compound to protect it. Then the cable is completed with a thin PE sheath. After PSP is applied over the inner sheath, the cable is completed with a PE outer sheath.



**Application** Applicable to long-distance communication and inter-office communication.

**Erection Method** Overhead, pipe laying and direct burial.

### Features

- Accurate control of fiber excess length and SZ stranded method to ensure that the cable has excellent mechanical and environmental performance.
- The material of the loose tube is with excellent hydrolysis resistant performance and high tensile strength, and the tube is filled with special fiber grease in order to provide crucial protection for the fiber.
- The structure of double-layer armoring and double-layer sheathing improves the cable's performance of pressure resistance, bulletproof, moisture resistance, and effectively prevents the cable from rodent bite.
- Following methods are adopted to ensure the cable's excellent water-resistant performance:
  - a) Single steel wire central reinforcement.
  - b) The loose tube is filled with special waterproof compounds.
  - c) Cable core is filled with special grease.
  - d) Coated APL moisture-resistant layer.
  - e) Two-side coated PSP moisture-resistant layer.
  - f) Good water-blocking material to prevent the cable from vertical water penetration.
- Maximum fiber number: 288.

**Technical Data**

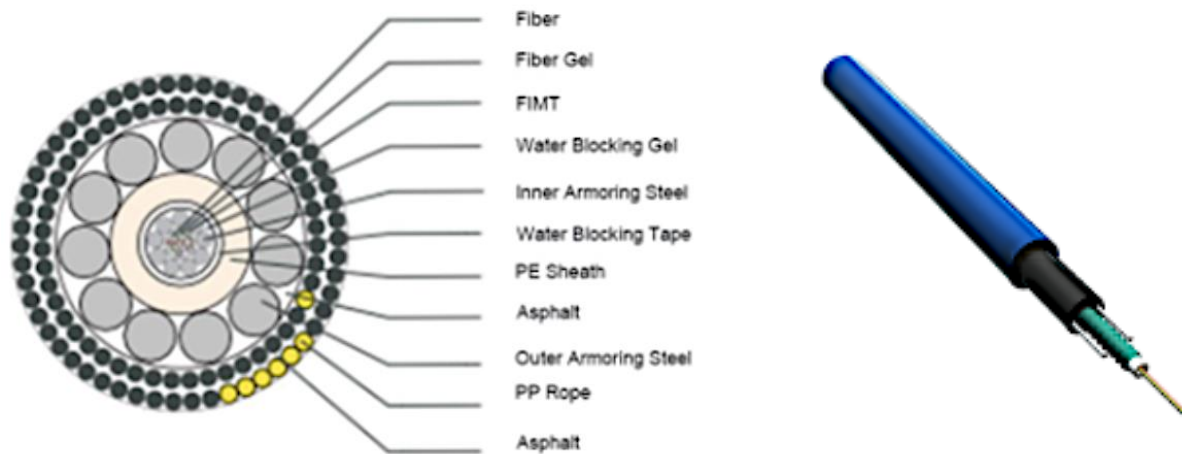
Fiber Number	Steel Wire Diameter (mm)	PBT Loose Tube Size (mm)	Cable Diameter (mm)	Allowed Tensile Strength Long-/Short-term (N)	Allowed Crush Force Long-/Short-term(N/100mm)
4~36	1.8	1.7/1.1	13	1000/3000	1000/3000
38~72	2.2	2.05/1.45	14.2	1000/3000	1000/3000
74~84	3.0/1.8	2.05/1.45	15.4	1000/3000	1000/3000
86~96	3.7/1.8	2.05/1.45	16.2	1000/3000	1000/3000
98~108	4.5/1.8	2.05/1.45	17.2	1000/3000	1000/3000

**Temperature Range** Storage and operation: -40°C~+70°C; Erection: -15°C~+60°C.

**Standard** YD/T 901-2009 & IEC 60794-1.

## Unitube Mining Fire Resistant Fiber Optic Cable

The fibers, 250µm, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. The tube is wrapped with a layer of PSP longitudinally. Between the PSP and the loose tube water-blocking material is applied to keep the cable compact and watertight. Two parallel steel wires are placed at the two sides of the steel tape. The cable is completed with a flame-retardant sheath.



### Characteristics

- Good mechanical and temperature performance.
- High strength loose tube that is hydrolysis resistant.
- Special sheath material ensures excellent flame retardant.
- Special tube filling compound ensure a critical protection of fiber.
- PSP enhancing moisture proof.
- Two parallel steel wires ensure tensile strength.
- Small diameter, light weight and friendly installation.
- Long delivery length.

**Standards** Q62170406-MG001-2011 as well as MT386-2011; and passes MA certification.

## Ordering Information

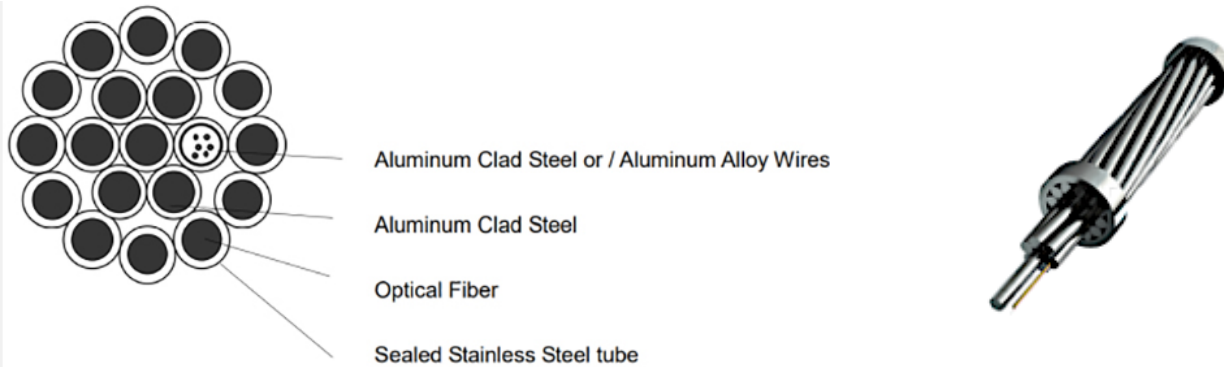
Cable Description	P/N	Fiber Type	Jacket Type	Fiber/Core Number
Unrepeated Submarine Optical Fiber Cable.	TFC/SMARINU	OS1, Os2, G652D, G655C, G657A1.  OM1, OM2, OM3, OM4, OM5	LSZH, PE	Up to 244 Fiber, depends on Cable Type
Submarine Optical Fiber Cable with Steel Wire.	TFC/SMARINS			
Tactical Fiber Optic Cable.	TFC/SMT			
Military Communication System Tactical Fiber Optic Cable.	TFC/SMCT			
Tactical Fiber Optic Cable with Helical Armoured.	TFC/SMTHA			
Hybrid Fiber Cable Self-Supporting Composite Optical Cable.	TFC/SHYSSC			
Armoured Direct Buried Anti Rodent Optical Cable.	TFC/SARADB			
Anti-rodent 2-144 core Fiber Optic Cable.	TFC/SAR			
Anti-termite Optical Cable with Double Metallic Armors and Nylon Sheat.	TFC/SARDMAN			
Non-metallic Anti-rodent Optical Cable.	TFC/SARNM			
ADSS Multi-Tube (MT) FiberGlass Rods (FRP) Defender.	TFC/SARADSFDPD			
Aerial ADSS Multi-Tube (MT) Fiber Glass Yarns.	TFC/SARAADSGY			
Nylon Sheath Anti Rodent Fiber Optic Cable.	TFC/SARN			
Anti-Rodent Outdoor Aluminium Armored Cable.	TFC/SAROALA			
Armored Direct Buried Anti Rodent Optical Cable.	TFC/SARADB			
Unitube Mining Fire Resistant Fiber Optic Cable.	TFC/SMUFR			

# *OPGW Cabling Solution*

## OPGW Stranded Stainless Steel Tube

OPGW Mainly used for power communication with accessories, relay protection, automatic transmission, installation together with high-voltage lines.

The Stranded Optical Ground Wire (OPGW) is stranded by double or three layers of aluminium clad steel wires (ACS) or mix ACS wires and aluminium alloy wires, its design is fully adapted to the most common electric line needs.



Fiber Type	Single Mode	G652D, G655C, G657A1, 50/125, 62.5/125
	Multi Mode	OM1, OM2, OM3, OM4

### Applications

- Commonly used in newly built overhead power lines.
- Can meet the requirements of big number of fibers and ultra-high voltage (UHV) transmission lines.
- Can provide protection against lightning by transmitting large fault short-circuit current.

### Features

- Stable structure, high reliability.
- Able to obtain the second optical fiber excess-length.
- Excellent resistance to distortion and side pressure.
- Can withstand high mechanical stress, and excellent lightning protection performance.

**Technical Parameter  
Double Layer Design**

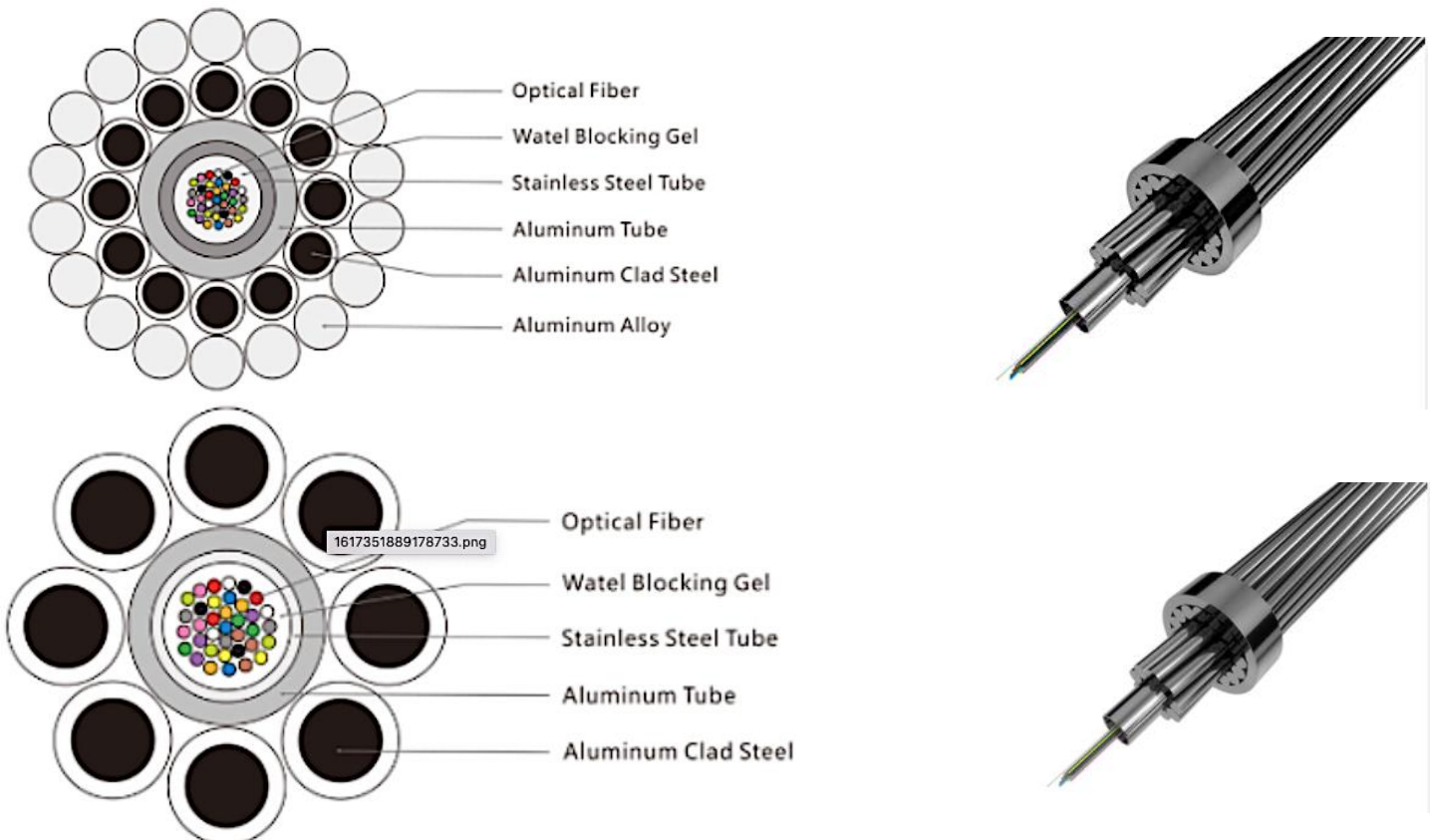
Fiber Count	Diameter(mm)	Weight (kg/km)	RTS(KN)	Short Circuit (KA2s)
24	12.6	381	55.4	62.9
24	14	600	90	86.9
28	13.6	441	64.6	85.6
36	15	537	79	129.5
36	15.6	575	85	148.5
48	16	719	98.6	162.3

**Three Layer Design**

Fiber Count	Diameter(mm)	Weight (kg/km)	RTS(KN)	Short Circuit (KA2s)
28	20.15	1696	343	191.4
36	21	889	116.5	554.6
48	24.7	2157	366.9	687.7
96	22.5	1938	358.7	372.1

### OPGW Central AL-covered Stainless-Steel Tube

OPGW Mainly used for power communication with accessories, relay protection, automatic transmission, installation together with high-voltage lines. The central AL-covered steel tube is surrounded by single or double layers of aluminium clad steel wires (ACS) or mix ACS wires and aluminium alloy wires. AL-covered Stainless Steel Tube design increases the cross section of AL, to reach a better fault current and lightning resistance performance. Apply to the transmission line which requires small diameter and large fault current.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

**Applications** Aerial, Overhead, Outdoor.

#### Features

- High quality IEC607948 IEEE1138 standards for designing, testing, and producing with grade A materials available to ensure long-term reliability.
- Engineering support supervising and providing its own line of accessories hardware.
- Seal stainless steel tube superior protection to the fiber optical to moisture and extreme environmental conditions such as lightning.
- To construct OPGW must cut power, resulting in greater loss, thus OPGW must be used in constructing a high-pressure line over 110kv.
- Apply to the transformation of old lines.



## Technical Parameter

### Single Layer Design

Fiber Count	Diameter(mm)	Weight (kg/km)	RTS(KN)	Short Circuit(KA2s)
24	11.9	504	82.3	46.8
24	11	432	70.1	33.9
48	12.1	514	84.6	46.7

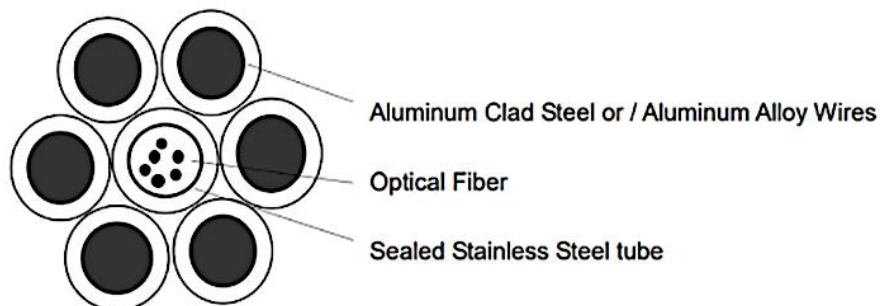
### Double Layer Design

Fiber Count	Diameter(mm)	Weight (kg/km)	RTS(KN)	Short Circuit(KA2s)
36	15.9	617	87.9	176.9

## OPGW Central AL-covered Stainless-Steel Tube

OPGW Mainly used for power communication with accessories, relay protection, automatic transmission, installation together with high-voltage lines.

The central stainless-steel tube is surrounded by single or double layers of aluminium clad steel wires (ACS) or mix ACS wires and aluminium alloy wires. are the most widely used cables, their design is fully adapted to the most common electric line needs.



<b>Fiber Type</b>	<b>Single Mode</b>	G652D, G655C, G657A1, 50/125, 62.5/125
	<b>Multi-Mode</b>	OM1, OM2, OM3, OM4

### Applications

- Replacement of existing ground wires and reconstruction of old lines.
- Applicable to low-grade lines, such as GJ50/70/90 and etc.

### Features

- Small cable diameter, light weight, low additional load to the tower.
- The steel tube locates at the center of the cable, no second mechanical fatigue damage.
- Low resistance to side pressure, torsion and tensile (single layer).

### Technical Parameter

#### Single Layer Design

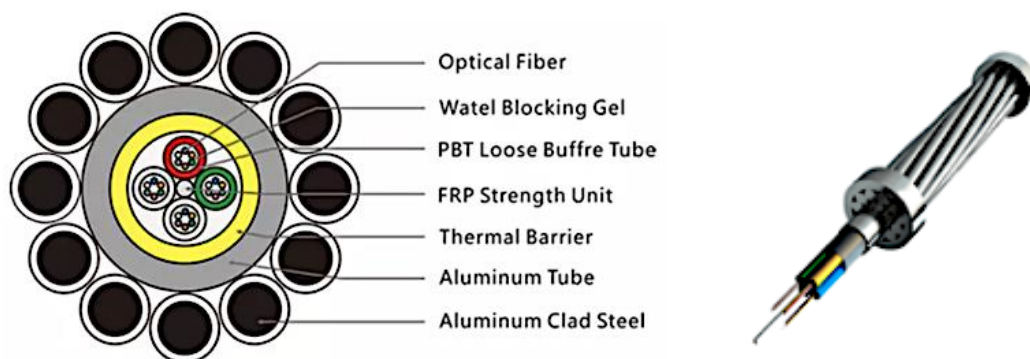
Fiber Count	Diameter (mm)	Weight (kg/km)	RTS (KN)	Short Circuit (KA2s)
12	7.8	243	40.6	4.7
24	9	313	54	8.4
24	9	284	43.5	10.6
36	10.2	394	67.8	13.9
48	10.8	438	73.7	17.5
48	10.8	358	55.1	24.5
54	11.4	485	80.8	21.7
60	12	459	63	36.3
60	12	385	54.5	41.7

## Double Layer Design

Fiber Count	Diameter (mm)	Weight (kg/km)	RTS (KN)	Short Circuit (KA2s)
12	13	671	121.7	42.2
24	15	825	141	87.9
24	15	547	77.8	128
28	16	857	121	132.2
36	17	910	138.2	186.3
36	17	694	99.9	213.7
48	18	775	109.7	268.7
48	18	895	118.4	261.6
Fiber Count	Diameter (mm)	Weight (kg/km)	RTS (KN)	Short Circuit (KA2s)
12	13	671	121.7	42.2
24	15	825	141	87.9
24	15	547	77.8	128
28	16	857	121	132.2
36	17	910	138.2	186.3
36	17	694	99.9	213.7
48	18	775	109.7	268.7
48	18	895	118.4	261.6

## OPGW with PBT Aluminium Tube

The PBT Loose Tube Optical Ground Wire (OPGW) is surrounded by single or double layers of aluminium clad steel wires (ACS) or mix ACS wires and aluminium alloy wires. Good anti-corrosion performance. Material and structure are uniform, good resistance to vibration fatigue.



Fiber Type	Single Mode	G652D, G655C, G657A1, 50/125, 62.5/125
	Multi-Mode	OM1, OM2, OM3, OM4

### Applications

- Reconstruction of old power lines and low voltage level lines.
- Coastal chemical industrial areas with heavy chemical pollution.

### Features

- (Addition to the features of stainless-steel tube OPGW cable) Can meet high electrical performance requirements, and have excellent corrosion resistant performance.
- Applicable to coastal areas and areas with heavy pollution.
- Short-circuit current has little effect on the fiber.

### Technical Parameter

Fiber Count	Diameter (mm)	Weight (kg/km)	RTS (KN)	Short Circuit (KA2s)
48	14.8	600	87.9	176.9
24	12	500	81	41
36	11.8	484	79	36
36	12.7	503	72	67



## Stainless Steel Tube Optical Fiber Unit

Each tube is flooded with a thixotropic filling compound and hermetically sealed to protect the enclosed fibers from environmental degradation. This product is sometimes referred to as FIST (Fiber in Steel Tube) or FIMT (Fiber in Metal Tube).



### Applications

- OPGW.
- Umbilical Cables.
- Downhole Cables for Oil & Gas.
- Towed Arrays.
- High Temperature Cables.
- Hybrid Cables.
- Sensor Cable.

Item	Unit	Description
Material		Stainless steel tape
Inner diameter	mm	2.60±0.05mm
Outer diameter	mm	3.00±0.05mm
Filling component		Water repellent, thixotropic jelly
Fiber number		24
Fiber types		G652D
Elongation	%	Min.1.0
Fiber excess length	%	0.5-0.7

### Ordering Information for OPGW Cabling Solution

Cable Description	P/N	Fiber Type	Fiber/Core Number
OPGW Stranded Stainless Steel Tube.	TFC/OPGSST	<b>Single-Mode:</b> OS1, Os2, G652D, G655C, G657A1. <b>Multi-mode</b> OM1, OM2, OM3, OM4, OM5	<b>Up to 244 Fiber,</b> <b>depends on Cable</b> <b>Type</b>
OPGW Central AL-covered Stainless-Steel Tube.	TFC/OPGCSST		
OPGW Central Stainless-Steel Loose Tube.	TFC/OPGCSSTL		
OPGW with PBT Aluminium Tube.	TFC/OPGPBTAT		
Stainless Steel Tube Optical Fiber Unit.	TFC/OPGSSTU		

# *Fiber Optic Components and Assemblies*

## **Optical Fiber Patch Cords**

- Single Mode and Multi-Mode Patch Cords.
- 288F Trunk Cable Patch Cords (Break Out Cable).
- Distribution Patch Cords.
- Spiral Armoured Patch Cords.
- SC Outdoor Indoor Patch Cords.
- Trunk Cables Patch Cords.

## **Pigtails**

- Water proof pigtails.
- Fullax Water Proof Cable Pigtails.
- ODVA Pigtails.

## **MPO & MTP Solutions**

- MTP to FA.
- MPO 48-F Break-Out Cable.
- MPO 12-F Round cable.
- MPO 24-F Ribbon cable.
- MPO-LC 12-F Break-Out Cable Assemblies.
- MPO-SC 12-F patch cords.
- MPO-FC 16-F patch cords
- MT 24-F patch cord.
- MTP to MTP Low Loss Patch Cords.
- MPO/MTP Strand.
- MPO adapter.
- MPO Connectors.

## **Fiber Optic Components**

- Fiber Optic Adaptors.
- Fiber Optic Connectors.
- Fiber Attenuator.

## **Fiber Optic Splitters**

- PLC splitter ABS Box type.

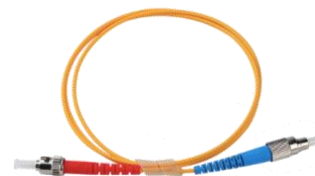
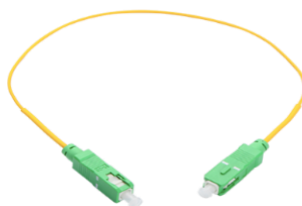
- Rack mount PLC splitter
- PLC Splitter bare fiber
- PLC mini mould splitters.



# *Optical Fiber Patch Cord*

### Single Mode and Multi-mode Patch Cords Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive Device.
- FTTH and FTTX.



### Specifications

SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	±0.5dB(1~10dB), ±10%dB(11~30dB)			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5µm Ferrule	1.25µm Ferrule		
	UPC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50µm	0~50µm	0~50µm	0~50µm
Fiber Height	-100~50nm	-100~100nm	-100~50nm	-100~100nm
Angle		7.7-8.3 degree		7.7-8.3 degree

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometric.
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.



### Material

- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube.

## 288F Trunk Cable Patch Cords (Break Out Cable)

### Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive device.
- FTTH and FTTX.

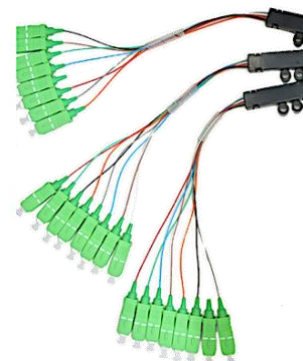


### Specifications

SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	$\pm 0.5\text{dB}(1\sim 10\text{dB}), \pm 10\% \text{dB}(11\sim 30\text{dB})$			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5 $\mu\text{m}$ Ferrule	1.25 $\mu\text{m}$ Ferrule		
UPC	APC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50 $\mu\text{m}$	0~50 $\mu\text{m}$	0~50 $\mu\text{m}$	0~50 $\mu\text{m}$
Fiber Height	-100~50nm	-100~100nm	-100~50nm	-100~100nm
Angle		7.7-8.3 degree		7.7-8.3 degree

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometric.
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.



### Material

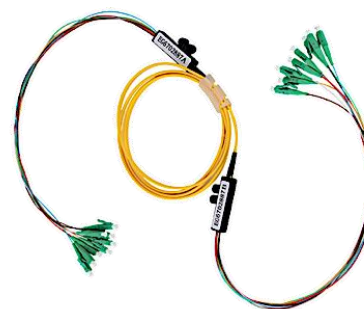
- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube.



## Distribution Patch Cords

### Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive device.
- FTTH and FTTX.

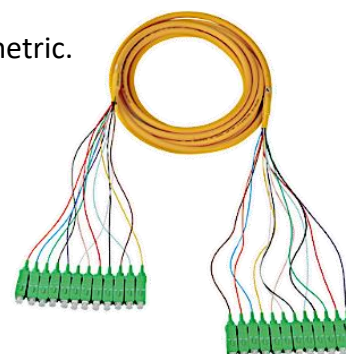


### Specifications

SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	$\pm 0.5\text{dB}(1\sim 10\text{dB}), \pm 10\% \text{dB}(11\sim 30\text{dB})$			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5 $\mu\text{m}$ Ferrule	1.25 $\mu\text{m}$ Ferrule		
UPC	APC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50 $\mu\text{m}$	0~50 $\mu\text{m}$	0~50 $\mu\text{m}$	0~50 $\mu\text{m}$
Fiber Height	-100~50nm	-100~100nm	-100~50nm	-100~100nm
Angle		7.7-8.3 degree		7.7-8.3 degree

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometric.
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.



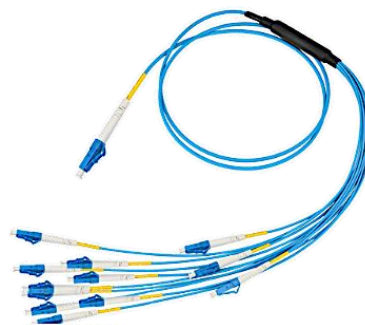
### Material

- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube.

## Spiral Armoured Patch Cords.

### Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive device.
- FTTH and FTTX.



### Specifications

SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	±0.5dB(1~10dB), ±10%dB(11~30dB)			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5µm Ferrule	1.25µm Ferrule		
UPC	APC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50µm	0~50µm	0~50µm	0~50µm
Fiber Height	-100~50nm	-100~100nm	-100~50nm	-100~100nm
Angle	7.7-8.3 degree		7.7-8.3 degree	

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometri
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.



### Material

- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube.

## SC Outdoor Indoor Patch Cords

### Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive device.
- FTTH and FTTX.



### Specifications

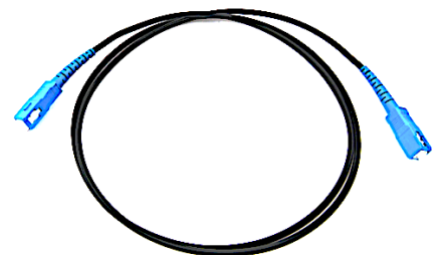
SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	±0.5dB(1~10dB), ±10%dB(11~30dB)			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5µm Ferrule	1.25µm Ferrule		
UPC	APC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50µm	0~50µm	0~50µm	0~50µm
Fiber Height	-100~50nm	-100~100nm	-100~50nm	-100~100nm
Angle	7.7-8.3 degree		7.7-8.3 degree	

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometric.
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.

### Material

- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube.



## Trunk Cables Patch Cords

### Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive device.
- FTTH and FTTX.



### Specifications

SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	±0.5dB(1~10dB), ±10%dB(11~30dB)			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5µm Ferrule		1.25µm Ferrule	
UPC	APC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50µm	0~50µm	0~50µm	0~50µm
Fiber Height	-100~50nm	-100~100nm	- 100~50nm	-100~100nm
Angle			7.7-8.3 degree	

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometric.
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.

### Material

- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube



### Ordering Information for Optical Fiber Patch Cords

Description	P/N	Fiber Type	Connector
288F Trunk Cable Patch Cords (Break Out Cable).	TFPC/TBO288F	OS1, Os2, G652D, G655C, G657A1.	SC, FC, LC, E2000, ST. Duplex, Simplex
Distribution Patch Cords.	TFPC/D		
Spiral Armoured Patch Cords.	TFPC/SA	OM1, OM2, OM3, OM4,	
SC Outdoor Indoor Patch Cords.	TFPC/ODSC		
Trunk Cables Patch Cords.	TFPC/T		

# *Pigtails*



## Water proof pigtails

### Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive device.
- FTTH and FTTX.



### Specifications

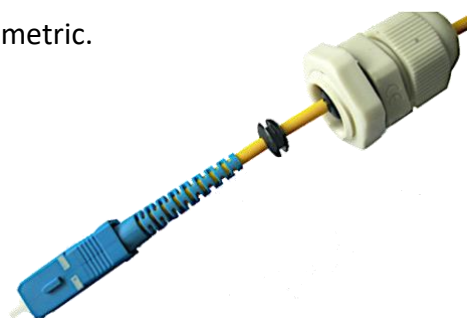
SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	±0.5dB(1~10dB), ±10%dB(11~30dB)			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5μm Ferrule	1.25μm Ferrule		
UPC	APC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50μm	0~50μm	0~50μm	0~50μm
Fiber Height	-100~50nm	-100~100nm	-100~50nm	-100~100nm
Angle	7.7-8.3 degree		7.7-8.3 degree	

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometric.
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.

### Material

- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube.



## Fullax Water Proof Cable Pigtails

### Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive device.
- FTTH and FTTX.



### Specifications

SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	±0.5dB(1~10dB), ±10%dB(11~30dB)			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5µm Ferrule	1.25µm Ferrule		
UPC	APC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50µm	0~50µm	0~50µm	0~50µm
Fiber Height	-100~50nm	-100~100nm	-100~50nm	-100~100nm
Angle	7.7-8.3 degree		7.7-8.3 degree	

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometric.
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.

### Material

- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube.

## ODVA Pigtails

### Applications

- Telecommunication network.
- CATV system.
- Local Area Network.
- Active/Passive device.
- FTTH and FTTX.



### Specifications

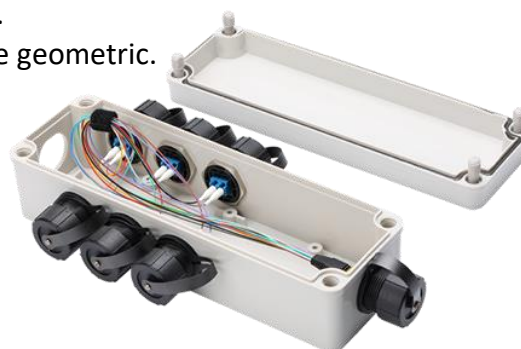
SM		MM		
9/125	50/125	62.5/125	OM3/OM4	
UPC	APC	PC		
Attenuation	From 1dB to 30dB			
Tolerance	±0.5dB(1~10dB), ±10%dB(11~30dB)			
Durability	1000 times			
Working Tem	-40 to +80°C			
Storage Tem	-40 to +80°C			
Endface Geometry				
Parameter	2.5µm Ferrule	1.25µm Ferrule		
UPC	APC	UPC	APC	
Radius of Curvature	10-25mm	5-12mm	7-25mm	5-12mm
Apex Offset	0~50µm	0~50µm	0~50µm	0~50µm
Fiber Height	-100~50nm	-100~100nm	-100~50nm	-100~100nm
Angle	7.7-8.3 degree		7.7-8.3 degree	

### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection and end-face geometric.
- Low Insertion Loss and high Return Loss.
- Varieties of Cable Assemblies.
- RoHS Compliance.

### Material

- Ferrule: Zirconia.
- Fibers: Corning, Draka, YOFC.
- Jacket: PVC, LSZH, OFNR, OFNP.
- Cable: Tight buffer, easy stripping tight buffer, loose tube.



### Ordering Information for Pigtails

Description	P/N	Fiber Type	Connector
Water proof pigtails.	TFP/WP	<b>Single-Mode:</b> OS1, Os2, G652D, G655C, G657A1. <b>Multi-mode</b> OM1, OM2, OM3, OM4, OM5	<b>SC, FC, LC, E2000, ST. Duplex, Simplex</b>
Fullax Water Proof Cable Pigtails.	TFC/WPC		
ODVA Pigtails.	TFC/ODVA		

# *MPO & MTP Solutions*

## MTP to FA



### FA parameter

Number of channels	1	4	8	12	16	32	64
V-groove Material	Quartz or Borosilicate glass						
Fiber Type	G657A1 Fiber or Customer Specified						
V-groove core pitch	μm	250/127(±0.5)					
Polishing angle	degree	8°(±0.3°)、45°(±0.5°)、43°(±0.5°)					
Channel spacing	μm	N/A	250	250/127	250/127	127	127
Package	mm	According to the Requirements of the Guests					
(L)X(W)X(H)							
Operating Temperature (°C)	-40~85						
Storage Temperature (°C)	-40~85						

## MPO 48-F Break-Out Cable

### Associated Standards

- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.



### Parallel Optics

- Optical Internetworking Forum (OIF) Compliant.
- Infiniband Compliant.

### InfiniBand

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.

Geomtry			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
RY	5nm	∞	
Angle	GX	-0.2	0.2
GY	7.8	8.2	
Fiber height	1000nm	3500nm	
D-Value of fiber height	N/A	500nm	
Neightboring D-Value of fiber height	N/A	300nm	

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
Insertion Loss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						

## MPO 12-F Round cable

### Associated Standards

- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.

### Parallel Optics

- Optical Internetworking Forum (OIF) Compliant.
- InfiniBand Compliant.

### InfiniBand:

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.



Geomtry			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
RY	5nm	∞	
Angle	GX	-0.2	0.2
GY	7.8	8.2	
Fiber height	1000nm	3500nm	
D-Value of fiber height	N/A	500nm	
Neightboring D-Value of fiber height	N/A	300nm	

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
InsertionLoss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						

### MPO 24-F Ribbon cable

#### Associated Standards

- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.



#### Parallel Optics

- Optical Internetworking Forum (OIF) Compliant.
- InfiniBand Compliant.

#### InfiniBand:

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.

Geomitry			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
	RY	5nm	∞
Angle	GX	-0.2	0.2
	GY	7.8	8.2
Fiber height	1000nm	3500nm	
D-Value of fiber height		N/A	500nm
Neightboring D-Value of fiber height		N/A	300nm

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
Insertion Loss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						



## MPO-LC 12-F Break-Out Cable Assemblies

### Associated Standards

- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.

### Parallel Optics

- Optical Internetworking Forum (OIF) Compliant.
- InfiniBand Compliant.

### InfiniBand

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.



Geomitry			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
	RY	5nm	∞
Angle	GX	-0.2	0.2
	GY	7.8	8.2
Fiber height	1000nm	3500nm	
D-Value of fiber height		N/A	500nm
Neightboring D-Value of fiber height		N/A	300nm

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
Insertion Loss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						



# TELUNIX



## MPO-SC 12-F patch cords

### Associated Standards

- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.

### Parallel Optics

- Optical Internetworking Forum (OIF) Compliant.
- InfiniBand Compliant.

### InfiniBand

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.

Geomitry			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
	RY	5nm	∞
Angle	GX	-0.2	0.2
	GY	7.8	8.2
Fiber height	1000nm	3500nm	
D-Value of fiber height		N/A	500nm
Neightboring D-Value of fiber height		N/A	300nm

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
Insertion Loss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						

## MPO-FC 16-F patch cords

### Associated Standards

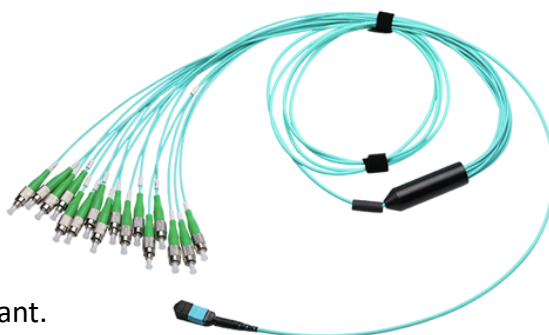
- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.

### Parallel Optics

- Optical Internetworking Forum (OIF) Compliant.
- InfiniBand Compliant.

### InfiniBand

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.



Geomtry			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
	RY	5nm	∞
Angle	GX	-0.2	0.2
	GY	7.8	8.2
Fiber height	1000nm	3500nm	
D-Value of fiber height		N/A	500nm
Neightboring D-Value of fiber height		N/A	300nm

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
Insertion Loss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						

**MT 24-F patch cord.**

**Associated Standards**

- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.



**Parallel Optics**

- Optical Internetworking Forum (OIF) Compliant.
- InfiniBand Compliant.

**InfiniBand**

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.

Geomitry			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
	RY	5nm	∞
Angle	GX	-0.2	0.2
	GY	7.8	8.2
Fiber height	1000nm	3500nm	
D-Value of fiber height		N/A	500nm
Neightboring D-Value of fiber height		N/A	300nm

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
Insertion Loss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						

## MTP to MTP Low Loss Patch Cords

### Associated Standards

- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.

### Parallel Optics

- Optical Internetworking Forum (OIF) Compliant.
- InfiniBand Compliant.

### InfiniBand

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.



Geomity			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
	RY	5nm	∞
Angle	GX	-0.2	0.2
	GY	7.8	8.2
Fiber height	1000nm	3500nm	
D-Value of fiber height		N/A	500nm
Neightboring D-Value of fiber height		N/A	300nm

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
Insertion Loss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						

## MTP to MTP Low Loss Patch Cords

### Associated Standards

- Meets IEC Standard 61754-7 & JIS C5982.
- Structured cabling per TIA-568-C.

### Parallel Optics

- Optical Internetworking Forum (OIF) Compliant.
- InfiniBand Compliant.

### InfiniBand

- 10G Fiber Channel Compliant.
- 40G and 100G IEEE802.3.
- QSFP.



Geomitry			
Specifications	Min.Value	Max.Value	
Radius of curve	RX	2000nm	∞
	RY	5nm	∞
Angle	GX	-0.2	0.2
	GY	7.8	8.2
Fiber height	1000nm	3500nm	
D-Value of fiber height		N/A	500nm
Neightboring D-Value of fiber height		N/A	300nm

Specifications							
MPO/MTP	Standard	Low Loss	Standard	Low Loss			
SM 1310nm/1550nm	850nm						
	PC	APC	PC	APC	PC	PC	
Insertion Loss	Typical(dB)	≤0.35	≤0.35	≤0.2	≤0.2	≤0.35	≤0.2
	Maximum(dB)	≤0.75	≤0.75	≤0.35	≤0.35	≤0.6	≤0.35
Return Loss	≥35	≥50	≥35	≥50	≥20	≥20	
Durability	500times						
Working Tem	- 40°C to + 75°C						
Storage Tem	- 40°C to + 75°C						

## MPO adapter

### Applications

- Optical fiber communication system.
- Limited TV network.
- LAN and optical domain network.
- Fiber to the Home (FTTP).
- Video transmission.
- Test instrument.



### Features

- Telcordia GR-326, IEC, TIA/EIA Standard compliant.
- 100% Optical performance inspection.
- Low Insertion Loss.
- RoHS Compliance.
- Customized design and production.

### Optical Performance

	Premium Grade	Standard Grade
Insertion Loss	≤0.1dB	≤0.2dB
Durability	1000 times	1000 times

### Environment and Mechanical

Properties	Test condition	Conformance	Test result
Vibration	10-55Hz, 1.5mm, 60min	IEC61300-2-1	≤0.2dB
Mating Durability	1000 Mating, clean every 25 mating.	IEC61300-2-2	≤0.2dB
Impact	1.5m, 8 drops	IEC61300-2-6	≤0.2dB
Strength of Coupling Mechanism	40N, 10Min, L=22-28cm	IEC61300-2-12	≤0.2dB
Temperature Cycling	40°C to +75°C, 40 cycles	IEC61300-2-22	≤0.2dB
Temperature humidity cycling	40°C, 95%, 96Hr	IEC61300-2-21	≤0.2dB
Operating Temperature	-40°C to +85°C		≤0.2dB
Storage Temperature	-40°C to +85°C		≤0.2dB



## MPO Connectors



MPO Round Connector



MTP loopback



MPO Oval Connector



MPO ribbon Connector



MPO 16F&32F Connector

### Ordering Information for MPO Solutions

Description	P/N	Fiber Type	Connector
MTP to FA.	TFPC/MTPFA	<b>Single-Mode:</b> OS1, Os2, G652D, G655C, G657A1. <b>Multi-mode</b> OM1, OM2, OM3, OM4, OM5	<b>MPO,            MTP, FA,            MT</b>
MPO 48-F Break-Out Cable.	TFPC/48FMPOBO		
MPO 12-F Round cable.	TFPC/12FMPOR		
MPO 24-F Ribbon cable.	TFPC/24FMPOR		
MPO-LC 12-F Break-Out Cable Assemblies.	TFPC/12FMPOLCBO		
MPO-SC 12-F patch cords.	TFPC/12FMPOSC		
MPO-FC 16-F patch cords	TFPC/16FMPOSC		
MT 24-F patch cord.	TFPC/24FMT		
MTP to MTP Low Loss Patch Cords	TFPC/MTPMTP		
MPO/MTP Strand.	TFPC/MPOMTP		
MPO adapter.	TFA/MPO		
MPO Connectors:	TFCON/MPO		



# *Fiber Optic Components*



# TELUNIX

## Fiber Optic Adaptors



SC SX with internal Shutter.



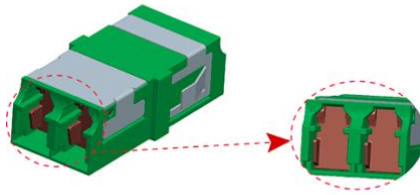
LC Quad Adapter with Inner Shutter.



LC DX Adapter with Integrated Shutter.



LC DX with Internal Shutter.



LC with Inner Shutter --9.3mm Height.



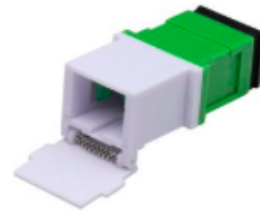
SC With Inner Shutter --9.3mm Height.



LC Quad with Internal Shutter.



LC DX with Internal Shutter.



SC SX with External Shutter.



LC Quad shutter with internal shutter.



LC DX with Internal Shutter.



LC DX with Shutter.



LC SX with Integrated Shutter.



SC with Transparent Shutter.



SC with Internal Shutter.



SC DX with Shutter.



SC DX with Shutter.



LC Quad with Shutter.



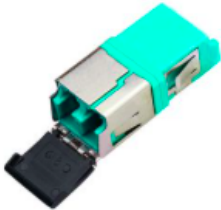
SC SX with shutter.



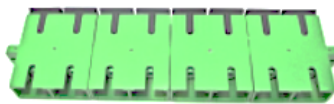
SC SX with Shutter.



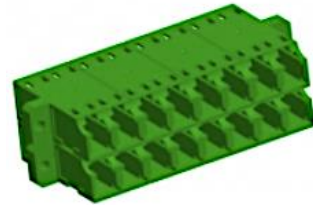
LC DX with Shutter.



LC DX with Shutter.



SC Stackable.



LC Stackable.



SC SX with Side Shutter.



E2000.



FC Bare Fiber Optical.



FC to SC Hybrid with Metal Housing.



FC to LC Hybrid with Plastic Housing.



FC metal Square, One Piece.



ST with Plastic Housing.



ST Round Type.



LC DX Senior Junior Design.



SC SX with Metal Housing.



LC SX.



Retractable Shutter for CS & LC.



LC Bare.



SC with Integrated Shutter.



FC to SC SX Plastic Housing.



MTRJ



FC Metal Square.



LC DX Single Lock.



SC SX.



SC DC & LC Quad Metal Shutter.



SC Bare.



FC to SC DX with Plastic Housing.



ST DX with Plastic Housing.



FC D type Small D.



FC to ST Hybrid SX



ST Bare.



FC Big D.



ST DX with Metal Housing.



LC DC with Integrated Clip.



FC with Metal Rectangle Flange.



FC-ST Hybrid, DX with Metal Housing.



MU SX



MU DX





# TELUNIX

## Fiber Optic Connectors



LC – Patent Design.



LC SX 3.0MM



LC DX 3.0MM.



LC Uniboot with Push-Pull.



LC SX with Push-Pull.



LC Unitboot



LC DX with Push-Pull.



FC Fast Field.



LC Fast Field



E2000 0.9mm



SC SX (Curve/Flexiible Boot).



MU 2.0mm.



MU 0.9mm.



ST 3.00mm.



ST 0.9mm.



SC 0.9mm.



SC SX 2.0mm.



SC Fast Connector.  
(Embedded Type).



Bare Fiber Cold  
Mechanical.



SC Fast Connector  
(Embedded Type).



1.2mm LC.



LC with Curve Boot.



FC 2.0mm.



LC SX 2.00mm.



FC 0.9mm.



SC DX 3.0mm.



E2000 2.0mm



LC 0.9mm.



SMA 905 with  
Metal Ferrule.



MTRJ.



SC SX 3.00mm.



ST 2.0mm.



FC 3.0mm.



E2000 3.0mm.

**Fiber Attenuator**

LC Plug in Type



LC Adapter Type



FC Variable



SC Plug



# *Fiber Optic Splitters*

## PLC mini mould splitters

### Features

- Good uniformity and low insertion loss.
- Low Polarization Dependent Loss.
- Excellent Environmental Stability.
- Excellent Mechanical.
- High Stability.

### Applications

- Fiber to The Point (FTTX).
- Fiber to The Home (FTTH).
- Passive optical networks(PON).
- Local Area Networks (LAN).
- Cable Television (CATV).
- Test Equipment.



### Specifications

Type	1×2	1×4	1×8	1×16	1×32	1×64	2×2	2×4	2×8	2×16	2×32	2×64	
Fiber Type	9/125 um or customer appointed												
Operating Wavelength(nm)	1260~1650												
Insertion Loss(dB)	Typical	3.6	6.8	10	13	16	19.5	4	7	10.5	13.5	16.5	20.5
	(P/S)Max	3.8/ 4	7.1/ 7.3	10.2/ 10.5	13.5/ 13.7	16.5/ 16.8	20.5/ 21	4.1/ 4.3	7.4/ 7.6	10.8/ 11	14.3/ 14.5	17.3/ 17.5	20.7/ 21.5
Loss Uniformity(dB)-Max	0.6	0.6	0.8	1.2	1.5	2.5	0.8	0.8	1.5	2	2.5	2.5	
Polarisation Dependent Loss(dB)-Max	0.15	0.15	0.25	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.4	
Dimension(WxHxL)(mm)	4×4	4×4	4×4	4×7	4×7	4×12	4×4	4×4	4×4	4×7	4×7	4×12	
Ribbon/Bare Fiber	×40	×40	×40	×50	×50	×60	×50	×50	×50	×60	×60	×60	
Dimension(WxHxL)(mm) ABS BOX(0.9, 2.0, 3.0mm)	100x80x10			120x80x18		141x114x18		100x80x10			120x80x18		141x114x18
Directivity(dB)-Min	55												
Return Loss(dB)-Min	UPC:50 APC:60												
Operating Temperature(°C)	-40~85												
Storage Temperature(°C)	-40~85												
Connector type	FC, SC,ST, LC, MU.....												

## PLC splitter ABS Box type

### Features

- Good uniformity and low insertion loss.
- Low Polarization Dependent Loss.
- Excellent Environmental Stability.
- Excellent Mechanical.
- High Stability.

### Applications

- Fiber to The Point (FTTX).
- Fiber to The Home (FTTH).
- Passive optical networks (PON).
- Local Area Networks (LAN).
- Cable Television (CATV).
- Test Equipment.



### Specifications

Type	1x2	1x4	1x8	1x16	1x32	1x64	2x2	2x4	2x8	2x16	2x32	2x64	
Fiber Type	9/125 um or customer appointed												
Operating Wavelength(nm)	1260~1650												
Insertion Loss(dB)	Typical	3.6	6.8	10	13	16	19.5	4	7	10.5	13.5	16.5	20.5
	(P/S)Max	3.8/ 4	7.1/ 7.3	10.2/ 10.5	13.5/ 13.7	16.5/ 16.8	20.5/ 21	4.1/ 4.3	7.4/ 7.6	10.8/ 11	14.3/ 14.5	17.3/ 17.5	20.7/ 21.5
Loss Uniformity(dB)-Max	0.6	0.6	0.8	1.2	1.5	2.5	0.8	0.8	1.5	2	2.5	2.5	
Polarization Dependent Loss(dB)-Max	0.15	0.15	0.25	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.4	
Dimension (WxHxL)(mm)	4x4	4x4	4x4	4x7	4x7	4x12	4x4	4x4	4x4	4x7	4x7	4x12	
Ribbon/Bare Fiber	x40	x40	x40	x50	x50	x60	x50	x50	x50	x60	x60	x60	
Dimension (WxHxL)(mm) ABS BOX (0.9, 2.0, 3.0mm)	100x80x10			120x80x18		141x114x18	100x80x10			120x80x18		141x114x18	
Directivity(dB)-Min	55												
Return Loss(dB)-Min	UPC:50 APC:60												
Operating Temperature (°C)	-40~85												
Storage Temperature (°C)	-40~85												
Connector type	FC, SC,ST, LC, MU.....												

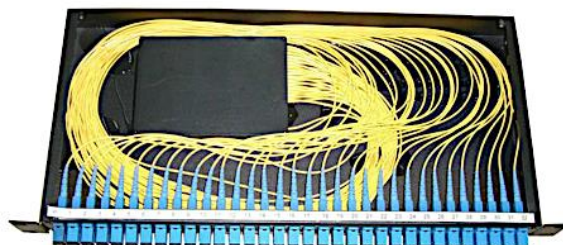
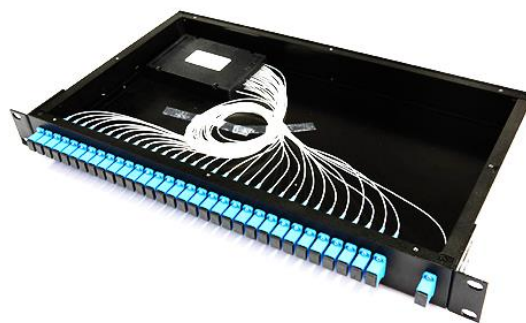
## Rack mount PLC splitter

### Features

- Good uniformity and low insertion loss.
- Low Polarization Dependent Loss.
- Excellent Environmental Stability.
- Excellent Mechanical.
- High Stability.

### Applications

- Fiber to The Point (FTTX).
- Fiber to The Home (FTTH).
- Passive optical networks (PON).
- Local Area Networks (LAN).
- Cable Television (CATV).
- Test Equipment



### Specifications

Type	1×2	1×4	1×8	1×16	1×32	1×64	2×2	2×4	2×8	2×16	2×32	2×64	
Fiber Type	9/125 um or customer appointed												
Operating Wavelength(nm)	1260~1650												
Insertion Loss(dB)	Typical	3.6	6.8	10	13	16	19.5	4	7	10.5	13.5	16.5	20.5
	(P/S)	3.8/	7.1/	10.2/	13.5/	16.5/	20.5/	4.1/	7.4/	10.8/	14.3/	17.3/	20.7/
	Max	4	7.3	10.5	13.7	16.8	21	4.3	7.6	11	14.5	17.5	21.5
Loss Uniformity(dB)-Max	0.6	0.6	0.8	1.2	1.5	2.5	0.8	0.8	1.5	2	2.5	2.5	
Polariation Dependent Loss(dB)-Max	0.15	0.15	0.25	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.4	
Dimension (WxHxL)(mm)	4×4	4×4	4×4	4×7	4×7	4×12	4×4	4×4	4×4	4×7	4×7	4×12	
	Ribbon/Bare Fiber	×40	×40	×40	×50	×50	×60	×50	×50	×50	×60	×60	
Dimension (WxHxL)(mm) ABS BOX (0.9, 2.0, 3.0mm)	100x80x10			120x80x18		141x114x18	100x80x10			120x80x18		141x114x18	
Directivity(dB)-Min	55												
Return Loss(dB)-Min	UPC:50 APC:60												
Operating Temperature (°C)	-40~85												
Storage Temperature (°C)	-40~85												
Connector type	FC, SC,ST, LC, MU.....												

## PLC Splitter bare fiber

### Features

- Good uniformity and low insertion loss.
- Low Polarization Dependent Loss.
- Excellent Environmental Stability.
- Excellent Mechanical.
- High Stability.



### Applications

- Fiber to The Point (FTTX).
- Fiber to The Home (FTTH).
- Passive optical networks (PON).
- Local Area Networks (LAN).
- Cable Television (CATV).
- Test Equipment.

### Specifications

Type	1x2	1x4	1x8	1x16	1x32	1x64	2x2	2x4	2x8	2x16	2x32	2x64	
Fiber Type	9/125 um or customer appointed												
Operating Wavelength(nm)	1260~1650												
Insertion Loss(dB)	Typical	3.6	6.8	10	13	16	19.5	4	7	10.5	13.5	16.5	20.5
	(P/S)Max	3.8/ 4	7.1/ 7.3	10.2/ 10.5	13.5/ 13.7	16.5/ 16.8	20.5/ 21	4.1/ 4.3	7.4/ 7.6	10.8/ 11	14.3/ 14.5	17.3/ 17.5	20.7/ 21.5
Loss Uniformity(dB)-Max	0.6	0.6	0.8	1.2	1.5	2.5	0.8	0.8	1.5	2	2.5	2.5	
Polarization Dependent Loss(dB)-Max	0.15	0.15	0.25	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.4	
Dimension(WxHxL)(mm)	4x4	4x4	4x4	4x7	4x7	4x12	4x4	4x4	4x4	4x7	4x7	4x12	
Ribbon/Bare Fiber	x40	x40	x40	x50	x50	x60	x50	x50	x50	x60	x60	x60	
Dimension(WxHxL)(mm) ABS BOX(0.9, 2.0, 3.0mm)	100x80x10			120x80x18		141x114x18		100x80x10			120x80x18		141x114x18
Directivity(dB)-Min	55												
Return Loss(dB)-Min	UPC:50 APC:60												
Operating Temperature(°C)	-40~85												
Storage Temperature(°C)	-40~85												
Connector type	FC, SC,ST, LC, MU.....												

### Ordering Information for Splitters

Description	P/N	Fiber Type	Connectors
PLC splitter ABS Box type.	TFSP/PLCABSXB	G652D, G655C, G657A1. OM1, OM2, OM3, OM4,	SC, FC, LC , ST.
Rack mount PLC splitter	TFSP/PLCRM		
PLC Splitter bare fiber	TFSP/PLCSBF		
PLC mini mould splitters.	TFSP/PLCMIM		

# *Fiber Optic Management Solutions*

## **Fiber Patch Panels**

- Fiber Optic Rotary Patch Panel.
- Fixed Fiber Optic Patch Panel.
- 19" 1U Sliding Rail Fiber Patch Panel.
- 19' 1U Sliding Drawer Patch panel.
- 19' 2U Sliding Rail Fiber Patch Panel Model-A.
- 19" 2U Sliding Rail Fiber Patch Panel Model-B.
- 19" 3U Sliding Rail Patch Panel.
- 19" 4U Sliding Rail Fiber Patch Panel.

## **Fiber Optic Inline Splice Closures**

- 12F-96F Inline Splice Closure (INL-T01)
- 12F-120F Inline Splice Closure (INL-T02)
- 12F-48F Inline Splice Closure (INL-T03)
- F-288F Inline Splice Closure (INL-T04)
- Up to 1152F Inline Splice Closure for Ribbon (INL-T05)
- 12F-48F Inline Splice Closure for Ribbon (INL-T06)
- 96F Inline Splice Closure (INL-T07).
- 60F Inline Splice Closure (INL-T08).
- 24F Aerial Inline Splice Closure (INL-AT09)
- 36F Inline Splice Closure (INL-T10).
- 72F-288F Inline Splice Closure (INL-T11 A/B).
- 144F Inline Splice Closure (INL-T12 A/B).
- 288F Inline Splice Closure (INL-T13)
- 96F Horizontal Inline Splice Closure (INL-T14).
- 96F Inline Splice Closure (INL-T15).
- 180F-720F Inline Splice Closure (INL-T16).
- 96F-288F Horizontal Inline Splice Closure (INL-T17).
- 96F-288F Horizontal Inline Splice Closure (INL-T18).

## **Fiber Optic Inline Splice Closures**

- 12F-288F Dome fiber splice closure (DM-T01).
- 12F-168F Dome fiber splice closure (DM-T02).
- F-144F Dome fiber splice closure (DM-T03).
- 4F-360F Dome fiber splice closure (DM-T04).

- Splitter- Dome fiber splice closure (DM-TS-05).
- 24-192F Dome fiber splice closure (DM-T06).

### **Fiber Optic Indoor Termination Boxes**

- Indoor Fiber Optice Terminal Box (TXINT/01).
- Indoor/Outdoor Fiber Optice Terminal Box (TXODT/02).
- Indoor Fiber Optice Splitter Box (TXINT/03).
- Indoor Fiber Optice Termination Box (TXINT/04).
- Indoor Fiber Optice Mid Span Termination Box (TXINT/05).
- Indoor Fiber Optice Uncut Optical Fiber Splitter Termination Box (TXINT/06).
- Fiber Optical Termination Box Mid Span Anti UV Shocking Resistance Gray IP56 (TXINT/07).
- Indoor Fiber Optice Uncut Optical Fiber Splitter Termination Box (TXINT/08).
- Indoor Fiber Optice Uncut Optical Fiber Splitter Termination Box IP30 (TXINT/09).
- Indoor Fiber Optice Uncut Optical Fiber Splitter Termination Box IP30 (TXINT/10).
- Indoor Fiber Optic Termination Box Cold Rolled Steel Sheet Material (TXINT/11).



# *Fiber Patch Panels*

## Fiber Optic Rotary Patch Panel

Design of hinge and convenient press pull button lock. Small size, light weight, pleasing in appearance. With max fiber capacity 2 adapter output, available for the installation of FC, SC, ST, LC adapters.

### Features

- Low excess loss & high performance.
- Retractable splicing tray.
- Convenience and ease of handling.
- Indoor use, outdoor use customized.

### Applications:

- Telecommunication networks.
- Local Area Networks.
- FTTH.
- CATV networks.
- Active device termination.



## Fixed Fiber Patch Panel

The box body is made of high-quality cold rolled steel, electrostatic spraying, the appearance is beautiful, and the operation is convenient.



### Application

Fixed rack mount patch panel integrates the 3 functions of fiber fusion, storage and distribution. It's used widely in local end main cable net of fiber optic communication area. And suitable for the FTTB, FTTH system.

### Feature

- High quality cold rolled sheet forming, electrostatic powder spraying technology, smooth surface, not easy to rust.
- High strength sheet metal, long-term using is not easy to deformation.
- The edges of metal parts are designed with rounded corners to avoid damage to cables.
- The bottom plate is designed with sliding design, for the patch panel already installed on the cabinet, the wiring can be adjusted without removing the patch panel.

### Product details

- Standard: 19" rack mount dimension.
- With cable lead-in, fixation and protection devices.
- There is enough room for fiber storage, ensure the bending radius is 15 times diameter of the cable.
- Providing relevant accessories (adaptor, pigtails).



### Environment

- The operating and storage temperature: - 45 ~ + 80 °C.
- Tolerable humidity: <95%.
- The voltage resistance between the cable grounding device in the shell and the shell is >3000V(DV), which is tested in 1 minute without breakdown and no flashover.

### Structural parameter

Fiber Capacity	Standard	Length(mm)	Depth(mm)	Height(mm)	Cable entrance	Entrance diameter(mm)	Port count
12	1U	483	223	45	4	20	12
24	1U	483	223	45	4	20	24
48	2U	483	223	90	8	20	48
72	2U	483	223	90	8	20	72
96	3U	483	223	135	8	20	96
144	4U	483	223	177.5	16	20	144

## 19" 1U Sliding Rail Fiber Patch Panel

Sliding Fiber Patch Panel made of quality cold-rolled steel sheet and undergoes static plastic spraying treatment, which can be used to mount SC/LC/FC/ST/E2000/MPO adapter, the box can be installed on the indoor wall and terrace.

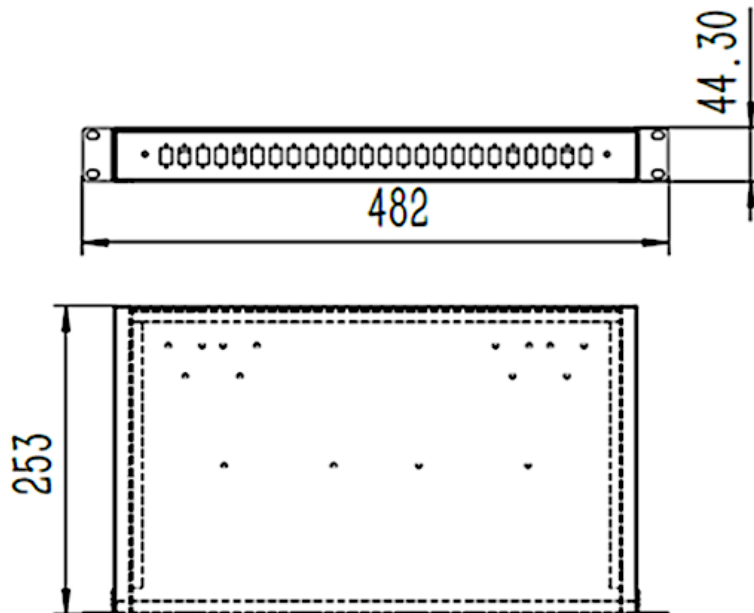
### Application

- Optical Network Frame management system.
- FTTX project.
- Data center.



### Product Details

- Installation: Standard EIA 19" Rack.
- Compliant: TIA/EIA-568-C.3.
- Connectors: SC/ FC/ ST/ LC ST/ E2000/ MPO.
- Dimensions (HxWxD): 482x253x44.3mm.
- Material: CRS Cold rolled steel.



## 19" 1U Sliding Drawer Patch panel

Drawer Fiber Patch Panel made of quality cold-rolled steel sheet and undergoes static plastic spraying treatment, which can be used to mount SC/LC/FC/ST/E2000/MPO adapter, the box can be installed on the indoor wall and terrace.

### Application

- Optical Network Frame management system
- FTTX project.
- Data center.

### Product Details

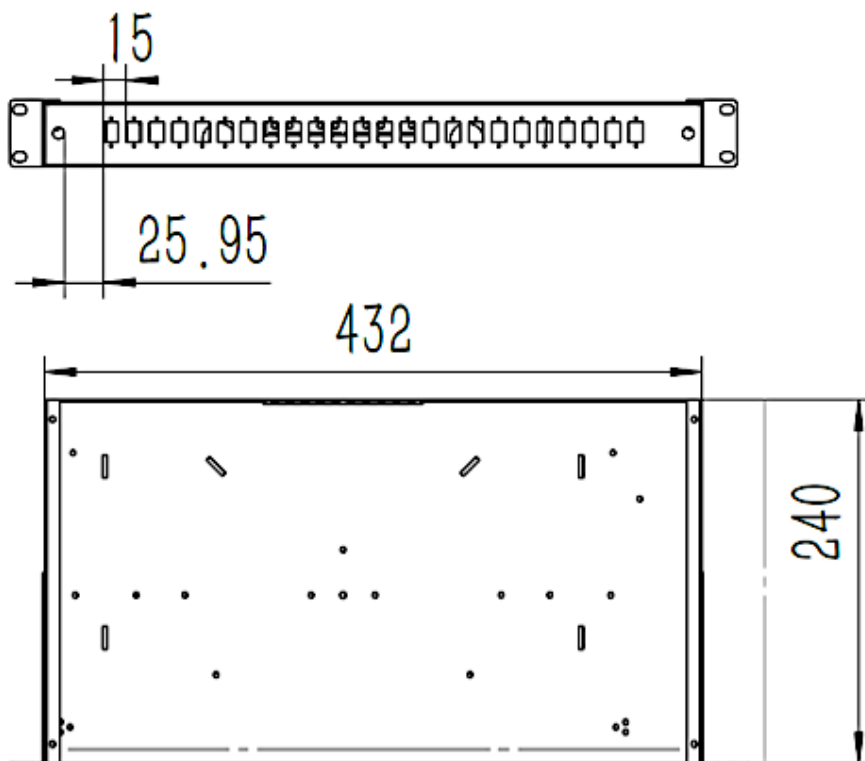
- Installation: Standard EIA 19" Rack.
- Compliant: TIA/EIA-568-C.3.
- Connectors: SC/ FC/ ST/ LC ST/ E2000/ MPO.
- Dimensions (HxWxD): 482\*240\*44.3mm.
- Material: CRS Cold rolled steel.



Unloaded



Full loaded



## 19" 2U Slide Rail Rack Mount Fiber Optic Patch Panel Model-A

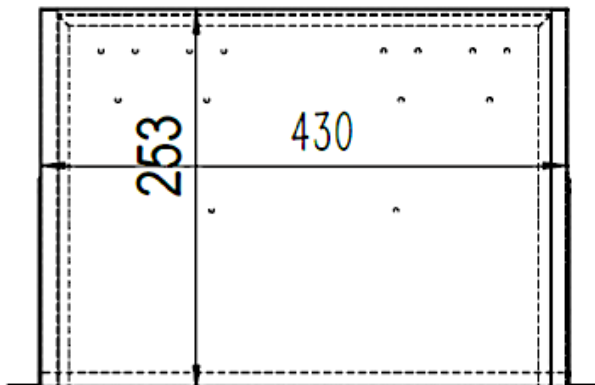
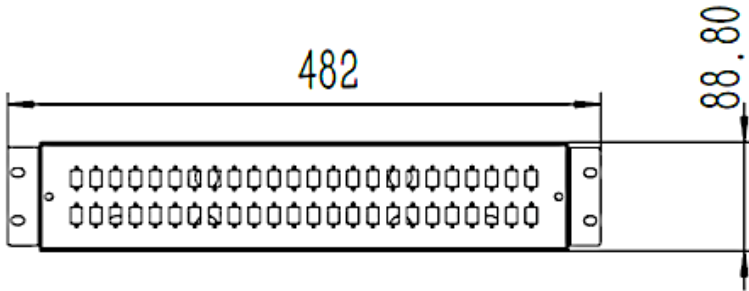
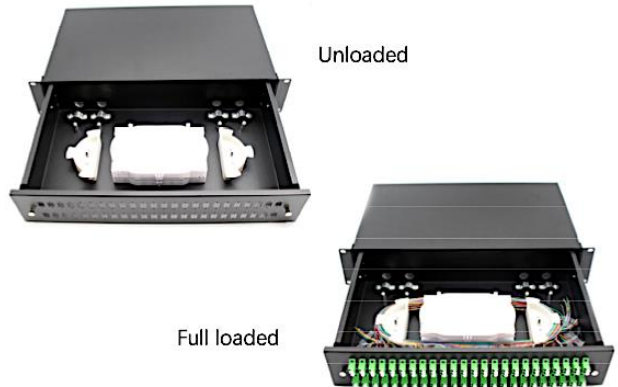
48 Port Sliding Fiber Patch Panel made of quality cold-rolled steel sheet and undergoes static plastic spraying treatment, which can be used to mount SC/LC/FC/ST/E2000/MPO adapter, the box can be installed on the indoor wall and terrace.

### Application

- Optical Network Frame management system.
- FTTX project.
- Data center.

### Product Details:

- Installation: Standard EIA 19" Rack.
- Compliant: TIA/EIA-568-C.3.
- Connectors: SC/ FC/ ST/ LC ST/ E2000/ MPO.
- Dimensions (HxWxD): 482x253x88.8mm.
- Material: CRS Cold rolled steel.



## 19" 2U Slide Rail Rack Mount Patch Panel Model-B

Sliding Fiber Patch Panel made of quality cold-rolled steel sheet and undergoes static plastic spraying treatment, which can be used to mount SC/LC/FC/ST/E2000/MPO adapter, the box can be installed on the indoor wall and terrace.

### Application

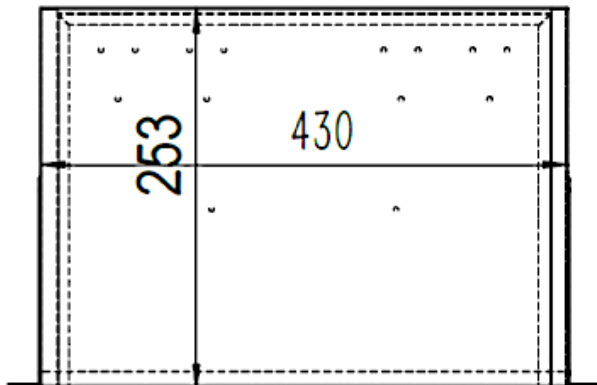
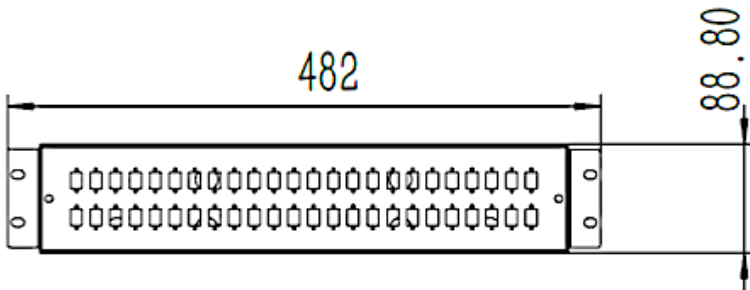
- Optical Network Frame management system.
- FTTX project.
- Data center.

### Product Details:

- Installation: Standard EIA 19" Rack.
- Compliant: TIA/EIA-568-C.3.
- Connectors: SC/ FC/ ST/ LC ST/ E2000/ MPO.
- Dimensions (HxWxD): 485x350x89mm.
- Material: CRS Cold rolled steel.



Full loaded



## 19" 3U Sliding Rail Patch Panel.

Sliding Fiber Patch Panel made of quality cold-rolled steel sheet and undergoes static plastic spraying treatment, which can be used to mount SC/LC/FC/ST/E2000/MPO adapter, the box can be installed on the indoor wall and terrace.

### Application

- Optical Network Frame management system.
- FTTX project.
- Data center.

### Product Details

- Installation: Standard EIA 19" Rack.
- Compliant: TIA/EIA-568-C.3.
- Connectors: SC/ FC/ ST/ LC ST/ E2000/ MPO.
- Dimensions (HxWxD): 482\*240\*44.3mm.
- Material: CRS Cold rolled steel.

Unloaded



Full loaded





## 19" 4U Sliding Rail Fiber Patch Panel

Drawer Fiber Patch Panel made of quality cold-rolled steel sheet and undergoes static plastic spraying treatment, which can be used to mount SC/LC/FC/ST/E2000/MPO adapter, the box can be installed on the indoor wall and terrace.

### Application

Optical Network Frame management system.

FTTX project.

Data center.

### Product Details

- Installation: Standard EIA 19" Rack.
- Compliant: TIA/EIA-568-C.3.
- Connectors: SC/ FC/ ST/ LC ST/ E2000/ MPO.
- Dimensions (HxWxD): 485\*350\*178mm.
- Material: CRS Cold rolled steel.



Description	P/N
Fiber Optic Rotary Patch Panel.	TFPP/R24P1U
Fixed Fiber Optic Patch Panel.	TFPP/F241U
19" 1U Sliding Rail Fiber Patch Panel.	TFPP/SR241U
19" 1U Sliding Drawer Patch panel.	TFPP/SD241U
19" 2U Sliding Rail Fiber Patch Panel Model-A.	TFPP/SR482UA
19" 2U Sliding Rail Fiber Patch Panel Model-B.	TFPP/SR482UB
19" 3U Sliding Rail Patch Panel.	TFPP/SR723U
19" 4U Sliding Rail Fiber Patch Panel.	TFPP/SR964U

# *Fiber Optic Inline Splice Closures*

## 12F-96F Inline Splice Closure (INL-T01)



- Ports: 3 inputs and 3 outputs, applicable to  $\phi 8$ -20mm cables.
- Capacity: max. 24F splice tray capacity, max. 4 pcs trays.
- Fusion Splice Capacity: min. 12F, max. 96F.
- Sealing: screw-and-buckle mechanical sealing structure, one-piece sealing rubber convenient for closure opening, IP68.
- Installation: wall mounting, aerial, duct mounting.
- Performance: meets IEC standards.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T01	396×200×126	2.5~2.7kg	440×200×130	460×420×420 (6 PCS)

## 12F-120F Inline Splice Closure (INL-T02)



- Ports: 3 inputs and 3 outputs, applicable to  $\phi 8$ -20 mm cables and  $\phi 3$  mm round cable.
- Capacity: 24F tray capacity, max 5 splice trays.
- Fusion Splice Capacity: min 12F, max 120F.
- Sealing: hinged structure, buckles and vulcanized silicone rubber strip for seal, IP68.
- Mini PLC Splitter: applicable to 2 pcs 1:8 mini PLC splitters, or 1 pc 1:16 mini PLC splitter
- Adapter: applicable to 18 pcs flangeless SC adapters · Installation: wall mounting, pole mounting, aerial.
- Performance: meets IEC standards.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T02	380×220×155	3.0~3.5kg	300×200×100	400×460×505 (6 PCS)

## 12F-48F Inline Splice Closure (INL-T03)



- Ports: 4 inputs and 4 outputs, applicable to  $\phi 10-15$  mm cables.
- Capacity: maximum 24F tray capacity and 2 splice trays.
- Fusion Splice Capacity: minimum 12F, maximum 48F.
- Sealing: bolt mechanical structure, self-adhesive rubber for squeezing seal, IP68.
- Installation: wall mounting, aerial, duct mounting, underground.
- Performance: meets IEC standards.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T03	423×177×85	2.0~2.5kg	406×205×100	480×430×440 (6 PCS)

## 24F-288F Inline Splice Closure (INL-T04)



- Ports: 3 inputs and 3 outputs, applicable to  $\phi 9-17$  mm cables.
- Capacity: 24F/48F tray capacity, max 6 splice trays.
- Fusion Splice Capacity: minimum 24F, maximum 288F.
- Sealing: bolt mechanical structure, silicone rubber for squeezing seal, IP68.
- Installation: wall mounting, aerial, duct mounting, direct burial.
- Performance: meets IEC standards.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T04	556×258×156	3.5~4.0kg	580×280×190	600×580×410 (4 PCS)

### Up to 1152F Inline Splice Closure for Ribbon (INL-T05)



- Ports: 3 inputs and 3 outputs, applicable to  $\phi$ 10-18 mm cables.
- Capacity:
  - Applicable to bundle as well as ribbon fiber splice trays bundle, maximum 288F: maximum 48F tray capacity and 6 trays.
  - Ribbon, 6-core tray, maximum 576F: maximum 16 pcs tray capacity and 6 trays.
  - Ribbon, 12-core tray, maximum 1152F: maximum 16 pcs tray capacity and 6 trays.
- Sealing: screw structure, silica gel for squeezing seal, IP68.
- Installation: wall mounting, aerial, duct mounting, underground.
- Valve is applicable to the box body for air pressure measurement.
- Performance: meets IEC standards.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T05	540×217×155	2.0~2.5kg	570×235×180	600×580×410 (4 PCS)

### 12-48F Inline Splice Closure for Ribbon (INL-T06)

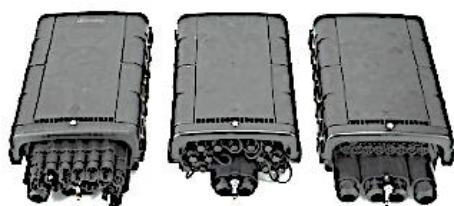


- Ports: 2 inputs and 2 outputs, applicable to  $\phi$ 10-15 mm cables.
- Capacity: maximum 24F tray capacity and 2 splice trays.
- Fusion Splice Capacity: minimum 12F, maximum 48F.
- Sealing: screw structure, self-adhesive rubber for squeezing seal, IP68.
- Installation: wall mounting, aerial, duct mounting, underground.
- Performance: meets IEC standards.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T06	423×177×85	2.0~2.5kg	440×177×93	560×450×515 (15 PCS)



### 96F Inline Splice Closure (INL-T07)



- Ports:
  - INL-T07A: 1 uncut port ( $\phi 10-17.5$  mm), 1 branch port ( $\phi 10-17.5$  mm), 16 drop ports (fast connector,  $\phi 2 \times 3$  mm/ $\phi 3-8$  mm).
  - INL-T07B: 1 uncut port ( $\phi 10-17.5$  mm), 13 pcs TELUNIX hardened connectors.
  - INL-T07C: 1 uncut port ( $\phi 10-17.5$  mm), 2 branch ports ( $\phi 10-17.5$  mm), 16 drop ports (sealing plug design,  $\phi 2 \times 3$  mm).
- Capacity: 24F tray capacity, max 4 splice trays.
- Fusion Splice Capacity: maximum 96F.
- Splitter/Adapter: 2 pcs 1:8 mini splitter, 16 pcs adapters (8207-A/C).
- Sealing: hinged structure, buckles and silicone rubber for seal, IP68, IP55.
- Installation: wall-mounting, pole-mounting.
- Performance: all types meet the IEC standards.
- Plug and play; A splice tray protector is designed to separate the fusion splice and distribution districts.
- Removable wall-mounting kit for saving mounting as well as packing space.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T07-A/B/C	370×210×124	3.0~3.5kg	395×255×165	540×410×375 (4 PCS)

### 60F Inline Splice Closure (INL-T08)



- Ports: 5 cable ports,  $\phi 8-15$ mm, 1 test port, 4 pigtail ports, applicable to the installation and sealing of 24 pcs figure 8 or  $\phi 3$  mm cables.
- Capacity: 5 pcs 12-core splice trays, max. 60F.
- Adaptor/Splitter: each tray is applicable to 1 pc 1:8 mini splitter.
- Sealing: mechanical seal for the box body, re-openable, IP68.
- Installation: pole mounting, wall mounting, aerial, direct burial.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T08	300×210×110	1.9~2.2kg	325×260×130	540×410×375 (10 PCS)

### 24F Aerial Inline Splice Closure (INL-AT09)



- Ports: 4 inlets/outlets,  $\phi$ 10-16mm; 16 drop ports for 2\*3mm cables. Drop cables can be distributed from the lower layer of this closure for higher waterproof performance.
- Capacity: max. 24F.
- Adaptor/Splitter: applicable to 18 pcs SC adaptors and 2 pcs 1:8/ 1:16 splitters.
- Sealing: push-pull mechanical tighteners plus buckles, IP55.
- Installation: aerial.
- Air permeable screw-free design, removable splitters; light and flexible, convenient for operation.
- 2-layer box body, the lower layer for fusion splicing, and the upper one for splitting and distribution.
- Well-structured inner design facilitates the field operation.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-AT09	600×155×95	2.0~3.2kg	630×170×105	650×360×350 (6 PCS)

### 36F Inline Splice Closure (INL-T10)



- Ports: 1 uncut port, 2 branch ports,  $\phi$ 8-17.5mm.
- Capacity: 3 pcs 12-core splice trays, max. 36F.
- Sealing: spiral-style mechanical seal for the box body, IP68.
- Installation: pole/wall/duct mounting, underground.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T10	225×220×90	2.0~3.2kg	320×235×110	495×345×620 (10 PCS)

### 72F-288F Inline Splice Closure (INL-T11 A/B)



- Ports: 2 inlets and 2 outlets,  $\phi 10-20\text{mm}$ .
- Capacity:
  - INL-T11A: 3 pcs 24-core splice trays, max. 72F.
  - INL-T11B: 6 pcs 48-core splice trays, max. 288F.
- Sealing: bolt structure mechanical seal, IP68
- Installation: aerial, bracket mounting, direct burial, handhole, manhole.
- 304 stainless steel sealing bolts ensuring the anti-corrosion performance.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T11A/ INL-T11B	540×210×135	2.5~4.0kg	575×225×140	595×475×470 (6 PCS)

### 144F Inline Splice Closure (INL-T12 A/B)



- Ports: 3 inlets and 3 outlets,  $\phi 10\sim 18\text{mm}$ .
- Capacity:
  - INL-T12A: 6 pcs 24-core splice trays, max. 144F.
  - INL-T12B: (larger shells): single: 6 pcs 48-core splice trays, max. 288F or ribbon: 6-core/ 12-core splice trays, 72/ 36 pcs ribbon fibers, max. 432F.
- Sealing: bolt mechanical structure, self-adhesive rubber for squeezing seal, IP68.
- Installation: wall mounting, duct mounting, aerial, underground.
- Valve is applicable to the box body for air inflation and air pressure measurement.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T12A	537×215×120	3.5~4.0kg	570×235×160	590×490×450 (6 PCS)
INL-T12B	537×215×150	3.5~4.0kg	570×235×180	590×490×570 (6 PCS)



### 288F Inline Splice Closure (INL-T13)



- Ports: 4 inlets and 4 outlets,  $\phi 8-18\text{mm}$ .
- Capacity:
  - bundle: 6 pcs 24-core splice trays, max. 144F.
  - ribbon: max. 288F.
- Sealing: bolt structure mechanical seal, IP68 · Installation: aerial, duct mounting, manhole.
- Inner and outer pressing buckles for cable securing, ensuring cable torsion, tension, pressure and bending performance.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T13	454×201×122	4.0~5.5kg	465×205×130	485×425×420 (6 PCS)

### 96F Horizontal Inline Splice Closure (INL-T14)



- Ports: 2 inlets and 2 outlets,  $\phi 10\sim 17.5\text{mm}$ .
- Capacity: 4 pcs 24-core splice trays, max. 96F.
- Sealing: bolt structure mechanical seal, IP68.
- Installation: aerial, wall mounting, duct mounting, manhole.
- Inner and outer pressing buckles for cable securing, ensuring cable torsion, tension, pressure and bending performance.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T14	454×201×120	2.2~2.8kg	465×180×130	485×380×420 (6 PCS)

### 96F Inline Splice Closure (INL-T15)



- Ports: 2 inlets and 2 outlets,  $\phi 10 \sim 20\text{mm}$ .
- Capacity: 4 pcs 24-core splice trays, max. 96F.
- Sealing: bolt structure mechanical seal, IP68.
- Installation: duct mounting, aerial · 304 stainless steel sealing bolts ensuring the anti-corrosion performance.
- Double pressing buckles for cable securing, ensuring accurate cable placement as well as cable torsion, tension, pressure and bending performance.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T15	420×201×128	2.2~2.7kg	440×220×150	460×460×480 (6 PCS)

### 180F-720F Inline Splice Closure (INL-T16)



- Ports: 3 inlets and 3 outlets, 4 for  $\phi 10\text{-}20\text{mm}$  cables, 2 for  $\phi 16 \sim 28\text{mm}$  cables.
- Capacity:
  - bundle: 5 pcs 36-core splice trays, max. 180F.
  - ribbon: max. 720F.
- Sealing: bolt structure for tightening, IP68.
- Installation: aerial, bracket mounting, duct mounting, manhole, handhole.
- Double pressing buckles for cable securing, ensuring accurate cable placement as well as cable torsion, tension, pressure and bending performance.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T16	648×254×158	6.0~7.0kg	660×280×180	680×580×400 (4 PCS)

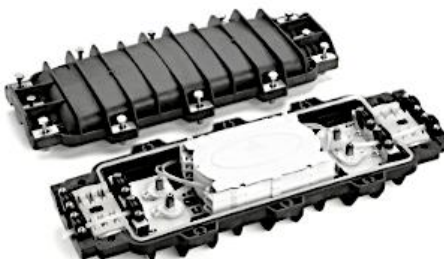
## 96F-288F Horizontal Inline Splice Closure (INL-T17)



- Ports: 2 inlets and 2 outlets,  $\phi 10 \sim 21$ mm.
- Capacity:
  - bundle: 4 pcs 24-core splice trays, max. 96F.
  - ribbon: 4 pcs 72-core splice trays, max. 288.
- Sealing: bolt structure for tightening, IP68.
- Installation: wall mounting, aerial, duct mounting, manhole.
- Integration design of splice tray and cable strain relief to simplify operation steps, more practical.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T17	423×186×100	2.5~3.0kg	660×280×180	680×580×400 (4 PCS)

## 96F-288F Horizontal Inline Splice Closure (INL-T18)



- Ports: 2 inlets and 2 outlets,  $\phi 10 \sim 21$ mm.
- Capacity:
  - bundle: 4 pcs 24-core splice trays, max. 96F.
  - ribbon: 3 pcs 128-core splice trays, max. 384F.
- Sealing: bolt structure for tightening, IP68.
- Installation: wall mounting, aerial, duct mounting, manhole.
- Numerous patents, reopenable, convenient for installation, applicable to both single and ribbon fibers.
- Double pressing buckles for cable securing, ensuring accurate cable placement as well as cable torsion, tension, pressure and bending performance.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
INL-T18	533×209×104	3.4~4.2kg	560×230×130	580×480×430 (4 PCS)

# *Fiber Optic Inline Splice Closures*



## 12F-288F Dome fiber splice closure (DM-T01)



- Ports: 1 uncut port,  $\phi 8-22\text{mm}$ ; 6 branch ports,  $\phi 8-18\text{mm}$ .
- Capacity: max. 24F tray capacity, accommodates max. 12 pcs.
- Fusion Splice Capacity: min. 12F; max. 288F.
- Sealing: rotate-press style mechanical seal ensuring excellent re-seal performance, IP68.
- Installation: wall/pole mounting, aerial, underground.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
DM-T01	610 $\times$ $\phi$ 260mm	5.0~5.5kg	610 $\times$ 275 $\times$ 245	630 $\times$ 570 $\times$ 525 (4 PCS)

## 12F-168F Dome fiber splice closure (DM-T02)



- Ports: 1 uncut port,  $\phi 8-22\text{mm}$ ; 4 branch ports,  $\phi 10-22\text{mm}$ .
- Capacity: max. 12F tray capacity, accommodates max. 14 pcs.
- Fusion Splice Capacity: min. 12F; max. 168F.
- Sealing: rotate-press style mechanical seal ensuring excellent re-seal performance, IP68.
- Installation: wall/pole mounting, aerial, underground.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
DM-T02	495 $\times$ $\phi$ 260mm	4.0~4.5kg	520 $\times$ 275 $\times$ 245	570 $\times$ 540 $\times$ 520 (4 PCS)



## 12F-144F Dome fiber splice closure (DM-T03)



- Ports: 6 cable entries, 2 small ports,  $\phi 8-15\text{mm}$ , 4 big ports,  $\phi 10-23\text{mm}$ .
- Capacity: max. 36F tray capacity, 4 pcs.
- Fusion Splice Capacity: min. 12F; max. 144F.
- Sealing: mechanical seal for housing, heat-shrink seal for ports, IP68.
- Installation: wall/pole mounting, aerial, underground.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
DM-T03	520 $\times$ $\phi$ 245mm	2.0~3.5kg	540 $\times$ 245 $\times$ 210	555 $\times$ 510 $\times$ 675 (4 PCS)

## 24F-360F Dome fiber splice closure (DM-T04)



- Ports: 1 oval port, 7 branch ports, applicable to  $\phi 8-18\text{mm}$  cables.
- Capacity: maximum 360F, 60 pcs 6F splice tray, or 30 pcs 12F tray.
- Fusion Splice Capacity: min. 24F, max. 360F · Sealing: mechanical seal for housing as well as ports, IP68.
- Installation: direct burial, aerial, duct mounting.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
DM-T04	510 $\times$ $\phi$ 300mm	4.0~5.5kg	650 $\times$ 315 $\times$ 280	600 $\times$ 540 $\times$ 675 (4 PCS)

## Splitter- Dome fiber splice closure (DM-TS-05)



- Ports: 1 uncut port, 4 branch ports, applicable to  $\phi 8-18\text{mm}$  cables.
- Capacity: maximum 12F tray capacity and 6 splice trays.
- Adaptor/Splitter: applicable to 1:8 mini splitter, 1 pc per tray.
- Sealing: mechanical seal for housing, heat-shrink seal for ports, IP68.
- Installation: wall mounting, aerial, pole mounting, underground.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
DM-TS-05	395 $\times$ $\phi$ 225mm	2.8~3.2kg	410 $\times$ 235 $\times$ 205	740 $\times$ 440 $\times$ 450 (6 PCS)

## 24-192F Dome fiber splice closure (DM-T06)



- Ports: 4, applicable to  $\phi 8-16\text{mm}$  cables.
- Capacity: single: maximum 36F tray capacity and 4 splice trays; ribbon: maximum 192F, 4F/6F tray capacity.
- Sealing: GPJ09L3-BR: mechanical seal for housing, heat-shrink seal for ports; mechanical seal for both housing and ports.
- Protection Grade: IP68.
- Installation: wall mounting, aerial.

Type	Dimensions(mm)	Weight	Inner Carton (mm)	Outer Carton (mm)
DM-T06	340 $\times$ $\phi$ 160mm	1.0~2.0kg	350 $\times$ 180 $\times$ 160	365 $\times$ 375 $\times$ 510 (6 PCS)

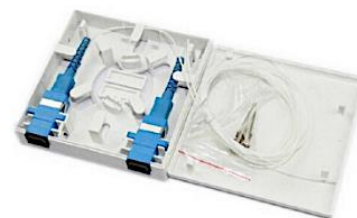
# *Fiber Optic Termination Boxes*



## Indoor Fiber Optic Terminal Box (TXINT/01)

### Features

- Indoor wall-mounting type.
- New ABS materials.
- Max. up 2 pcs of FTTH drop cable or pigtails.
- Manage fiber in a reasonable fiber radius condition.
- Fiber bend radius control more than 40 mm.
- Suitable for the fusion splice or mechanical splice.



### Parameter

<b>Item</b>	TXINT/01
<b>Material</b>	ABS
<b>Port</b>	2
<b>Connector</b>	SC, LC, ST, FC
<b>Color</b>	White
<b>Size</b>	60X60X25mm
<b>Application</b>	FTTH-Indoor
<b>Accessories</b>	Screw & Splice Protect Tube

## Indoor/Outdoor Fiber Optic Terminal Box (TXODT/02)



### Features

- ABS or PC material; Wall-mounted/Pole-mounting.
- Wet-proof, water-proof, dust-proof, anti-aging design for outdoor uses.
- Adaptor slots used: No screws and tools needed for installing adapters.
- First side for adaptor and Pigtail.
- Second side for splicing, cross-connecting, splitter and fiber distribution.
- Cable fixing units provided for fixing the outdoor optical cable.
- Protection Level: IP65.
- Lock provided for extra security.

### Parameter

Items	Specification
<b>Adapter Capacity (Fiber Count)</b>	SC Simplex /LC Duplex 2/4
<b>Dimensions (W*H*D,mm)</b>	167*102*31
<b>Number of Cable Entrance(s) and Exit(s)</b>	1/2
<b>Weight(g)</b>	200g
<b>Optional Accessories</b>	Heat-shrink tubes, Adaptors, Pigtails

## Indoor Fiber Optic Splitter Box (TXINT/03)



<b>Dimension</b>	170*130*40mm (H*W*D)
<b>Cable ports</b>	2 inlet, 8 outlets
<b>Cable diameter</b>	In:12mm, out: 3mm or 2x3mm drop cable
<b>Installation</b>	Wall mounted
<b>Max. Fusion</b>	4 cores (single fiber)
<b>Splice tray</b>	1pc
<b>PLC Splitter</b>	1x2,1x4,1x8 mini splitter
<b>Max. Adapter</b>	8pcs SC simplex without flange
<b>Material</b>	ABS+PC
<b>Color</b>	White

## Indoor Fiber Optic Termination Box (TXINT/04)



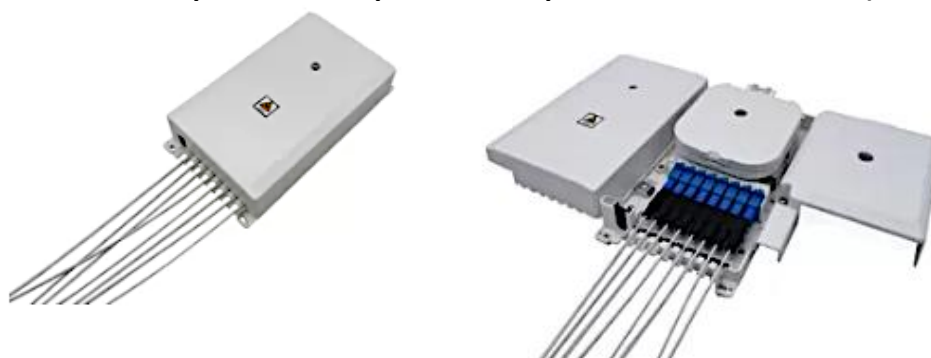
<b>Dimension (W*D*H)</b>	198*112*45mm
<b>Max.Capacity</b>	12 core (dual fiber)
<b>Cable ports</b>	2 in, 12out
<b>Cable diameter</b>	In:Φ16mm; out 2mm
<b>Splice tray quantity</b>	2pcs, each 6single fiber
<b>Material</b>	ABS+PC
<b>Color</b>	Gray

## Indoor Fiber Optic Mid Span Termination Box (TXINT/05)



<b>Dimension (W*D*H)</b>	220*140*55mm
<b>Max.Capacity</b>	16 core (dual fiber)
<b>Cable ports</b>	2 in, 16out
<b>Cable diameter</b>	In:Φ13mm; out 2x5mm
<b>Splitter quantity</b>	2pcs 1x8 or 1pc 1x16 PLC steel tube
<b>Splice tray quantity</b>	2pcs
<b>Adapter</b>	16 SC

## Indoor Fiber Optic Uncut Optical Fiber Splitter Termination Box (TXINT/06)



<b>Dimension</b>	235*125*45 mm (H*W*D)
<b>Cable ports</b>	2in 2out, 8pcs for drop cable
<b>Cable diameter</b>	In:12 mm, out: 2x5mm
<b>Installation</b>	Wall mounted
<b>Max. Fusion</b>	24 single fibers
<b>Splice tray</b>	1 pc splice tray, 1 pc splitter tray, 1 pc tray for fiber management
<b>Material</b>	ABS+PC
<b>Color</b>	Gray/ white
<b>PLC Splitter</b>	1x2,1x4,1x8 mini module plc splitter 0.9mm 1meter
<b>Max. Adapter</b>	8 pcs SC simplex,without flange, shutter type ok.

## Fiber Optical Termination Box Mid Span Anti UV Shocking Resistance Gray IP56 (TXINT/07)



<b>Dimension(mm) W*D*H</b>	210*125*47	<b>Material</b>	ABS+PC
<b>Max splice</b>	20 FO	<b>Cable in/out</b>	4 INLETS
			8 OUTLETS
<b>No. Of fiber adapter</b>	8 pcs of SC	<b>No. Of PLC splitter</b>	2pcs of 1x8 PLC
<b>Color</b>	Light grey	<b>Weight</b>	0.45KG

## Indoor Fiber Optice Uncut Optical Fiber Splitter Termination Box (TXINT/08)



<b>Material:</b>	ABS+PC	<b>Color:</b>	White
<b>Capacity:</b>	2 Core	<b>Adapter:</b>	1piece S/APC
<b>Size:</b>	116*70*25mm	<b>Cable Diameter:</b>	2x5 Mm
<b>Application:</b>	FTTH FTTX FTTB ODN LAN WAN Network	<b>Cable Port:</b>	1in, 1out

## Indoor Fiber Optice Uncut Optical Fiber Splitter Termination Box IP30 (TXINT/09)



<b>Material:</b>	PC+ABS	<b>Color:</b>	White
<b>Max Capacity:</b>	2core	<b>Max. Fusion:</b>	1core
<b>Fiber Type:</b>	Singlemode Multimode	<b>Dimension:</b>	115*80*25mm
<b>Adapter:</b>	2 SC Or 1 LC Duplex	<b>Input Cable Diameter:</b>	5.8mm
		<b>Output Cable Diameter:</b>	2*1.6mm Or 2*3.0mm Flat Cable
		<b>Application:</b>	Ftth Indoor Network

## Indoor Fiber Optic Uncut Optical Fiber Splitter Termination Box IP30 (TXINT/10)



<b>Material:</b>	ABS	<b>Color:</b>	White
<b>Capacity:</b>	2core	<b>Max. Fusion:</b>	2core
<b>Fiber Type:</b>	SM, MM	<b>Dimension:</b>	110*80*27mm
<b>Adapter:</b>	2 SC Or LC Duplex	<b>Cable Type:</b>	Indoor Cable Or Flat Cable
<b>Application:</b>	Ftth Indoor Network	<b>Mounting:</b>	Wall Mount With Screw

## Indoor Fiber Optic Termination Box Cold Rolled Steel Sheet Material (TXINT/11)



<b>Material:</b>	Cold Rolled Steel	<b>Color:</b>	White
<b>Capacity:</b>	24 Fibers	<b>Adapter:</b>	FC SC ST LC
<b>Cable Ports:</b>	4 Pcs	<b>Application:</b>	FTTH FTTX FTTB ODN PON Network
<b>Dimension:</b>	350*300*80mm	<b>Thickness:</b>	1.0mm
<b>Fiber Type:</b>	SM, MM		

# *Networking Cabinets & Server Racks Solutions*

## **Floor Standing Cabinets**

- Floor Standing Cabinets Model TECABFS1.
- Floor Standing Cabinets Model TECABFS2.
- Floor Standing Cabinets Model TECABFS3.
- Floor Standing Cabinets Model TECABFS4.
- Floor Standing Cabinets Model TECABFS5.
- Floor Standing USB Charging Cabinet Model TECABFSUSB.
- Floor Standing PDU Charging Cabinet Model TECABFSPDU.

## **Wall Mounted Cabinets**

- Wall Mounted Model Cabinets TECABWM1.
- Wall Mounted Model Cabinets TECABWM2.
- Wall Mounted Model Cabinets TECABWM3.
- Wall Mounted Model Cabinets TECABWM4.
- Wall Mounted L-Shape Model Cabinets TECABWML5.

## **Street Cabinets**

- Street Cabinet Model IP Rated TESCABB1.
- Street Cabinet High Stand Model IP Rated TESCABHS2.
- Street Cabinet High Stand Model IP Rated TESCABHS3.

## **Open Racks**

- Open Rack TESCABOR1.
- Open Rack TESCABOR2.
- Open Rack TESCABOR3.
- Open Rack TESCABOR4.

## **Fans and Cooling Units**

- 1U Digital Rack Mount Thermostat Without Fan TES1URMTHNF.
- Digital Rack Mount Thermostat with Two Fans TES1URMTH2F.
- Digital Rack Mount Thermostat with Four Fans TES1URMTH4F.
- 1U Rack Mount 4 Fans without Thermostat TES1URMNTH4F.

- 1U Fan Tray Roof Mount 4 Fans without Thermostat TES1UTRMNTH4F.
- Cooling Fan Unit TESCFU.

### ***Shelves***

- Keyboard Sliding Shelve with Brackets TESKSSHB1U.
- Adjustable Sliding Shelve with Brackets TESASSHB1U.
- Fixed Shelve with Brackets TESFSB1U.
- Sliding Shelve without Brackets TESSHNB1U.
- Sliding Shelve with Mounting Ear TESSHME1U.
- Cantilever Shelve A Type 1U TESCSAT1U.
- Cantilever Shelve B Type TESCBT1U.
- Cantilever Shelve C Type TESCCT1U.
- Adjustable Cantilever Shelve D Type TESACSDT1U.

### ***Other Cabinet Accessories***

- Rail L-Shape TSESRLS.
- Blank Panel up to 4U TSEBLPN.
- 1U Blank Panel with Hole TSEBLPN1U.
- 1U Cable Shunting Panel TSEBCSPN.
- Metal Cable Ring TSEMCR.
- Castor TSECASTOR.
- Castor with Braked TSECASTORB.
- Heavy Duty Castor with Braked TSECASTORHDB.
- Adjustable Feet for Racks and Cabinets TSEAFEET.
- Earthing Copper Bar TSEECBAR.
- Earthing Cable TSEEC.
- Small Round Lock TSEERLOK.
- Spring Lock TSESPLOK.
- Moon Shaped Lock TSEMSHLOK.
- Handle Lock TSEHNLOK.



# *Floor Standing Cabinets*

## Floor Standing Cabinets Model TECABFS1

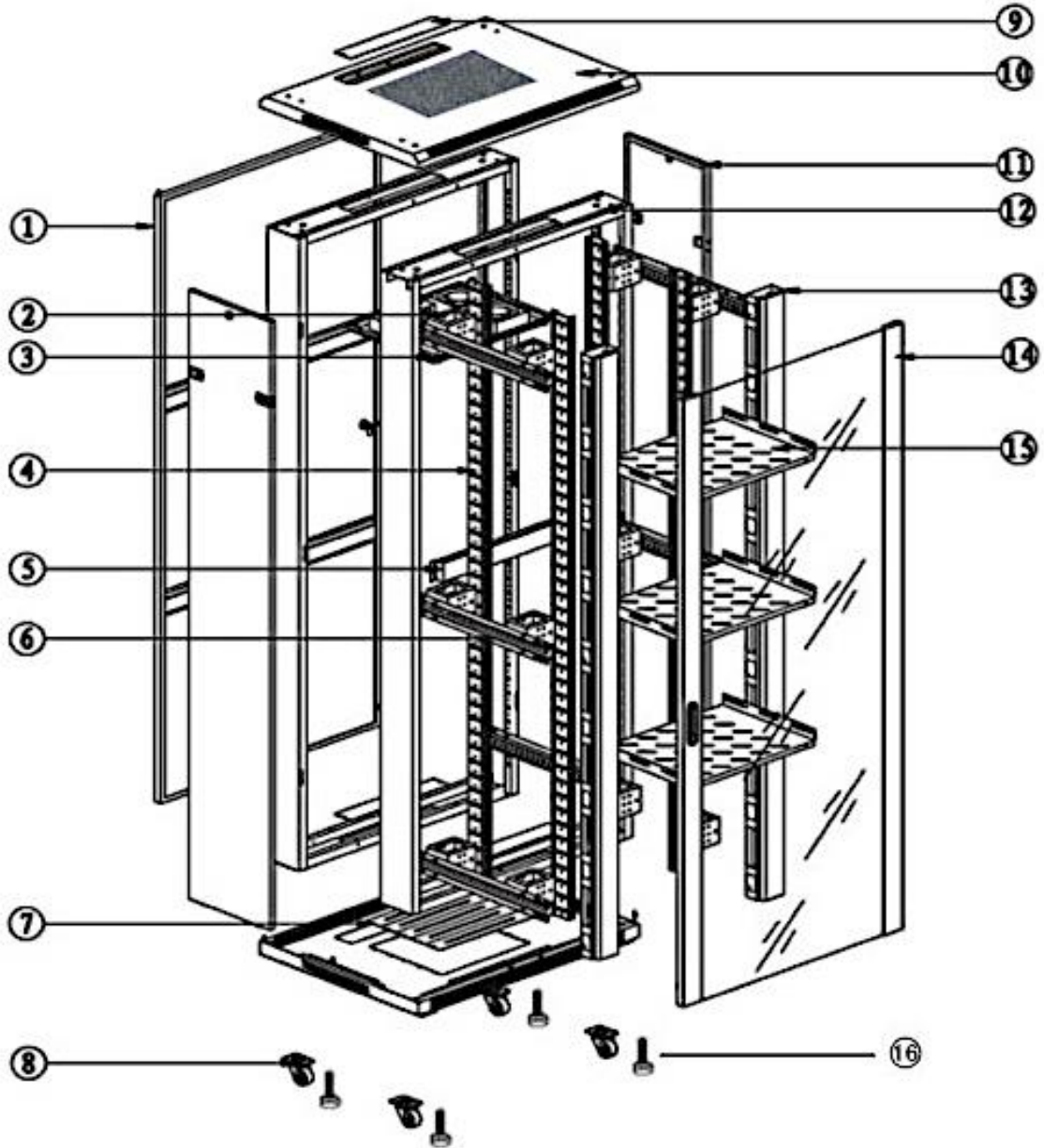
- Classic model, disassembled structure, can be flat packed and easy to transport.
- Tempered glass front door with advanced spring lock, Steel rear door with small round lock.
- Removable side panel with latches, easy to install, optional lock.
- Cable entry on the top and bottom.
- Adjustable feet and castors are available simultaneously.
- S-shaped mounting profile, free to move forward and back.
- Various optional accessories for common using.



<b>Standard</b>	ANS/EIA RS-310-D, IEC297-2, DIN41491, PART1, DIN41491, PART7, ETSI Standard
<b>Material</b>	SPCC quality cold rolled steel Thickness: mounting Profile:2.0mm, Others:1.2mm Tempered glass Thickness:5mm
<b>Loading Capacity</b>	Static loading: 800kg (on the adjustable feet)
<b>Degree of protection</b>	IP20
<b>Surface finish</b>	Degreasing, Pickling, Phosphating, Powder Coated
<b>Product specification</b>	18U-47U
<b>Width</b>	600mm,800mm
<b>Depth</b>	600mm,800mm,900mm,1000mm,1200mm
<b>Colour</b>	Ral9004; Ral9005; Ral7035



## Structure



- |                             |                           |               |                    |
|-----------------------------|---------------------------|---------------|--------------------|
| ① Steel Rear Door           | ② Spacer(for 800mm width) | ③ Fan Tray    | ④ Mounting profile |
| ⑤ Blanking Panel            | ⑥ Mounting Angle          | ⑦ Bottom      | ⑧ Castor           |
| ⑨ Cable Entry Plate         | ⑩ Top                     | ⑪ Side Panel  | ⑫ Frame            |
| ⑬ Vertical Cable Management | ⑭ Front Door              | ⑮ Fixed Shelf | ⑯ Feet             |

### Floor Standing Cabinets Model TECABFS2

- Arc shaped vented front door with hexagonal holes, can turn over 180 turning degree.
- Vented rear door with hexagonal holes.
- Removable side panels with latch, easy to install, optional lock.
- Adjustable cable entry on the top and bottom.
- Welded steel frame for front and back part, flat packing is available.
- Optional plinth to fix cabinet on floor; under base cable entry.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 2.0mm, Others 1:2mm
Degree of Protection	IP20
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	18U-47U
Loading Capacity	Static Loading 800kg (on adjustable feet)
Width	600mm, 800mm
Depth	600mm, 800mm, 900mm,100mm, 1200mm
Colour	RAL7035; 9005; 9004

### Floor Standing Cabinets Model TECABFS3

- Vented front and rear door with excellent ventilation rate above 70%.
- Removable side panels with lock optional.
- Adjustable cable entry on the top and bottom cover.
- Welded steel frame for front and back part, flat packed is available.
- S-shaped mounting profile, free to move forward and back.
- Various optional accessories for common using.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 2.0mm, Others 1:2mm
Degree of Protection	IP20
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	18U-47U
Loading Capacity	Static Loading 800kg (on adjustable feet)
Width	600mm, 800mm
Depth	600mm, 800mm, 900mm, 1000mm, 1200mm
Colour	RAL7035; 9005; 9004

### Floor Standing Cabinets Model TECABFS4

- Loading weight can be 1300kg.
- More stable structure, extend the size of cable tray, fan unit with switch, can change the plug cable by yourself.
- Doors optional.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 2.0mm, Others 1:2mm Tempered Glass Thickness: 500mm
Degree of Protection	IP20
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	18U-47U
Loading Capacity	Static Loading 800kg (on adjustable feet)
Width	600mm, 800mm
Depth	600mm, 800mm, 900mm,100mm, 1200mm
Colour	RAL7035; 9005; 9004



### Floor Standing Cabinets Model TECABFS5

- Arc shaped vented door with MS840 lock, double open vented back door with MS840 lock, side panel (two parts) without locks (it is optional).
- Four pcs mounting profile with U number (S shape, L shape optional).
- With 25 sets screw and nuts, 4pcs JF01 castors(optional), 4pcs adjustable feet with 2 pcs vertical cable tray.
- Four round cable trays on top, two round cable trays in bottom.
- Loading weight can be 1500kg.
- Door assembled way is using the hinges.



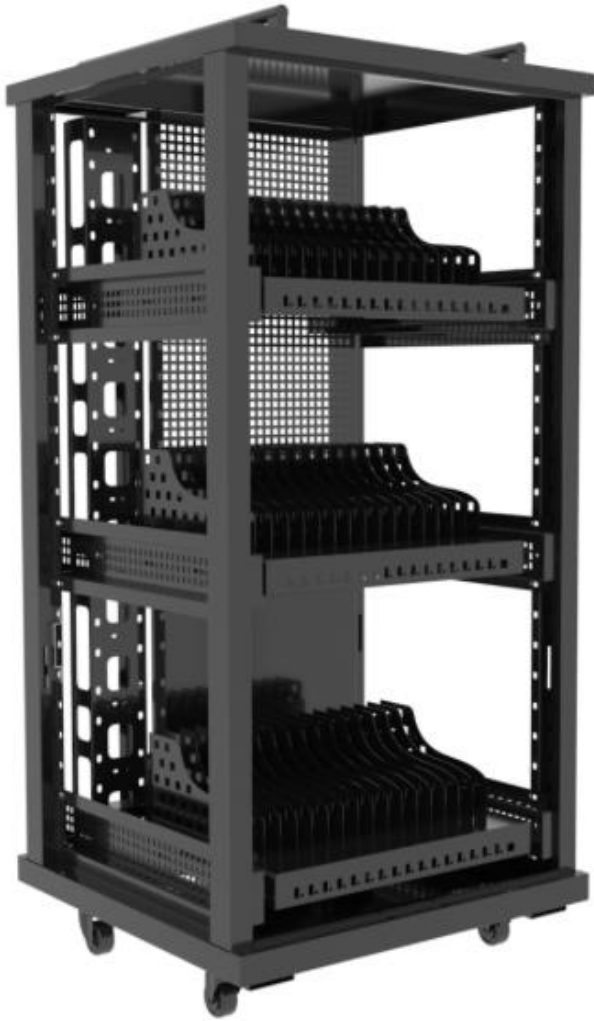




### Floor Standing USB Charging Cabinet Model TECABFSUSB

- SPCC quality cold rolled steel, 1.2mm thickness, with locker for anti-theft  
Doors type optional, two handles on top.
- 15U and 24U is standard height, usually 2~3 tiers, 16pcs in each tier, independent USB charge port.
- Specially designed for school/factory/hospital/educational business use.
- Charge for tablets/notebooks/drawing pads at same time.
- High voltage fuse and power leakage protection design.
- Cooling fan system, two pcs for one tier.
- Recycling charge control for energy save design.
- Led light charge indicators.
- Rolling wheels with braked.





### Floor Standing PDU Charging Cabinet Model TECABFSPDU

- SPCC quality cold rolled steel, 1.2mm thickness, with locker for anti-theft.
- Double mesh front and rear door help to keep cool inside.
- 15U is standard height, usually 2tiers, 16 charge ports in each tier.
- 800mm width is common, two pcs PDU in two sides.
- Specially designed two handles on top for school/factory/hospital/educational business use.
- Charge for tablets to books/drawing pads which with plug at same time.
- High voltage fuse and power leakage protection design.
- Two Cooling fan on the top.
- Recycling charge control for energy save design.
- Rolling wheels with braked.



# *Wall Mounted Cabinets*



### Wall Mounted Model Cabinets TECABWM1

- Welded frame, double section, compatible with 19" standard equipment.
- 5mm tempered glass front door with over 180 turning degree.
- Removable side panel, easy to install and lock optional, second section can open, easy to install equipment.
- Cable entry on the top and bottom, the same as second section.
- L-shaped mounting profile, easy to adjustable on the mounting rail.
- Fan cut out on the top, easy to install fan.
- Second section with four mounting holes, easy to fix on the wall.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Degree of Protection	IP20
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	4U-27U
Loading Capacity	Static Loading 60kg
Width	600mm
Depth	550mm, 800mm
Colour	RAL7035; 9005; 9004

### Wall Mounted Model Cabinets TECABWM2

- Welded frame, single section, compatible with 19" standard equipment.
- 5mm tempered glass front door with over 180 turning degree.
- Removable side panel, easy to install and lock optional.
- Cable entry on the top and bottom.
- L-shaped mounting profile, easy to adjustable on the mounting rail.
- Fan cut out on the top, easy to install fan.
- Installing back panel, easy to fix on the wall.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Degree of Protection	IP20
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	4U-27U
Loading Capacity	Static Loading 60kg
Width	600mm
Depth	450mm, 600mm
Colour	RAL7035; 9005; 9005

### Wall Mounted Model Cabinets TECABWM3

- Steel frame with assistant profile unassembled structure, compatible with 19" standard equipment.
- 5mm tempered glass front door with over 180 turning degree.
- Removable side panel, easy to install and lock optional, second section can open, easy to install equipment.
- Cable entry on the top and bottom, the same as second section.
- L-shaped mounting profile, easy to adjustable on the mounting rail.
- Fan cut out on the top, easy to install fan.
- Second section with four mounting holes, easy to fix on the wall.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Degree of Protection	IP20
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	4U-18U
Loading Capacity	Static Loading 60kg
Width	600mm
Depth	550mm, 600mm
Colour	RAL7035; 9005; 9005

### Wall Mounted Model Cabinets TECABWM4

- Steel frame with assistant profile unassembled structure.
- Single section, compatible with 19" standard equipment.
- 5mm tempered glass front door with over 180 turning degree; Cable entry on the top and bottom.
- L-shaped mounting profile, easy to adjustable on the mounting rail.
- Fan cut out on the top, easy to install fan.
- Back panel with four mounting holes, easy to fix on the wall.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Degree of Protection	IP20
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	4U-18U
Loading Capacity	Static Loading 60kg
Width	600mm
Depth	450mm, 600mm
Colour	RAL7035; 9005; 9005



### Wall Mounted L-Shape Model Cabinets TECABWML5

- The triangle structure could reduce the space and install to corner of the wall,
- Compatible with 19" standard equipment.
- 5mm tempered glass front door with over 180 turning degree.
- Removable side panel, easy to install and lock optional.
- Cable entry on the top and bottom.
- L-shaped mounting profile, easy to adjustable on the mounting rail.
- Fan cut out on the top, easy to install fan.
- Eight Installing holes on the back panel, easy to fix on the wall.



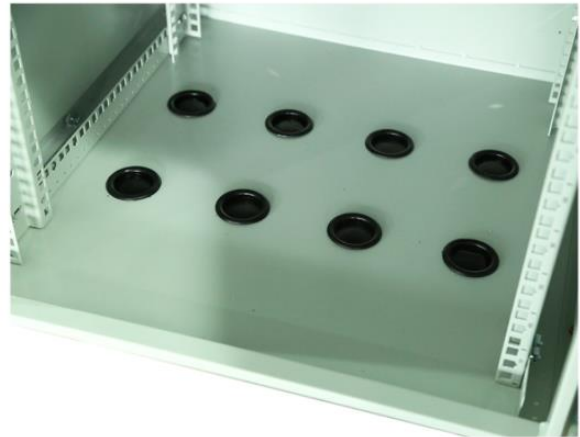
Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Degree of Protection	IP20
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	4U-12U
Loading Capacity	Static Loading 60kg
Width	600mm
Depth	450mm, 600mm
Colour	RAL7035; 9005; 9005

# *Street Cabinets*

**Street Cabinet Model IP Rated TESCABB1**

- Strong and stable framework of cabinet, which has the mounting holes.
- The side panel and rear panel are the double-panel designed, the panels are fixed by the bolt from the inner.
- Between the inside and outside side panel has the inter space, which provides the channel to ventilate and support the enclosure internal heat exchange, and also can reduce the impact of the sunlight illumination.
- The roof panel has the awning all around stretches out to keep from the rain, the bottom of awning has holes to keep the integrity well ventilated, which guarantees the air exchange.
- The bottom has cable entrance with rubber ring.
- The enclosure is the 19" structure, also can install the mounting panel.
- The top loaded with fans to ventilate, two sides panels have the blind holes to output heat.





Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Degree of Protection	IP65
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	6U-18U
Loading Capacity	Static Loading 100kg
Width	600mm
Depth	450mm, 800mm
Colour	RAL7035SN

### Street Cabinet High Stand Model IP Rated TESCABHS1

- Strong and stable framework of cabinet, which has the mounting holes.
- The side panel and rear panel are the double-panel designed, the panels are fixed by the bolt from the inner.
- Between the inside and outside side panel has the inter space, which provides the channel to ventilate and support the enclosure internal heat exchange, and also can reduce the impact of the sunlight illumination.
- The roof panel has the awning all around stretches out to keep from the rain, the bottom of awning has holes to keep the integrity well ventilated, which guarantees the air exchange.
- Luxury lock with three points bolted on the front door more security, side panels and rear panels are fixed by screws.
- The bottom has cable entrance with rubber ring.
- The enclosure is the 19" structure, also can install the mounting panel.
- The top loaded with fans to ventilate, two sides panels have the blind holes to output heat.





Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Degree of Protection	IP65
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	22U- 42U
Loading Capacity	Static Loading 1500kg (on adjustable feet)
Width	600mm, 800mm
Depth	600mm, 800mm
Colour	RAL7035

### Street Cabinet High Stand Model IP Rated TESCABHS3

- Stable structure, precise dimension, capacious inner mounting space.
- Strong frame made of nine-folded profiled, with the mounting holes (integrated size :25mm) on the profiled frame.
- Front door can be opened to 130 degree, which can be opened from left or right side; with 4 pc eye bolt on the top.
- Luxury lock with three points bolted on the front door; side panels and rear panels are fastened by screws, which are easy and convenient to install.
- All-round polyurethane gasket between door and frame, which assure the good sealing performance, and IP55.
- The bottom has 3 sectional panels, which can be moved freely and easy to enter cable.
- M8 earthing pole mounted on the body, mounting panel and door.
- The whole inner mounting panel can be adjusted forward and backward.
- The plinth with 100mm height (optional 200mm).
- Apply to mount various industrial components, controlling equipment and cable equipment.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Degree of Protection	IP55
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated, Static Powdered
Mounting Panel	Cooler RAL2000SN
Body of Enclosure. Frame. Side Panel and Doors	Cooler RAL70335N
Capacity	1800mm, 2000mm, 2200mm
Width	600mm, 800mm, 1000mm, 1200mm
Depth	400mm, 500mm, 600mm, 800mm
Colour	RAL9004; 9005; 7035



# *Open Racks*

## Open Rack TESCABOR1

- Unassembled structure, modular design, easy to assembly.
- Stable and strong structure, easy to fix and maintain.
- 19" inch standard data rack: with 4 post.
- With 4 castors, easy to move.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	18U-47U
Loading Capacity	Static Loading 120kg
Widt	600mm
Depth	600mm, 800mm
Colour	RAL7035; 9005; 9004

## Open Rack TESCABOR2

- Unassembled structure, modular design, easy to assembly.
- Stable and strong structure, easy to fix and maintain.
- 19" inch standard data rack: with 2 post.
- With 4 castor, easy to move.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	18U-47U
Loading Capacity	Static Loading 120kg
Width	600mm
Depth	600mm, 800mm

### Open Rack TESCABOR3

- Unassembled structure, modular design, easy to assembly.
- Stable and strong structure, easy to fix and maintain.
- 19" inch standard data rack: with 2 post.
- Four expansion screws can be fixed on the ground, strong and durable.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	18U-47U
Loading Capacity	Static Loading 120kg
Width	600mm
Depth	600mm, 800mm

### Open Rack TESCABOR4

- Unassembled structure can save space, modular design, easy to assembly.
- Stable and strong structure, easy to fix and maintain.
- 19" inch standard data rack: with 4 post.
- With 4 castors, easy to move; also, can fit on the floor by screws.
- Depth adjustable from 600mm to 1000mm.



Material	SPCC Quality Cold Rolled Steel Thickness: Mounting Panel and Front Door: 2mm Frame and Mounting Angle: 1.5mm, Others 1:2mm
Surface Finish	Degreasing, Pickling, phosphoric, Powder Coated
Product Specification	18U-47U
Loading Capacity	Static Loading 500kg
Width	600mm
Depth	600mm, 1000mm
Colour	RAL7035; 9005; 9004

# *Fans and Cooling Units*

**1U Digital Rack Mount Thermostat Without Fan TES1URMTHNF**



**Digital Rack Mount Thermostat with Two Fans TES1URMTH2F**



**Digital Rack Mount Thermostat with Four Fans TES1URMTH4F**



## 1U Rack Mount 4 Fans without Thermostat TES1URMNTH4F



## 1U Fan Tray Roof Mount 4 Fans without Thermostat TES1UTRMNTH4F



## Cooling Fan Unit TESCFU





# *Shelves*

**Keyboard Sliding Shelf with Brackets TESKSSHB1U**



**Adjustable Sliding Shelf with Brackets TESASSHB1U**



**Fixed Shelf with Brackets TESFSB1U**



**Sliding Shelf without Brackets TESSHNB1U**



**Sliding Shelf with Mounting Ear TESSHME1U**



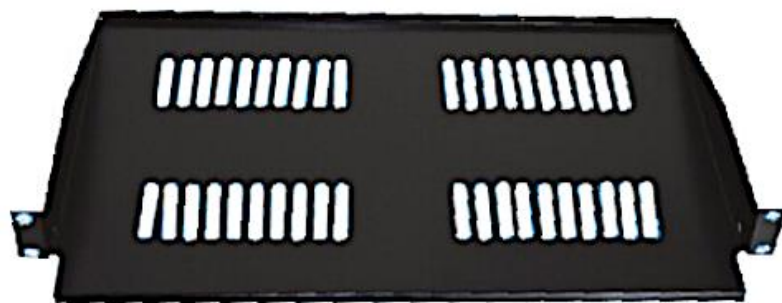
**Cantilever Shelf A Type 1U TESCSAT1U**



**Cantilever Shelf B Type TESCBT1U**



**Cantilever Shelf C Type TESCCT1U**



**Adjustable Cantilever Shelf D Type TESACSDT1U**



# *Other Cabinet Accessories*

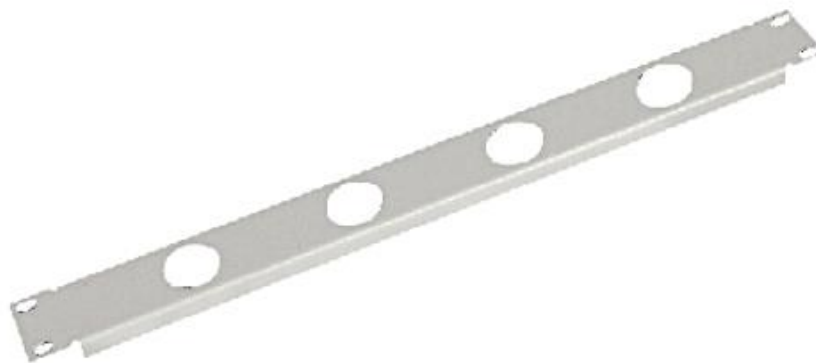
**Rail L-Shape TSESRLS**



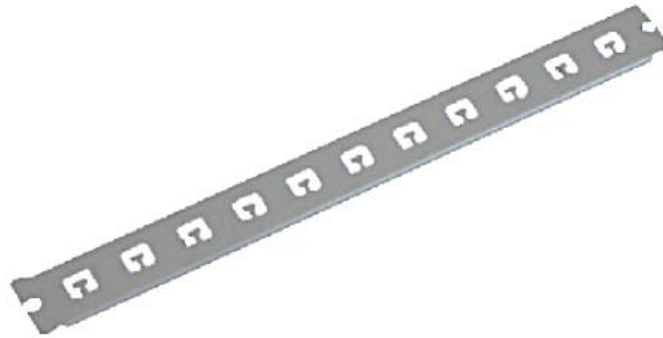
**Blank Panel up to 4U TSEBLPN**



**1U Blank Panel with Hole TSEBLPN1U**



## 1U Cable Shunting Panel TSEBCSPN



## Metal Cable Ring TSEMCR



## Castor TSECASTOR



**Castor with Braked TSECASTORB**



**Heavy Duty Castor with Braked TSECASTORHDB**



**Adjustable Feet for Racks and Cabinets TSEAFEET**





## Earthing Copper Bar TSEECBAR



## Earthing Cable TSEEC



## Small Round Lock TSEERLOK



## Spring Lock TSESPLOK



## Moon Shaped Lock TSEMSHLOK



## Handle Lock TSEHNLOK





TELUNIX S.R.O

Gogolova 18, 851 01 Bratislava,  
Slovakia.

E: [SALES@TELUNIX.COM](mailto:SALES@TELUNIX.COM)