



# World-Wide Connection

Honorary Quality, Customer Oriented and Strivers Founded

# Part 1



## Company Profile

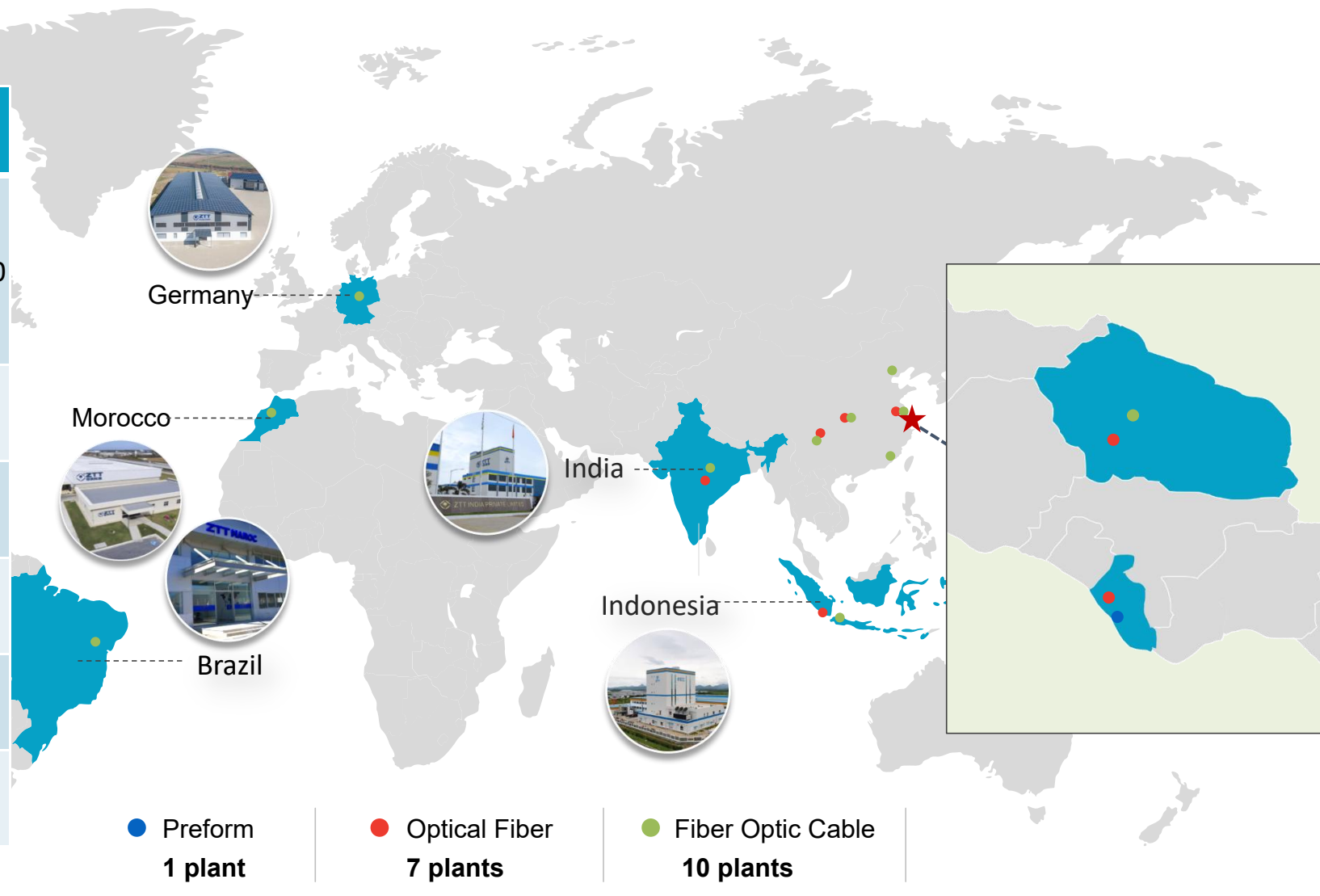
Company Introduction, Global Layout

# ZTT Preform-Fiber-Optical Cable Industry Global Layout



Unit: fiber km

Area	Factory Information	Annual Capacity
Overseas	Brazil: ZTT do Brasil Ltda	1,000,000
	Indonesia: PT ZTT Cable Indonesia	1,000,000
	India: ZTT India Private Limited	1,300,000
	Morocco: ZTT Morocco Private Limited	5,000,000
	Germany: ZTT Europe GmbH	500,000
China	5 production base: Nantong, Sichuan, Yancheng, Henan, Guangdong	50,000,000



● Preform  
1 plant

● Optical Fiber  
7 plants

● Fiber Optic Cable  
10 plants

# Mission, Vision, Values and History



## Mission

Connecting Wonderful Life with  
Optic-Electric Network

## Vision

Creating Value for Customers,  
Employees and the Society

## Values

Honorary Quality, Customer  
Oriented and Strivers Founded

1992	2009	2010	2015	2018
<p><b>Special Cable Workshop</b></p> <ul style="list-style-type: none"><li>■ Special Outdoor Cable</li><li>■ Oversea Market</li></ul> 	<p><b>Coventional Cable Workshop</b></p> <ul style="list-style-type: none"><li>■ Flame Retardant, Micro Cable, Figure 8 and etc.</li><li>■ Oversea Market and China Non-Operator Market</li></ul> 	<p><b>FTTX Cable Workshop</b></p> <p>FTTx Cable Global Market</p> 	<p><b>Smart Workshop</b></p> <p>Intelligent Production of Conventional Cable China Operators Market</p> 	<p><b>Optical Cable Factory</b></p> <p>Merged and established "Optical Cable Factory"</p> 

1992

Established

13.4 \$Million

Sales revenue in 2022

1,100<sup>+</sup>

Employees

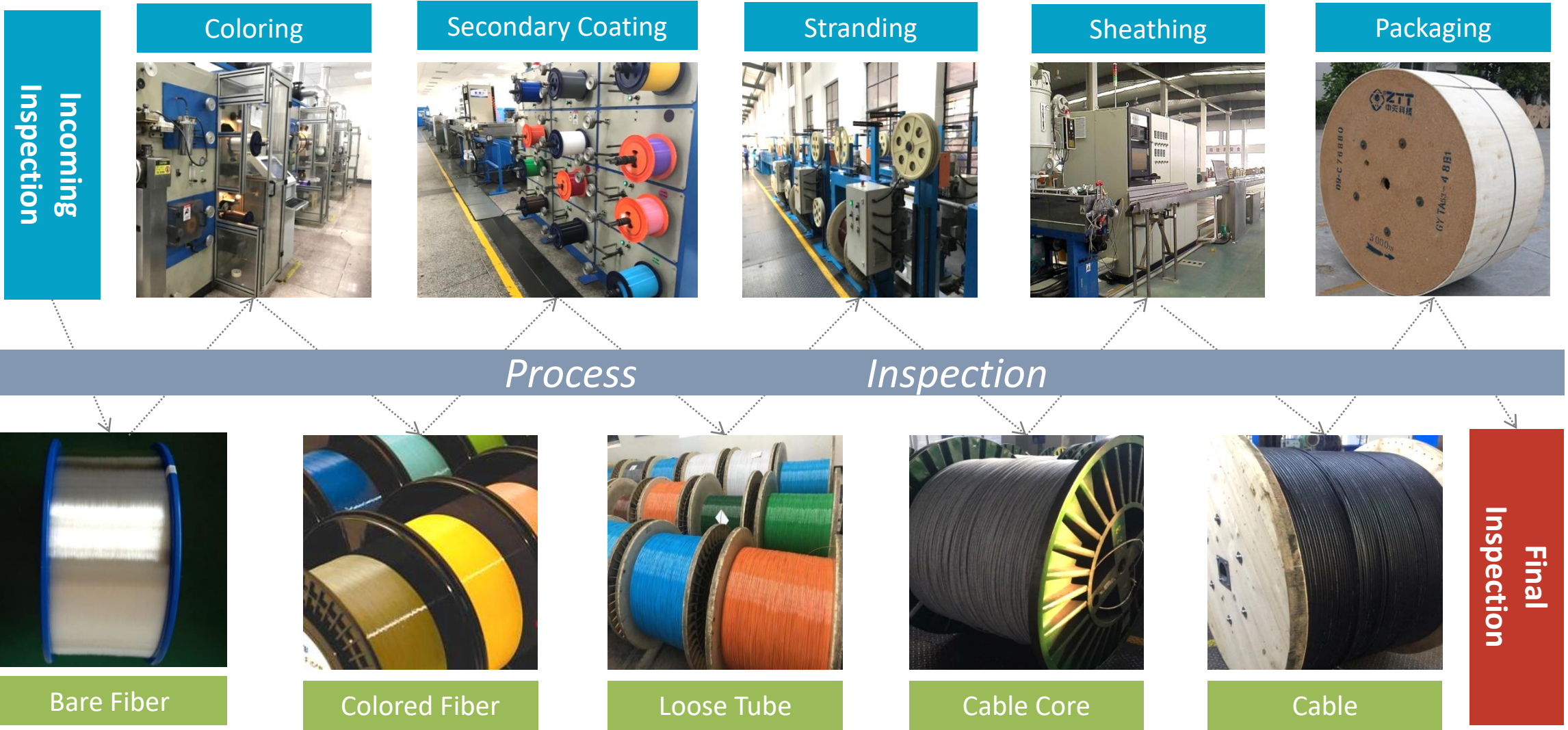
Top10

Global Enterprises  
(Optical Fiber and Cable)

# A Complete Industrial Chain



# Production Process-Whole Process Quality Control



# Manufacture Equipment



**Industry-leading Production Equipment:** More than 413 sets of various types of optical cable manufacture equipment, and the key equipment can reach the advanced level of the domestic and international industries, providing a guarantee for product diversification.



Coloring Machine



Secondary Coating



Stranding Line



Sheathing Line



High-speed LED Coloring Machine



High-speed Fiber Ribbon Twisting Cage



Steel Wire Stranding



Sheath automatic storage and collection system



# Intelligent Manufacture



## Automated Logistics System of Entire Process



- ✓ Real-time Production Scheduling
- ✓ Automatic Material Delivery
- ✓ Production Information Traceability

## Centralized Scheduling Platform



- ✓ Environmental Condition Monitor
- ✓ Energy Consumption Monitor
- ✓ After-sales Service Automation

# ZTT Quality System and Product Certificates



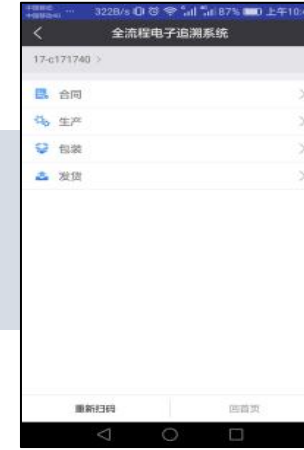
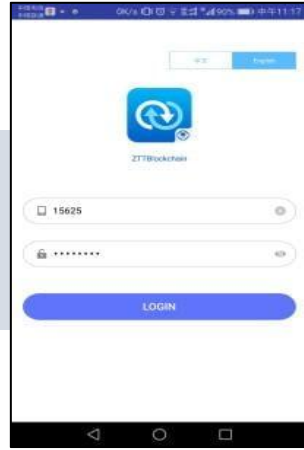
ZTT provides high quality products that meet international standards

ISO9001, ISO14001, ISO45001, CNAS, TL 9000

Cooperative Laboratory



# Products Traceability



Contract	Process	Material	Inspection	Packaging	Delivery Info
19-C707933 > 合同 >	19-C707933 > 生产 > 3.成缆 >	19-C707933 > 原材料 > 阻水膏	生产 > 3.成缆 > 检测信息 >	19-C707933 > 包装 > 喷头信息	19-C707933 > 发货 >
合同号	成缆	阻水膏	B管B光纤检测	喷头信息	扣运单号 FHPT201900703
客户 中国移动	生产机台	自粘胶纸	检测项	编号	物流信息 >
型号	生产人员	检测项	检测项	净重(kg)	捆收时间 2019-01-28
数量	生产日期	阻水膏密度 0.93	检测项		发货时间 2019-01-27
计量单位	成缆	批次号 Z190111XC17560	检测项		地址 江苏省南京市溧水区东屏镇金(开)屏路中国移动江苏大区物流中心
业务员	生产机台	取水时间 0.4	检测项		电话 18851629508
交货日期	生产人员	材料名称 阻水膏	检测项		前机电话
收货人	生产日期	针入度取40mm底 158.0	检测项		运输车辆
收货地址		材料名称 合塔	检测项		承运商 江苏物流
已交货数量		残点 170	检测项		
未交货数量		车化液导电 50	检测项		
省份			检测项		

Contract Info
<ul style="list-style-type: none"> <li>Contract No.</li> <li>Customer</li> <li>Quantity</li> <li>Delivery Date</li> <li>.....</li> </ul>

Process Info
<ul style="list-style-type: none"> <li>Production Date</li> <li>Operator</li> <li>Operation Line</li> <li>.....</li> </ul>

Inspection Info
<ul style="list-style-type: none"> <li>Fiber Length</li> <li>Attenuation</li> <li>Diameter</li> <li>Thickness</li> <li>.....</li> </ul>

# ZTT Test Laboratory Capability



ZTT has comprehensive test capability ,obtained CNAS and German VDE TDAP certification. And also has close cooperation with authoritative test laboratory domestic and abroad.



CNAS / ILAC  
Certification (L7085)



VDE TDAP  
Certification



Collaboratory



# ZTT Test Laboratory Capability



## Mechanical Test Instrument

Tensile, crush, torsion, bending machines and etc., monitoring the change of attenuation and fiber strain according to IEC 60794-1-21



## Optical Fiber Analysis System

With the accurate control system, test fiber dimension, transmit, mechanical and environmental characteristics according to IEC 60793



## Temperature Cycling Chamber

The temperature cycling test for environmental properties



## Fire Resistance Test

Check optical cable fire resistance and flame retardant properties according to IEC 60331/60332/61034/60754....

## Part 2



### Product Solutions

Optical Fibre, Cable, and New Products.

# Optical fiber preform (The pearl of the communication industry crown)



The only "super large size fully synthetic optical fiber preform" with complete independent intellectual property rights.

**VAD(core) +OVD(cladding)**

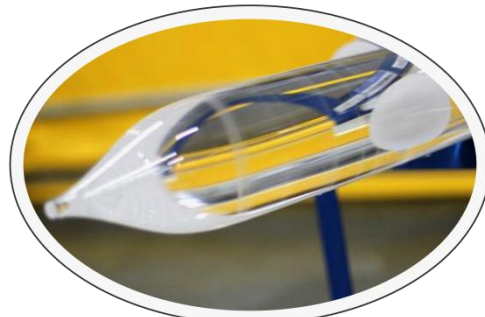


## Fiber Type

- TELE WEAVE-Premium™G.652D and low loss fiber
- TELE WEAVE-UBIF™+G.657A1/A2/B3
- TELE WEAVE-FOCUS™ +G.655
- TELE WEAVE-TERA™ + G.654
- TELE WEAVE-BROAD™ + OM2/OM3/OM4
- TELE WEAVE-SLIM™ + Small size 200um and 180um



silicon tetrachloride



preform

# Optical Fiber Productions for 5G network



- Compatible with G.652D and G.657A1
- Similar MFD with G.652D

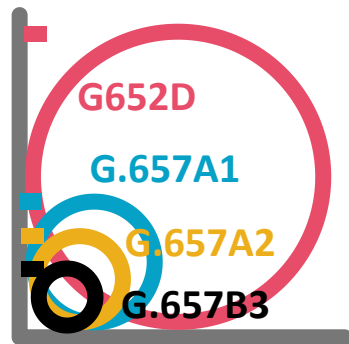
**Compatible fiber**



G.654E  
High speed, high capacity data transmission  
**TELE WEAVE-TERA™**



**UBIF® Bend insensitive fiber**



**TELE WEAVE-SLIM™**

To achieve lighter weight, smaller outer diameter, and larger core count.

- 245um
- 200um
- 180um



**TELE WEAVE-BROAD™**

Complete range of M M fiber  
OM2,OM3,OM4 suitable  
For Data center and indoor application

*Develop various special fibers for different applications.*



# Optical Cable Products Series

## Full Range Products Servicing 5G New Infrastructure Strategic Planning



### Conventional Optical Cable

- Duct cable
- Aerial cable
- Direct buried cable

### FTTx System Cable

- Bunched cable
- OPLC cable
- Micro bundle cable
- FTTx cable
- Branch cable

### Special Optical Cable

- Ribbon cable
- Under-water cable
- 3-strand cable
- Figure 8 cable
- ADSS cable
- Fire-resistant cable
- All-dry/semi-dry cable
- Blowing fiber or cable
- Anti-rodent /termite cable
- One fiber one tube cable

# Optical Cable Products Series-ADSS



## Single Champion Product

—the Ministry of Industry and Information Technology



### Full Range of Products

Special application scenarios such as ultra-low loss, corrosion resistance, light weight, enhanced type, and full dry type.



### No. 1 Market Share

No. 1 in the global market share for 20 consecutive years, with a cumulative operation of over 600,000 kilometers



### International Standard:

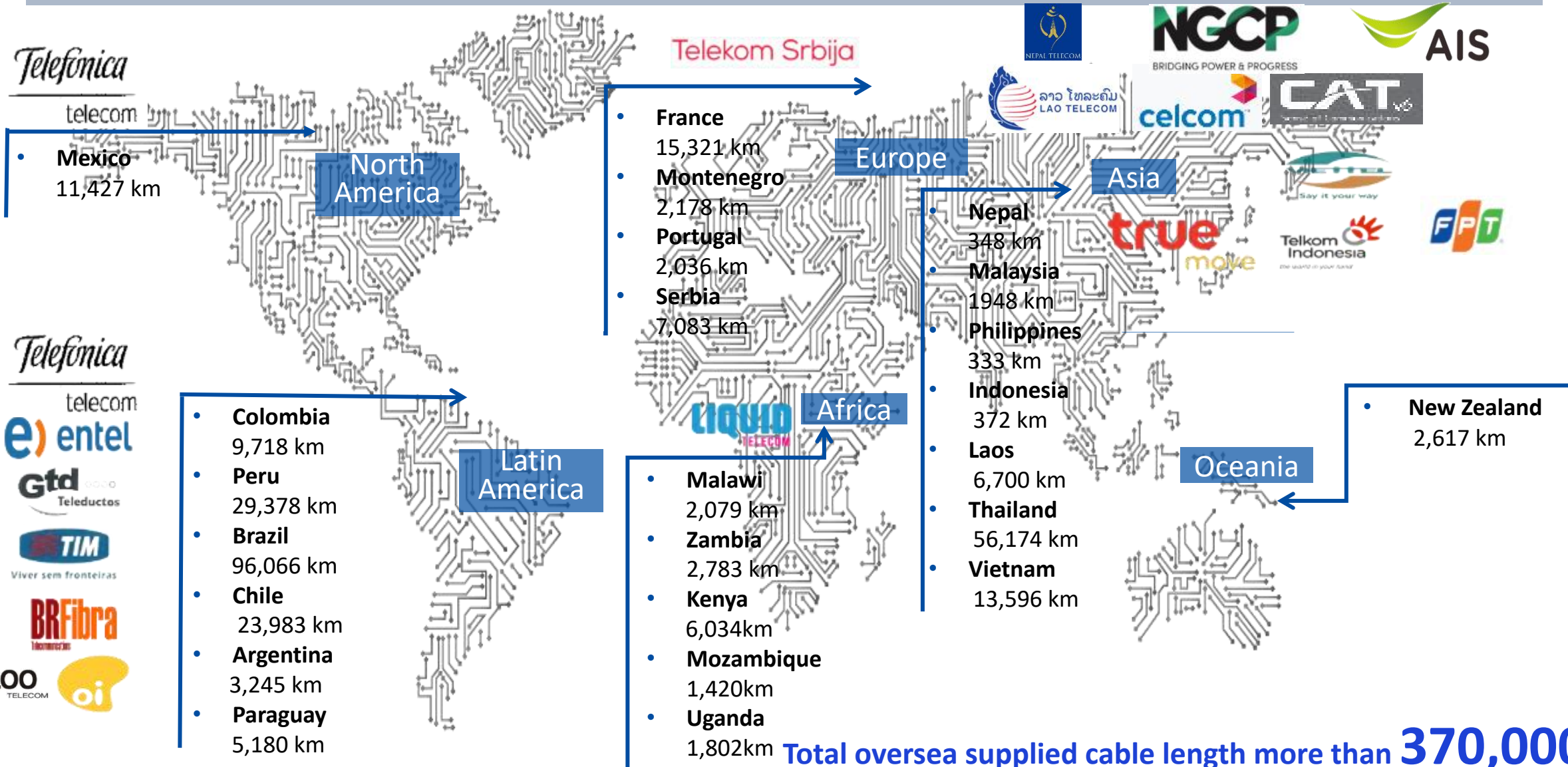
IEEE std 1222-2019 "Testing and Performance Standards for All-Dielectric Self-Supporting Overhead (ADSS) Optical Cables Used along Power Lines", the only domestic participating unit.



### Typical Case

- Supply the Qinghai-Tibet  $\pm 400\text{kV}$  DC interconnection project of the State Grid "Electric Power Road", and climb the "Roof of the World" along the "Electric Power Road";
- Use corrosion-resistant ADSS in the salt lake area to overcome major technical problems in the industry;
- The first self-twisted light-duty all-dielectric self-supporting optical cable is applied to domestic and foreign markets, greatly improving the operating safety factor.

# ADSS Typical Sales Reference



# ZTT Outdoor Optical Cable Products-Legend connect™ High Fiber Density Cable



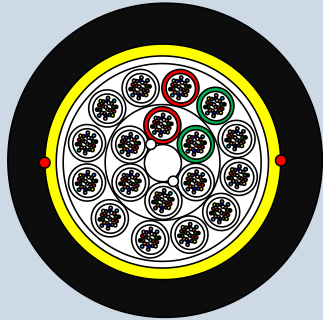
- Common loose tube;
- Fiber density of conventional duct cable  $\leq 1.5f/mm^2$
- Reduce tube dia. to fiber density around  $5f/mm^2$  applicable for air blowing installation



$\leq 288F$

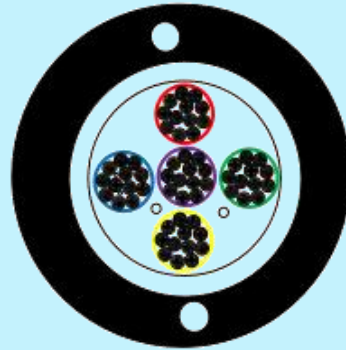
Limited: 288F/8.2mm  
 $5.5f/mm^2$

- Common loose tube;
- Improve fiber density with 24F/tube and reduce fiber diameter



$\leq 432F$

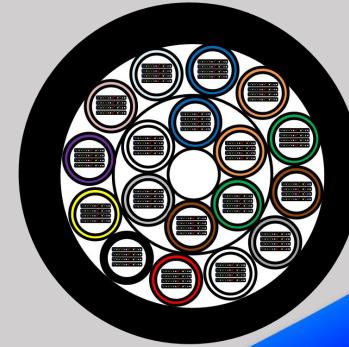
Limited: 432F/9.3mm  
 $6.3f/mm^2$



$\leq 864F$

- Micro bundle
- Small size fiber

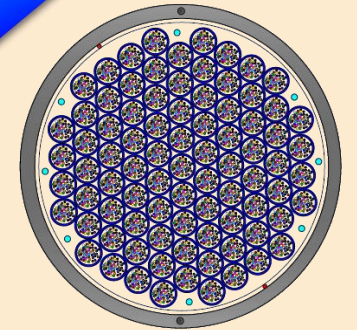
Limited: 864F/20.0mm  
 $2.8f/mm^2$



$\leq 2592F$

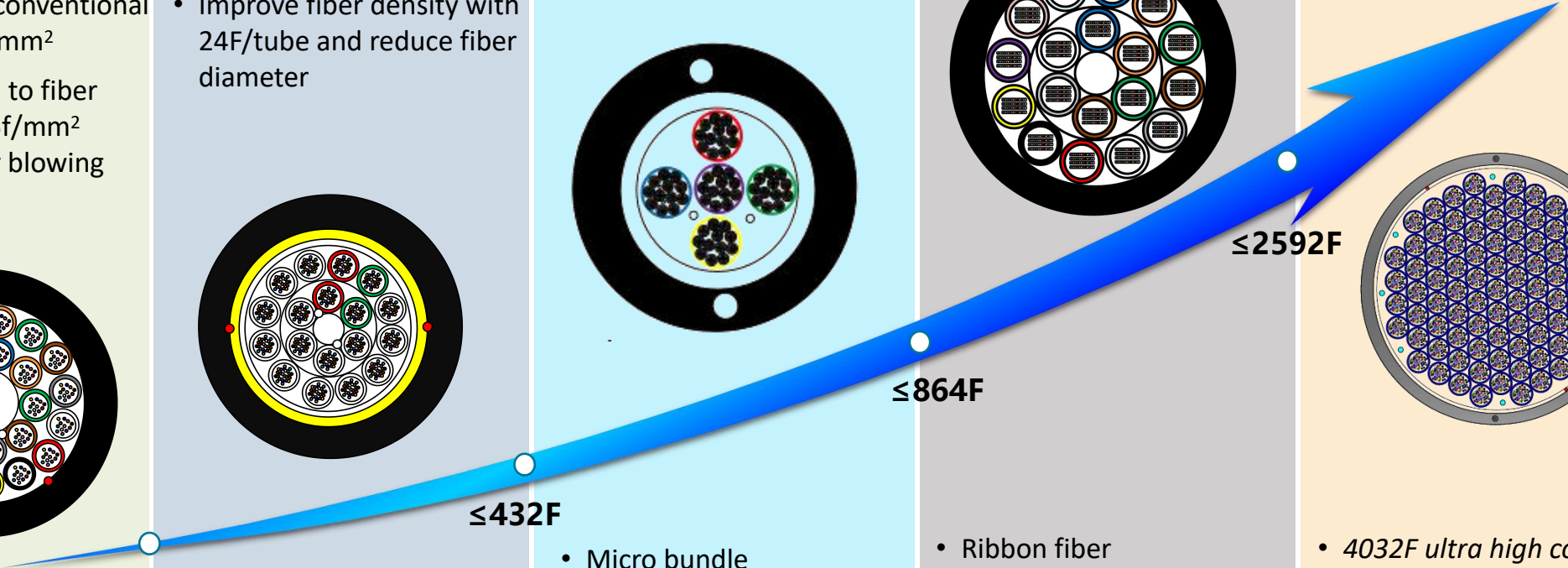
- Ribbon fiber
- Max up to 2592F;

Limited: 2592F/39.0mm  
 $2.2f/mm^2$



- 4032F ultra high count
- Micro bundle subunit

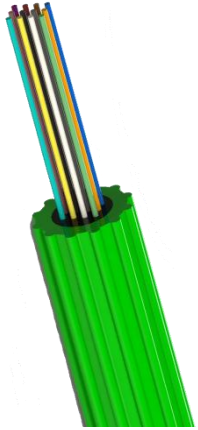
Limited: 4032F/32.0mm  
 $5.0f/mm^2$



# Optical Cable Products Series-BlownElite® Blowing Type



## Total Solution



### Blowing Fiber Unit

- Small size and light weight
- Suitable blown in micro duct  
OD/ID 5/3.5mm
- With air slot to improve blowing efficiency
- Fiber count up to 12.



### Center Tube Cable

- Good mechanical and environmental performance.
- Excellent blowing performance
- Fiber count up to 24.



### Stranding Cable

- More flexible, small size and light weight.
- Option 200um or 250um diameter fiber
- High blowing speed and efficiency.
- Fiber count up to 576.

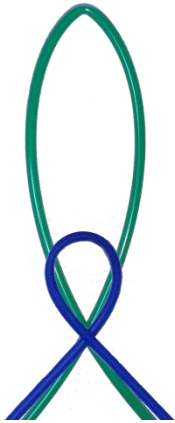


### Blowing Duct and Accessories

- Customization provide in package with micro duct, connector, micro duct splitter, micro cable joint box etc.



# Optical Cable Products Series-Easy Tear™ Micro Bundle Type



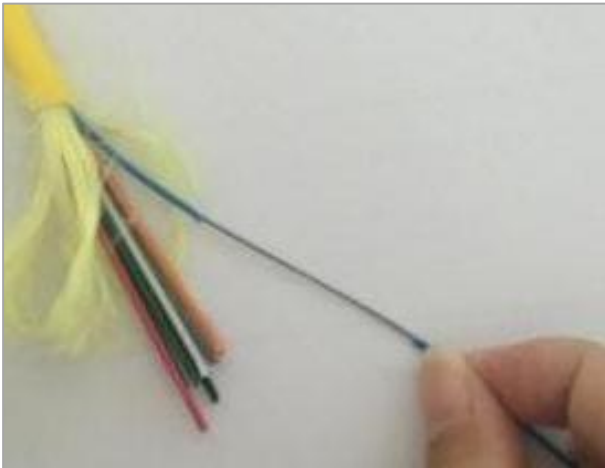
Common PBT Tube

Min Kink Diameter  $\geq 30\text{mm}$

5G UltraFlex Tube

Min Kink Diameter  $\leq 10\text{mm}$

Not need any tube Stripping tools



## Easy Tear™ Micro Bundle Cable



Distribution Type



Distribution Type



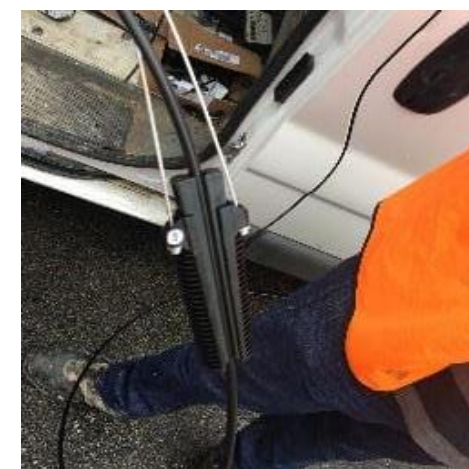
ADSS or Duct Type

- Micro tube could be easy sheared with two fingers;
- Gel-filled or Gel-free for micro tube;
- Micro tube excellent flexible and convenient for installation;
- All-dielectric structure with good fire resistance and flame retardant property;
- Applicable for duct, indoor and self-supporting installation;
- Suitable for large cores with micro bundle, up to 864 fibers.

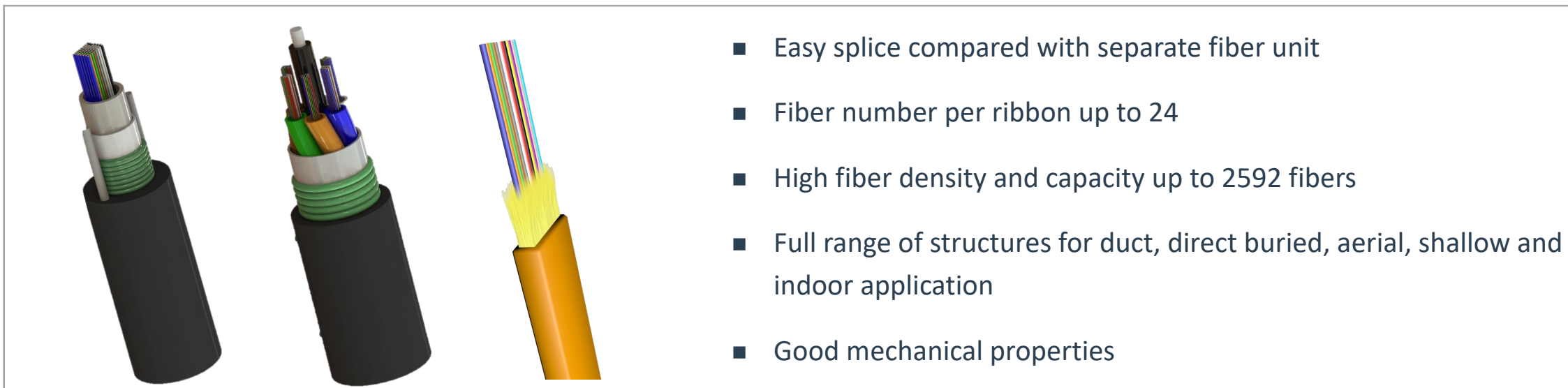
# Optical Cable Products Series-Easy Tear™ Micro Bundle Type



## Micro Module Cable Installation Test Witness in France 2018



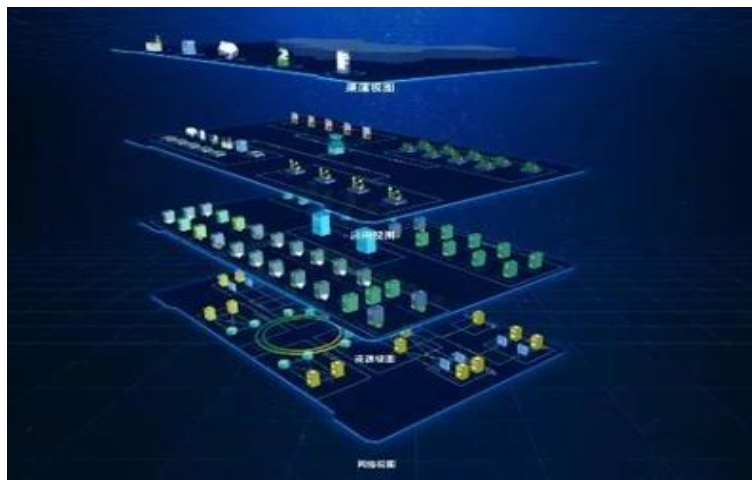
# ZTT Outdoor Optical Cable Products-Ribbon Optical Cable



Data Center



Intelligent Building System

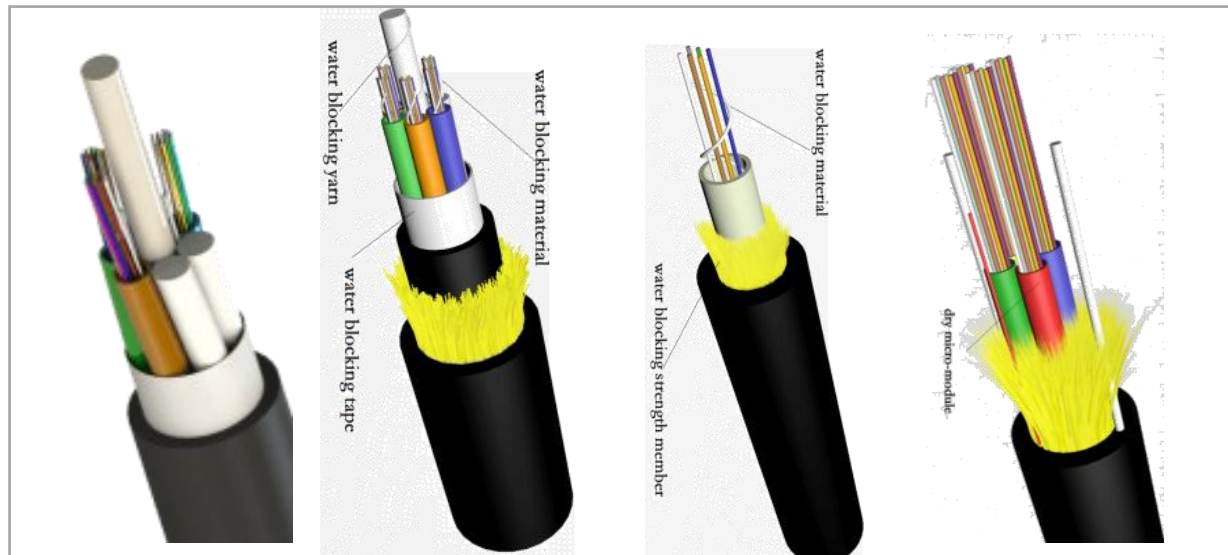


LAN





# Optical Cable Products Series-Clean Hand® All-Dry Cable



**All Dry Ribbon Cable**

- Fibers per ribbon up to 24
- High fiber density and capacity up to 576 fibers

- Reduce paper towels, rags, flux and other materials for cleaning gel;
- Solve the problem of cable gel spill under vertical wiring conditions, even the problem of fiber leakage;
- Solve the problem of compatibility between cable materials and gel;
- ZTT successfully developed a series of all-dry cables: duct, direct buried, ADSS, air-blowing, micro bundle

# Optical Cable Products Series-Ballet™ Flexible Tube Cable



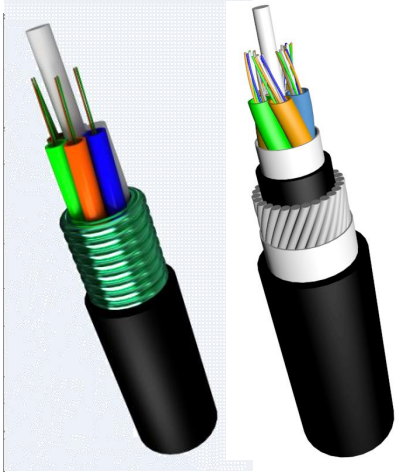
The flexible tube could be stored in the joint box instead of only fibers to reduce fiber splice and installation time, easy to future maintenance.



Min tube bend radius  $\leq 2.5 \times$  tube OD

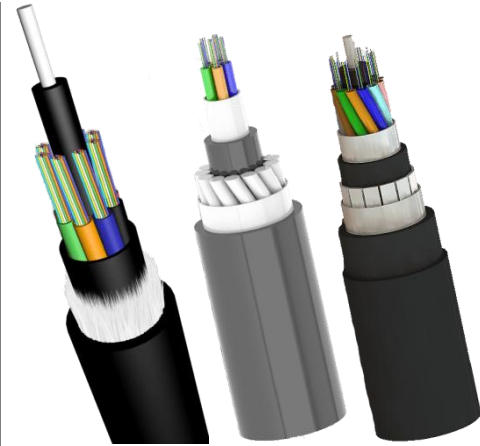
Improve the production processes and tube material etc., to provide optical fiber cable products with better softness and flexibility.

# Optical Cable Products Series-Bite guard® Anti-Rodent Type



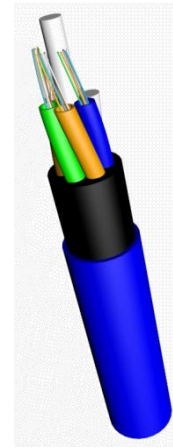
## Steel Tape/Wire Armor

- Provide excellent anti-rodent function especially steel wire
- Metal armor with larger weight
- Metal material easily oxidized



## Glass Yarn/Tape/Rod Armor

- Provide excellent anti-rodent with enough thickness layer
- Non-metallic armor with light weight



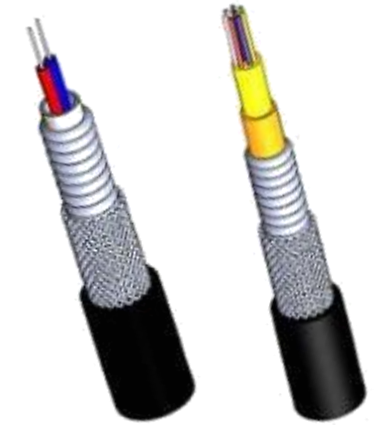
## Nylon sheathed

- Provide excellent anti-termite function with nylon sheath.



## Chemical Additive

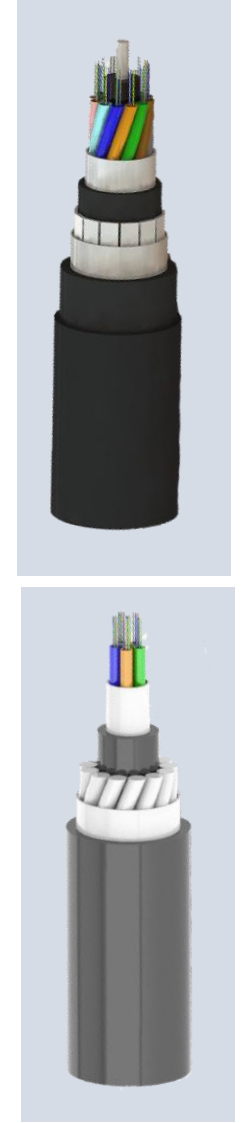
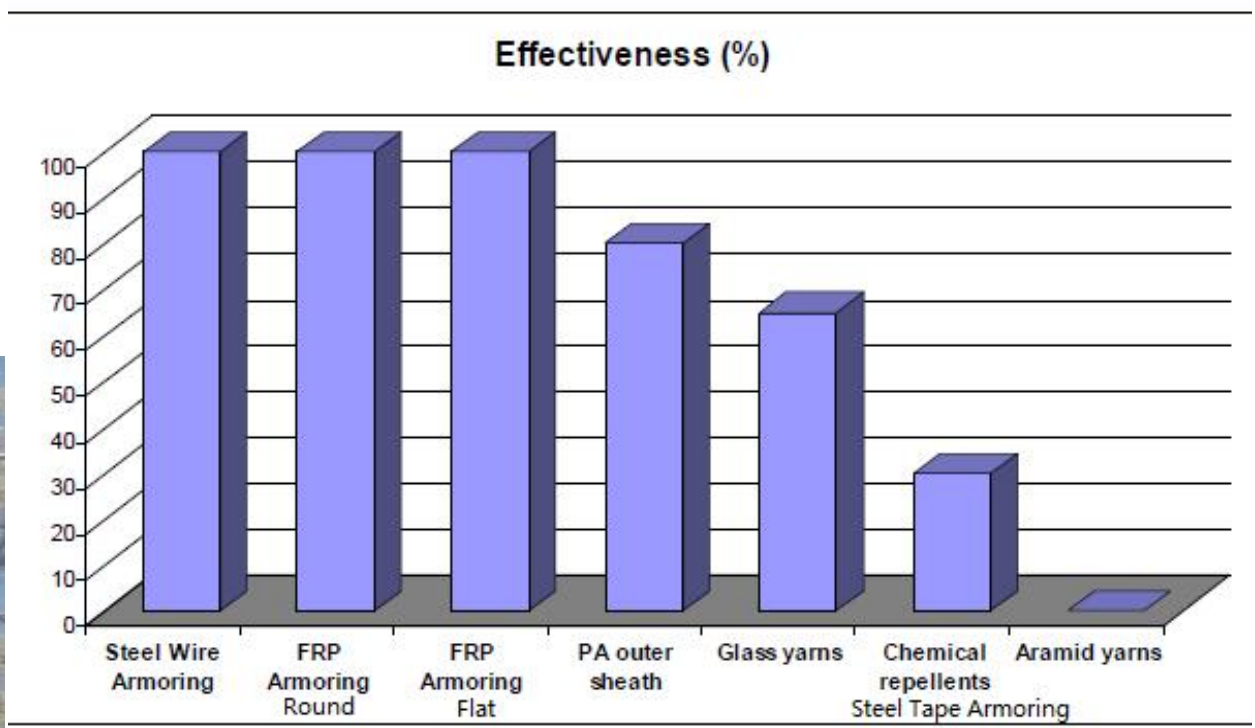
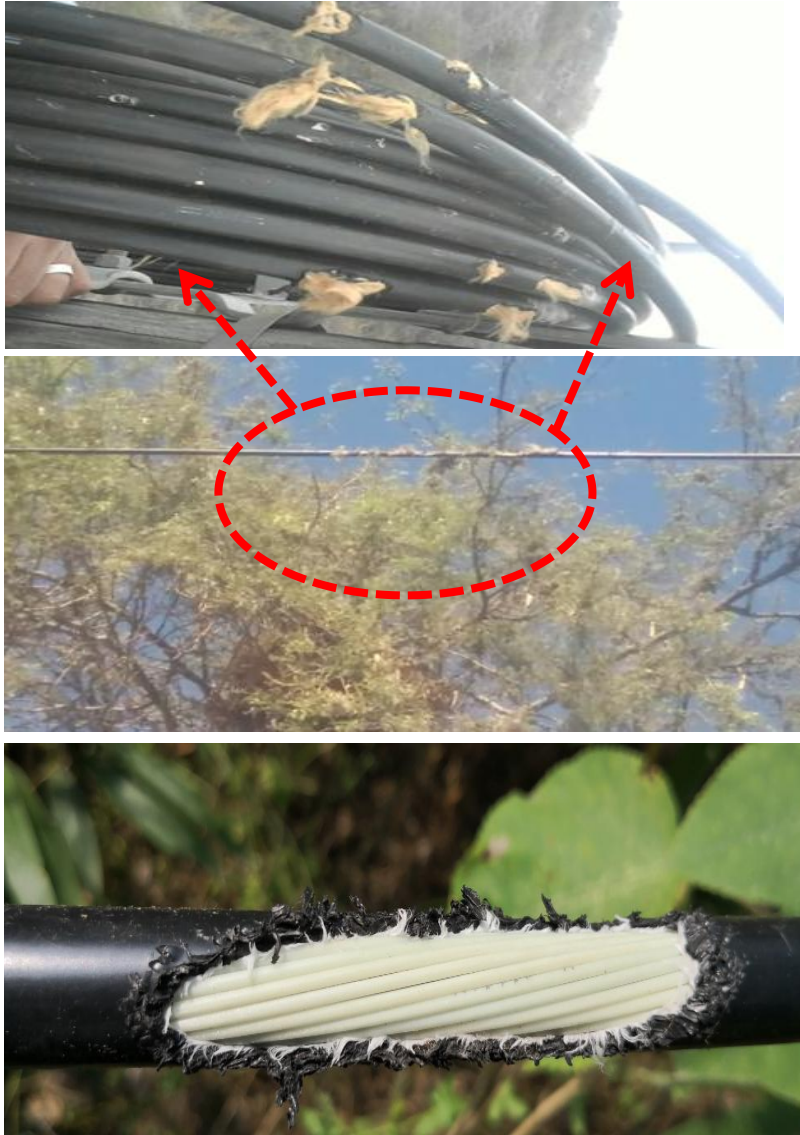
- Provide short term anti-rodent and termite function



## Indoor Anti-rodent

- Provide anti-rodent function
- Excellent flexible performance
- Spiral steel and braid steel wire armor
- Flame retardant for indoor application

# Optical Cable Products Series-Bite guard® Anti-Rodent Type



Compared with other anti-rodent cable structures such as steel wire/tape armoring, PA sheath, glass yarns, chemical additive, **FRP rod armored cable has excellent rodent resistance performance, meanwhile with light weight, no metallic element suitable installed along with power line.**

# Typical Project of FRP Armor Cable

The anti-rodent ADSS cable purchased by Susong Power Supply Co., Ltd. in June 2015 , after used, no serious problems have occurred.

In November 2018, check the installed cables, and found the cable outer sheath was damaged by 60%, but it did not affect the normal use of the product at all.



# Optical Cable Products Series-Flame Retardant and Fire Resistance



In 2017  
London apartment  
fire disaster



In 2018  
Rust European  
theme park caught fire

Reazione al fuoco - Rapporto di classificazione per cavi elettrici Reaction to fire classification report for electric cable	
<b>RAFFORTO DI CLASSIFICAZIONE DELLA REAZIONE AL FUOCO CLASSIFICATI</b>	
1. Richiedente: Applicant	
2. Preparato da: Prepared by	
3. Organismo notificato N°: Notified Body N°	
4. Rapporto di classificazione n°: Classification Report n°	
5. Luogo e data di emissione: Place and date of issue	
5a. Data di aggiornamento: Update on	
6. Designazione del prodotto *: Product Designation	
*secondo le informazioni fornite dal richiedente According to information given by the applicant Vedere anche punto 10. See also point 10.	
7. Oggetto: Purpose	
Il presente rapporto di classificazione è composto da n° 10 pagine, in cui: This Classification report is made of number 10 pages, in which: I risultati di prova riportati nel presente rapporto di classificazione sono stati effettivamente sottoposti a prova. The testing results reported in this report were actually tested. Salvo se la riproduzione è integralmente autorizzata dalla IMQ. Unless otherwise stated, the reproduction of this report is not permitted without the authorization of IMQ. L'autenticità del presente rapporto può essere verificata contattando IMQ S.p.A. The authenticity of this report may be checked by contacting IMQ S.p.A.	
Rapporto di classificazione n°: 0051-CPR-1682 Classification Report n°	
Mod. 3669/1 IMQ S.p.A. con Socio Unico	

Reazione al fuoco - Rapporto di classificazione per cavi elettrici Reaction to fire classification report for electric cable	
<b>RAFFORTO DI CLASSIFICAZIONE DELLA REAZIONE AL FUOCO PER CAVI ELETTRICI IN ACCORDO ALLA NORMA EN 13501-6</b> REACTION TO FIRE CLASSIFICATION REPORT OF ELECTRIC CABLES IN ACCORDANCE WITH EN 13501-6	
1. Richiedente: Applicant	JIANGSU ZHONGTIAN TECHNOLOGY CO., LTD No.1 ZHONGTIAN ROAD, HEKOU TOWN, RUDONG COUNTY, JIANGSU PROVINCE, P.R.CHINA.
2. Preparato da: Prepared by	IMQ SpA Via Quintiliano, 43 - 20138 Milano (Italia)
3. Organismo notificato N°: Notified Body N°	0051
4. Rapporto di classificazione n°: Classification Report n°	0051-CPR-1682
5. Luogo e data di emissione: Place and date of issue	Milano, 29.03.2019
5a. Data di aggiornamento: Update on	-
6. Designazione del prodotto *: Product Designation	GJFH-4 G,657A2 ; GJFH-12G,657A2
*secondo le informazioni fornite dal richiedente According to information given by the applicant Vedere anche punto 10. See also point 10.	
7. Oggetto: Purpose	Classificazione al fuoco dei prodotti e degli elementi da costruzione - Parte 6: Classificazione sulla base dei risultati delle prove di reazione al fuoco su cavi elettrici. Fire classification of construction products and building elements - Part 6: Classification on the basis of results from reaction to fire tests on electric cables
Il presente rapporto di classificazione è composto da n° 10 pagine; in caso di divergenza sull'interpretazione, il testo in italiano prevale sul testo in inglese. This Classification report is made of number 10 pages; in case of divergence of interpretation, the Italian text shall prevail over the English one.	
I risultati di prova riportati nel presente rapporto di classificazione sono stati effettivamente sottoposti a prova. The testing results reported in this report were actually tested. Salvo se la riproduzione è integralmente autorizzata dalla IMQ. Unless otherwise stated, the reproduction of this report is not permitted without the authorization of IMQ. L'autenticità del presente rapporto può essere verificata contattando IMQ S.p.A. The authenticity of this report may be checked by contacting IMQ S.p.A.	
Rapporto di classificazione n°: 0051-CPR-1682 Classification Report n°	
Mod. 3669/1 IMQ S.p.A. con Socio Unico   Via Quintiliano 43   Italia - 20138 Milano   www.imq.it   Pagina 1 di 10	

Customized products  
meeting CPR B2ca/Cca/Dca

- ✓ IEC 61034
- ✓ IEC 60754
- ✓ EN 13501-6
- ✓ EN 50575:2013
- ✓ IEC 60332/60331
- ✓ BS 6387

ZTT flame retardant cable  
fire resistance cable

# Optical Cable Products Series-Fire Resistance Cable

**Characteristic:**  
Simple and mature process

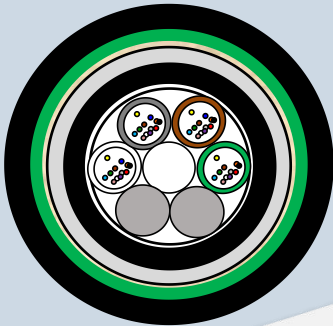
**Performance:**  
IEC 60331-25, but unstable and easy to broken during cooling;



**Double Steel Armor**

**Characteristic:**  
Reduce cable OD and improve fire resistance performance

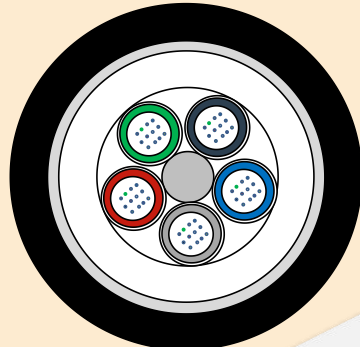
**Performance:**  
BS 6387 CWZ



**Double Sheath Single Steel Armor**

**Characteristic:**

- Non metallic, light weight;
- Wide application, suitable for power system



**Double sheath Dielectric**

**Performance:**  
IEC 60331-25, stable



**Single Sheath Dielectric**

**Characteristic:**

- Non metallic
- Simpler structure, smaller dimension, lighter weight

**Performance:**  
IEC 60331-25, excellent



**Steel Tape Armor**



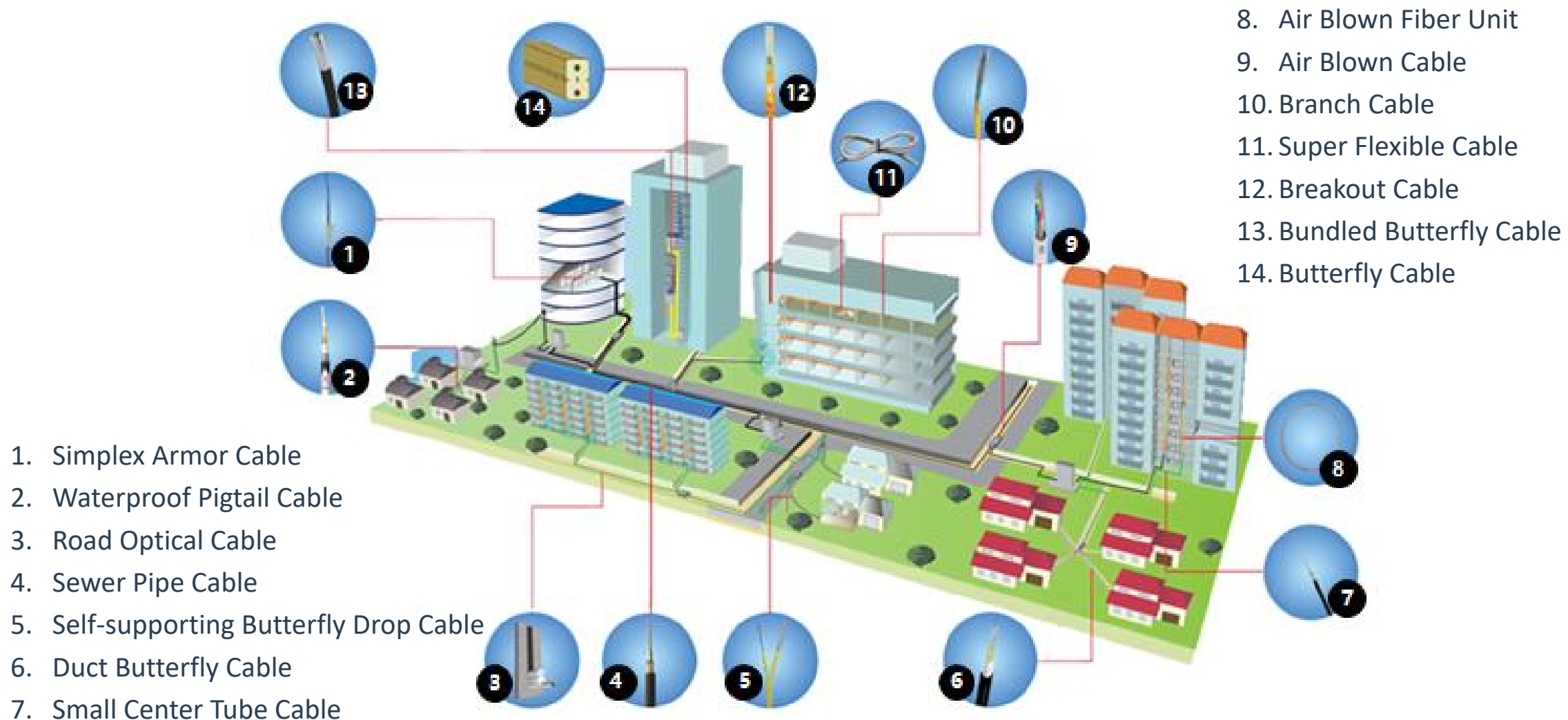
**Steel Wire Armor**

**Performance:**  
IEC 60331-25  
BS 6387-CWZ

Stranded Type

Center Tube Type

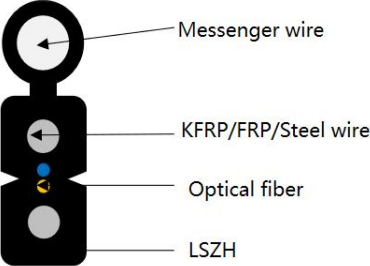
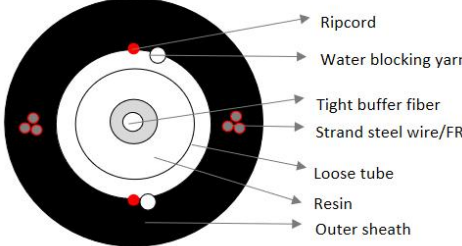
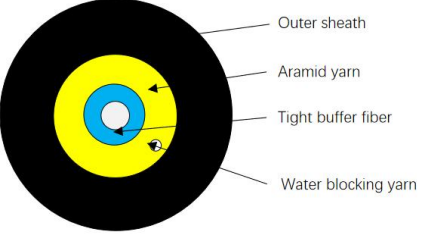
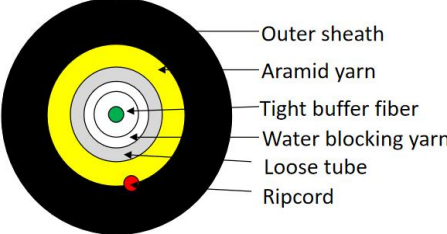
# Optical Cable Products Series-FTTx Solution



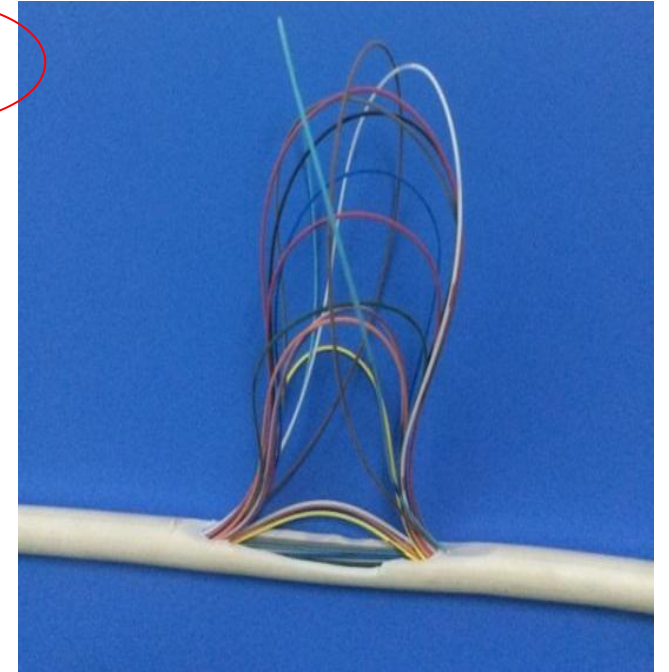
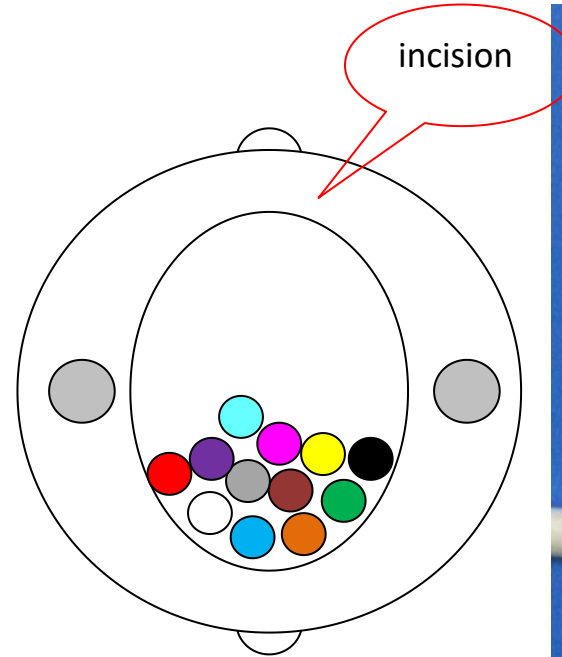


# Optical Cable Products Series-Drop Optical Cable Solution



Cable Type	Butterfly Drop Cable	Round Cable Breaking Load Constant	Round Cable OD/3.0mm	Round Cable OD/5.0mm
<b>Structure</b>				
<b>Advantage</b>	<ol style="list-style-type: none"> <li>1. Small size, light weight, compact structure and easy construction;</li> <li>2. Stable mechanical and environmental performance;</li> <li>3. Good flame-retardant performance;</li> <li>4. Low cost.</li> </ol>	<ol style="list-style-type: none"> <li>1. Constant breaking force for preventing damage to the tower and pole while stressed;</li> <li>2. Excellent bending resistance;</li> <li>3. Excellent water blocking performance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Small size, light weight, compact structure and easy construction;</li> <li>2. Good water resistance;</li> <li>3. All-dielectrical structure</li> </ol>	<ol style="list-style-type: none"> <li>1. Good flame-retardant performance;</li> <li>2. Superior mechanical performance;</li> <li>3. All-dielectrical structure</li> </ol>
<b>Disadvantage</b>	<ol style="list-style-type: none"> <li>1. Insufficient flexibility, easy to twist.</li> <li>2. Steel wire used as a suspension wire reinforcement, has a large breaking force and cannot be broken neatly</li> </ol>	<p>1 core, the use of multiple cores is limited</p>	<ol style="list-style-type: none"> <li>1. Aramid used as a reinforcing element, cannot be broken completely;</li> <li>2. The stress control of the optical fiber inside the optical cable needs to be accurate for controlling the attenuation</li> </ol>	<ol style="list-style-type: none"> <li>1. Aramid used as a reinforcing element, cannot be broken completely;</li> <li>2. The optical fiber is placed in a loose tube, and it is important to control the excess length for the attenuation</li> </ol>
<b>Application</b>	<p><b>Applicable for various scenarios such as duct and overhead</b></p>			

# Optical Cable Products Series-Mid Span Optical Cable



- No damage to the optical fibers during stripping the outer sheath through the use of open window construction;
- FRP not only acts as a reinforcement, but also protects the fiber core when opening the skylight;
- Cable core can be moved freely (the cable core can be easily drawn out of 50 meters), convenient and flexible for installation and connection;
- Soft outer sheath, has anti-flame and self-extinguishing properties, and is used for horizontal and vertical wiring in building houses .

## Part 3



### Certificates & References

Test Report, Certificates, Global Reference

# Optical Fiber and Cable Certificates



## STC UL Duct and air blown cable

## Turkey Telecom

## Turkcell

## Swisscom

## Orange(OPL)

**UL** ZTT INTERNATIONAL LIMITED  
SPN 15696-10-3 Rev A  
UL Project Number: 4788902353

### 2 GENERAL INFORMATION

#### 2.1 References

- PO Number: 7202040269
- IEC 60794-1-21 Optical Fiber Cables - Part 1-21: Generic Specification - Basic Optical Cable Test Procedures - Mechanical Tests Methods
- IEC 60794-1-22 Optical Fiber Cables - Part 1-22: Generic Specification - Basic Optical Cable Test Procedures - Environmental Tests Methods
- IEC 60793-1-40 Optical Fibers - Part 1-40: Measurement Methods and Test Procedures - Attenuation
- EPWL1018 IL RL Measurements I
- EPWL1044 Chamber Controller Programming-A
- EPWL1064 IEC-61300-3-4 and 6 Attenuation and Return Loss-B
- EPWL1126 GR-20 GR-409 Cable Twist D
- EPWL1126 GR-20 GR-409 Cable Twist D
- EPWL1130 GR-20 GR-409 Impact Resistance F
- EPWL1131 GR-20 GR-409 Tensile Strength of Cable D
- EPWL1149 GR-20 GR-409 Low and High Temperature Cable Bend D
- EPWL1151 GR-20 GR-409 Water Penetration E

#### 2.2 Test Samples

See Table 1. ZTT INTERNATIONAL LIMITED submitted one FO cable, (SM), Outdoor, (SD-Duct) Type, Stranded Tube, 144 Fibers for testing.

Test	Sample Size	Part Number
G02-01-03 Bend	One FO cable, (SM), Outdoor, (SD-Duct) Type, Stranded Tube, 144 Fibers	2706180300383
G02-02-03 Impact		
G02-03-03 Crush		
G02-04-03 Tensile and Elongation		
G02-05-03 Torsion		
G02-06-03 Repeated Bend		
G02-07-03 Temperature Cycle		
G02-08-03 Water Penetration		
G02-14-03 Cable Spectral Attenuation		

Test Report: FO cable, (SM), Outdoor, (SD-Duct) Type, Stranded Tube, 144 Fibers

**TÜRK TELEKOMÜNİKASYON A.Ş.**  
TEKNOLOJİ GENEL MÜDÜR  
YARDIMCILIĞI

**YETERLİK BELGESİ**

**ŞİRKETİ**  
FİRMANIN : JIANGSU ZHONGTIAN TECHNOLOGY CO. LTD.(ZTT)  
ADRESİ : Bağlar Mah. Yaban Koçes Cad. No:100A Bağcılar/İstanbul/Türkiye

Yükarıda adı geçen imalatçı firmamız, Şirkemiz; İhtiyaçlarımız için elverişli teknikler, diğer firmaların ürünlerini değerlendirilerek, test edilmiş ve kabul edilmiş olup, bu belge "Erzincan Şirkemiz" ile aynı "ZTT" firmamızın "Erzincan Şirkemiz" tarafından test edilmiştir.

**Erzincan Temin Edilebilecek Malzemeler**  
Türk Telekom Şirkemizden;  
• Her kapasitede Fiber Optik Ürünleri Talebi  
• Her kapasitede Fiber Optik Testin Kabulü

**Emre ÖZKAN**  
Kemiş ÖZKAN  
Sabri Erayım Grup Müdürü

**Engül AÇIK**  
Erzincan Şirkemiz Direktörü

**Emre ÖZKAN**  
Kemiş ÖZKAN  
Sabri Erayım Grup Müdürü

**Emre ÖZKAN**  
Kemiş ÖZKAN  
Sabri Erayım Grup Müdürü

**TURKCELL-ZTT-PENA FABRİKA KALİTE BELGESİ**

ZTT Jiangsu Zhongtian Technology Co. Ltd ve PENA Teknoloji Bilgi ile, ZTT Nantong fabrikasında üretilen, Micro [12, 24, 48, 96, 144, 288] kablolar 15.01-25.01.2018 tarihleri arasında fabrika muayene testleri için üretilen fiber optik kablolar, Türkcell teknik şartnamesinde belirtilmiş olup, EK-1'de bulunan kural ve talepler yerine getirildiği teyid edilmiştir.

İMZA:

TURKCELL PENA

Serhat ALTUN  
Ebru ÖNEN  
Gökhan GÜLMEZ

Gürol ELMEN

**swisscom**

From: Swisscom (Switzerland) LTD  
Date: 21.01.2019  
Subject: Release optical fibres

Copy: cc

**Release of the optical fibre type ITU-T G.652D made by ZTT China**

Scope	Optical fibres
Document-ID	SBEECTOP_1721_00E_1
Version	1.0
Status	Released
Replace version	n/a
Issue date	21.01.2019
Valid from	21.01.2019
Valid until	31.12.2020
Document name	Etop_1721
Server location	Server Swisscom
Archiving	10 years

The optical fibre type ITU-T G.652D manufactured by ZTT China are accepted for use in the Swisscom network. The necessary tests have been performed in the accredited laboratory from Swisscom and Metas-Switzerland. All performed tests are in accordance with the relevant international specifications.

Swisscom (Switzerland) LTD  
IN:RLA:AMP-CP  
Cafain.Chini@swisscom.com

**orange**

Orange Polska S.A.  
Al. Jerozolimskie 160,02-326 Warszawa  
www.orange.com  
Warsaw, 14.10.2019

We certify that starting from 27/02/2019, fiber optic duct cables (Z-XOTKsd 6-288) and fiber optic self-supporting cables (ADSS3kN 4-144) production of ZTT International Limited are included in the Orange Polska Framework Agreement number OPLZ/FN/UR/WLS/2/56776/16. Declaration issued at the manufacturer's request.

Regards,  
Henrik Worska  
Purchasing Director, Network and Technology

# International Ranking, Standard Participation



## Telecoms 150 2020: Global Top 10

Top 10 Most Valuable Brands				Top 10 Strongest Brands			
	1	+1	2020: \$65,084m 2019: \$62,278m +4.5%		1	+1	2020: 83.2 AAA- 2019: 84.28 AAA- -1.3%
	2	+2	2020: \$23,322m 2019: \$21,776m +7.1%		2	+2	2020: 77.4 AA+ 2019: 78.42 AA+ -1.3%
	3	+3	2020: \$9,905m 2019: \$9,835m +0.7%		3	+3	2020: 75.7 AA+ 2019: 75.79 AA+ -0.1%
	4	+4	2020: \$7,158m 2019: \$7,456m -4.0%		4	+4	2020: 75.3 AA+ 2019: 75.63 AA+ -0.4%
	5	+5	2020: \$4,357m 2019: \$3,180m +37.0%		5	+5	2020: 74.6 AA+ 2019: 74.83 AA+ -0.3%
	6	+6	2020: \$2,783m 2019: \$2,536m +9.8%		6	+6	2020: 70.1 AA 2019: 68.26 AA- +2.7%
	7	+7	2020: \$2,166m 2019: \$2,425m -10.6%		7	+8	2020: 67.9 AA- 2019: 64.17 A+ +5.8%
	8	-	2020: \$1,380m 2019: - -		8	-	2020: 60.6 A+ 2019: - -
	9	-	2020: \$1,127m 2019: - -		9	+9	2020: 59.1 A 2019: 61.25 A+ -3.5%
	10	+9	2020: \$948m 2019: \$1,181m -19.7%		10	-	2020: 56.0 A 2019: - -

## International Standard : IEEE 1222-2019-ADSS standard

**IEEE SA**  
STANDARDS ASSOCIATION

**IEEE Standard for Testing and Performance for All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable for Use on Electric Utility Power Lines**

IEEE Power and Energy Society

Developed by the Power System Communications and Cybersecurity Committee

IEEE Std 1222™-2019  
(Revision to IEEE Std 1222-2011)

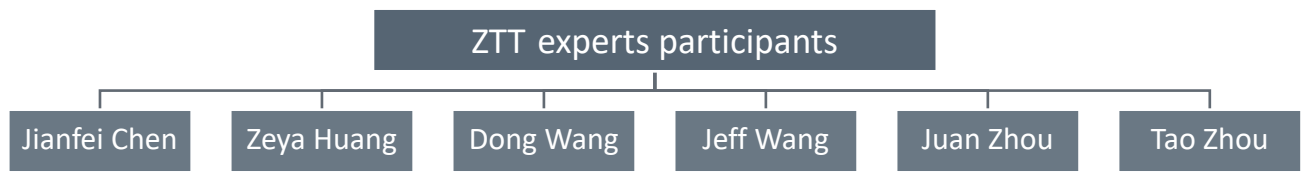
**IEEE SA**  
STANDARDS ASSOCIATION

**Participants**

At the time this IEEE standard was completed, the Fiber Optics Standards Working Group had the following membership:

**William Byrd, Chair**  
**Corrine Dimnik, Vice Chair**

Gregory Bennett	Zeya Huang	Mike Riddle
Chitragad Bhatnagar	John Jones	James Ryan
Mark Boxer	Delavar Khomarlou	Bret Sanders
Brett Boles	Mike Kinard	Tewfik Schegade
Jon Brasher	Bob Kluge	Tarlochan Singh
Jianfei Chen	Khoa Lu	Dan Stanton
Airbar Claudio	Josep Martin-Regalado	Monty Tuominen
Trisha Crawford	Sarah Mazzotta	Nathan Wallace
Patrick Dobbins	D. J. Moreau	Dong Wang
Jim Hartpence	Mark Naylor	Jeff Wang
Austin Farmer	John Olenik	Mike Warnjcs
Bruce Freimark	Kunhal Parikh	Jaclyn Whitehead
Denise Frey	John Potter	Juan Zhou
Rabih Ghossein		Tao Zhou



# ZTT-Serving More than 70 Global Telecom Operators



# Sales Reference for Oversea Market

Total overseas sales exceed **2,200,000km.**

## Europe

	42,472km
	1,564km
	14,857km
	12,969km
	8,038km
	3,601km
	3,922km
	5,751km

## Latin America

	140,126km
	43,890km
	6,044km
	16,239km
	10,806km
	4,780km
	5,983km

## Asia

	77,883km
	39,764km
	204,264km
	47,923km
	44,354km
	8,694km
	176,132km
	14,688km
	14,491km
	3,216km

## Africa

	29,654km
	6,530km
	3,141km



Thank You!

[www.zttcable.com](http://www.zttcable.com)