FIGURE-8 OPTICAL FIBER

GYTC8S Aerial Installation Cable

ver.2025.01

DATA SHEET & USER MANUAL

OUFU OPTOELECTRONICS

High-quality Fiber Optic And Ethernet Cable Solutions

Doc Code G5

TECHNICAL DATA SHEET

Figure-8 Arial Optical Fiber Cable

GYTC8S

Version	Designer	Verified	Approved	Date
1.03	Steven Li	Amy Ai	Zhang Lao	2024.4.28

Reference

The cable OUFE offered, are designed ,manufactured and tested according to internationalstandards as follows

IEC 60793-1	Optical fiber Part 1: Generic specifications
IEC 60793-2	Optical fiber Part 2: Product specifications
IEC 60794-4	Optical fiber cables-Part 4: Aerial optical cables along electrical power lines
ITU-T G.650	Definition and test methods for the relevant parameters of single-mode fibers
ITU-T G.652	Characteristics of a single-mode optical fiber and cable
EIA/TIA 598-C	Color code of fiber optic cables

Figure-8 Arial Optical Fiber Cable

Fig8 designed cable with wire messenger for arial pole and wall installation.

Fiber count	KN	Steel wire
4 - 144 FO	7.5 - 9.5 KN	1

Cable name

Figure8 GYTC8S fiber cable
GYTC8S8

Scope

This document defines the technical guidelines and operational benchmarks governing optical fiber cable design, manufacturing, and implementation within industrial applications. It specifies performance criteria for high-performance Optowire cables, including their optical signal integrity, structural resilience under mechanical stress, and dimensional precision requirements aligned with industry standards.

Cable description

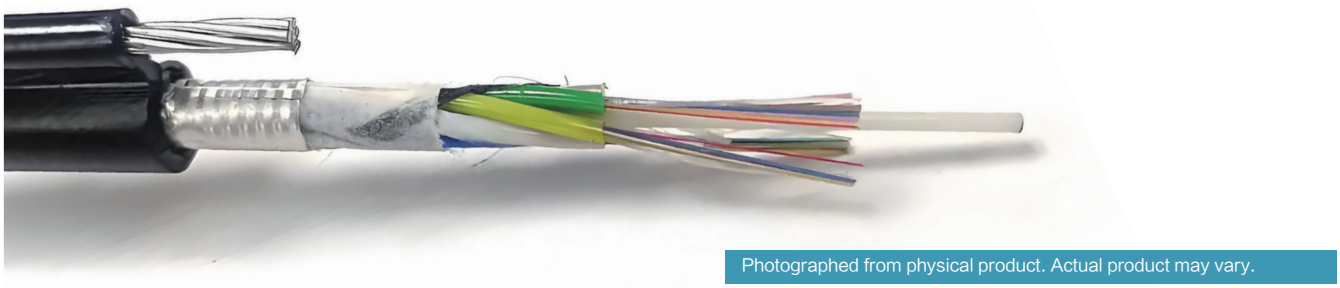
OUFU cables feature robust tensile resilience and adaptable flexibility within streamlined dimensions, ensuring reliable data transmission alongside durable operational integrity under varying environmental conditions.

Quality

Quality control is achieved through intense in-house quality check and stringent audit acceptance by ISO 9001.

Reliability

Initial and periodic product qualification tests for performance and durability are performed rigorously to ensure product reliability.

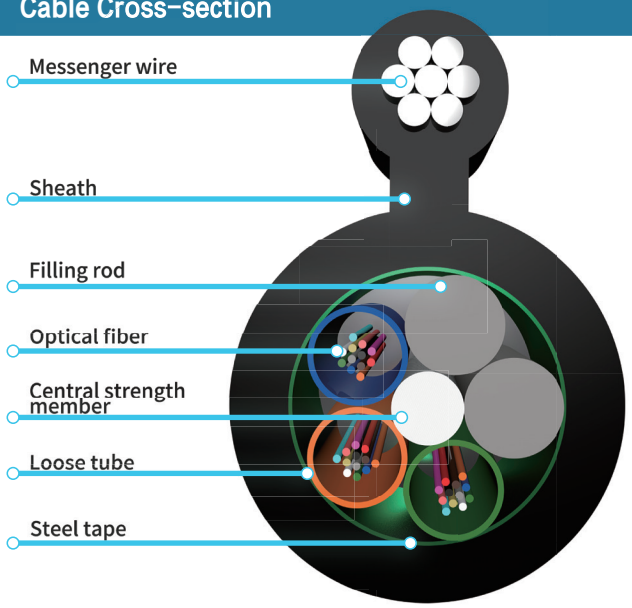


Photographed from physical product. Actual product may vary.

Dimension and Properties:

Physical	Fiber count	4	8	12	16	24	32	48	60	72	96	144
	Number of tube/ filler	1/5	2/4	3/3	4/2	6/0	4/2	4/2	5/1	6/0	8/0	12/0
	Fiber No. per tube	4	4	4	4	4	8	12	12	12	12	12
	Loose tube diameter	2.0 ± 0.1mm										
	CSM diameter	2.2 ± 0.1mm					3.5 ± 0.1mm (FRP: 2.6 ± 0.1mm)				6.1 ± 0.1mm FRP 2.6 ± 0.1mm)	
	Outer sheath thickness	Nominal 1.5mm										
	Messenger wire	1.0 ± 0.1mm*7										
	Messenger outer sheath thickness	Nom.1.5mm										
	Cable OD (W*H)	9.2*17.6 mm ± 5%					10.5mm*18.9mm ± 5%				13.1mm*21.5mm ± 5%	
	Cable weight (kg/km ± 15%)	135	136	137	138	141	140	141	143	144	170	220
	Operation temperature range	−40 deg C to + 70 deg C										
	Installation temperature range	−20 deg C to + 70 deg C										
	Transport and storage temperaturerange	−40 deg C to + 70 deg C										
Mechanical	Max. tensile load	7500N										
	Crush resistance	1000 N/10cm										
	Minimal installation bending radius	20 x OD										
	Minimal operation bending radius	10 x OD										

Cable Cross-section

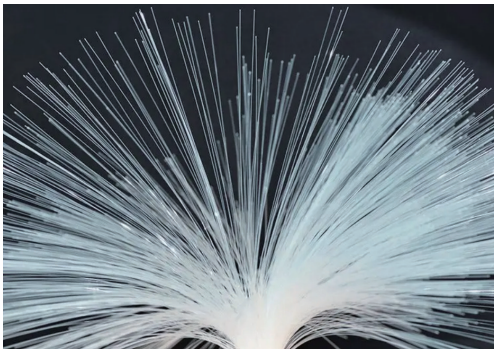


Color codes for loose tube

Fiber count	Element no.											
	1	2	3	4	5	6	7	8	9	10	11	12
6	LT	FR	FR	FR	FR	FR						
12	LT	LT	FR	FR	FR	FR						
24	LT	LT	LT	LT	FR	FR						
36	LT	LT	LT	LT	LT	LT						
48	LT	LT	LT	LT	FR	FR						
72	LT	LT	LT	LT	LT	LT						
96	LT	LT	LT	LT	LT	LT	LT	LT				
144	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT

Fiber color code

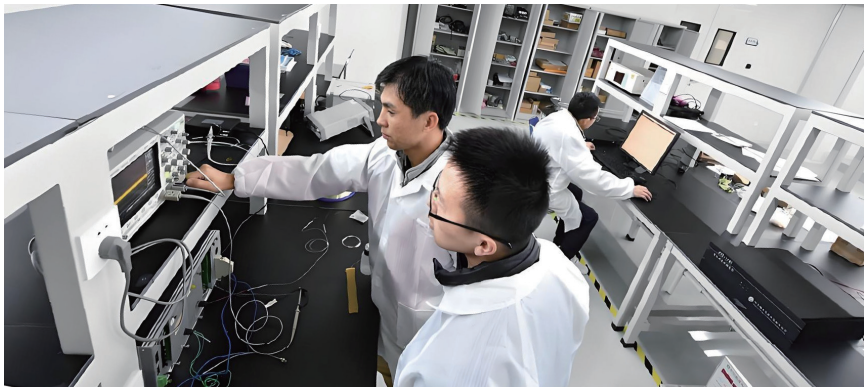
No.	1	2	3	4	5	6	7	8	9	10	11	12
Color	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua



Optical Fiber G.652D

The optical fiber is made of high pure silica and germanium doped silica.UV curable acrylate material is applied over fiber cladding as optical fiber primary protective coating. The detail data of optical fiber performance are shown in the following table.

Category	Description	Specifications
		After cabling
Optical Specifications	Attenuation @1310 nm	≤0.36 dB/km
	Attenuation @1550 nm	≤0.22 dB/km
	Dispersion @1310nm	≤3.5 ps/nm·km
	Dispersion @1550nm	≤18.0 ps/nm·km
	Zero Dispersion Wavelength	1300~1324 nm
	Zero Dispersion Slope	≤0.092 ps/nm2·km
	Macro bending Loss (100 turns; Φ 60 mm) @1550 nm (100 turns; Φ 60 mm) @1625 nm	≤ 0.05 dB ≤ 0.1 dB
	Cable cutoff wavelength λ cc(nm)	≤1260nm
	Mode Field Diameter @1310 nm	9.2±0.4μm
Dimensional Specifications	Cladding Diameter	125±1μm
	Coating diameter	245±10μm
	Core/cladding concentricity error	≤0.6 μm
	Cladding Non-Circularity	≤1.0 %
Mechanical Specifications	Proof stress	≥0.69Gpa



Testing

Main mechanical & environmental performance test of optical cable

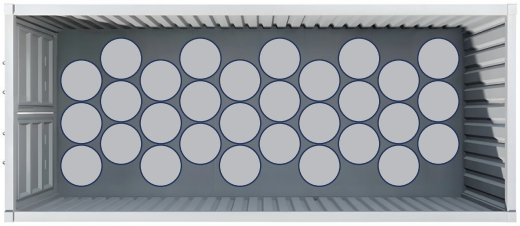
Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-21-E1	Load: MAT Length of cable: ≥ 50m. Load time: 5min	Loss change≤0.1dB@1550nm after test; Fiber stain≤0.33%; No fiber break and no sheath damage.
Crush Test IEC 60794-1-21-E3	Load: short term crush Load time: 1min	Loss change≤0.1dB@1550nm after test. No fiber break and no sheath damage.
Impact Test IEC 60794-1-21-E4	Radius of striking surface: 300 mm Impact energy: 10J Number of impacts: each 1 time at 3 point, total 3 times	Loss change≤0.1dB@1550nm after test. No fiber break and no sheath damage.
Repeated Bending IEC 60794-1-21-E11	Bending radius: 20D（D：cable diameter） Cycles: 25	Loss change≤0.1dB@1550nm after test. No fiber break and no sheath damage.
Torsion IEC 60794-1-21-E7	Length: 2m Twist angle: ±180° No. of cycle: 10	Loss change≤0.1dB@1550nm after test. No fiber break and no sheath damage.
Cable bend IEC 60794-1-21-E10	Diameter of mandrel:20 x OD Number of turns:4 Number of cycles:3	Loss change≤0.1dB@1550nm after test. No fiber break and no sheath damage.
Water Penetration IEC 60794-1-21-F5C	Height of water: 1m Sample length: 3m Time: 24h	Loss change≤0.1dB@1550nm after test. No fiber break and no sheath damage.
Temperature Cycling IEC 60794-1-22-F1	Temperature: -40℃~+70℃ Time of each step: 12h Number of cycle: 2	Loss change≤0.1dB/km @1550nm. No fiber break and no sheath damage.

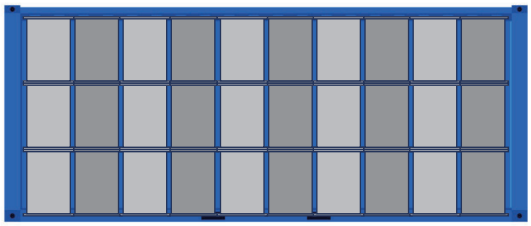
Labeling Options

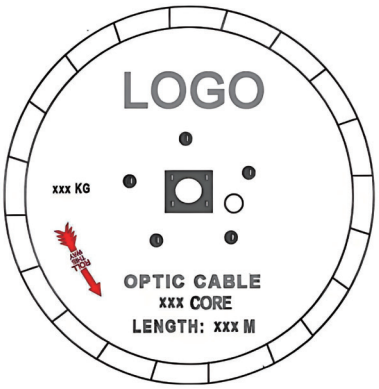
Packing Options

Plywood Drum	Fumigated Wooden Drum	Plywood Drum

Sea Freight Example: Default shipping method: Sea freight.







Packaging material: Plywood drum. Drum dimensions: D:600mm, H:750mm.
Container size: 20-foot container.Theoretical maximum quantity: 90 pieces.
For specific cable lengths, weight specs etc, please confirm with our team.
Special requirements and custom labeling are available upon request.

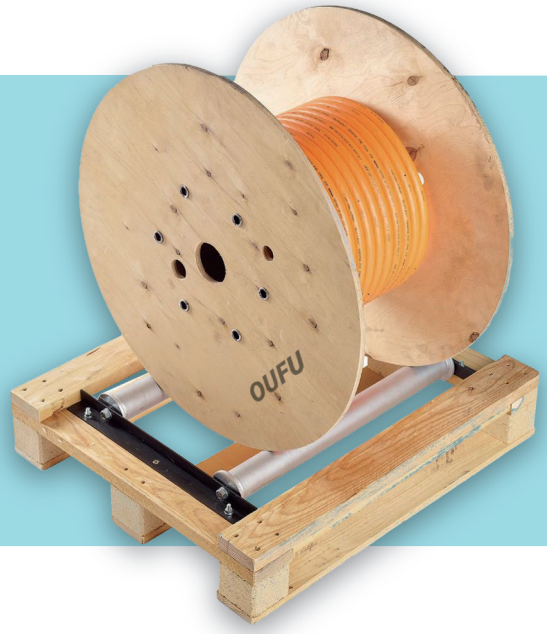
Free Test Sample Kit

- cable
- factory test report
- batch details
- cuting tool
- company souvenir
- testing guaid

Trail Order

Trial orders are welcome.
Minimum order quantity : 1,000–2,000 meters.
Production & Delivery: If items are not in stock, production will follow factory batches, and delivery times may vary.
Customization Note: Specialized custom products may incur additional charges.

please consult our team for details.



Q1：Are you a manufacturer?

A1：Yes. We are a manufacturer with 15+ years of history. We offer the best price direct from the factory.

Q2：Can you put my brand name (logo) on these products?

A2：Yes! We offer professional OEM services. Our factory can make the logo fee free for bulk orders.

Q3：Do you accept small orders?

A3：Yes, small orders are always available. We support new projects of our customers as we know even great business origins from small orders.

Q4：Can you provide us with more products to help us to save more shipping costs?

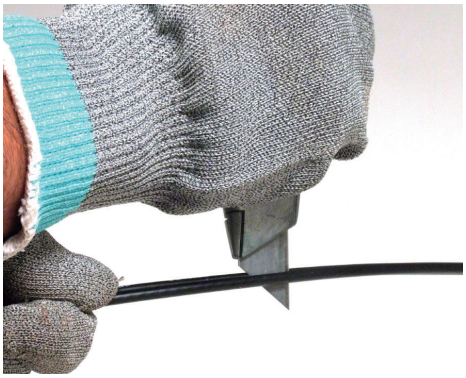
A4: Of course. OPGW cable, ADSS cable, ACSR Cable, FTTH Drop cable, outdoor fiber cable, indoor fiber cable, fiber cable Accessories, patch cord, pigtail, and air blow fiber cable are our main products.

Q5：What is your delivery time?

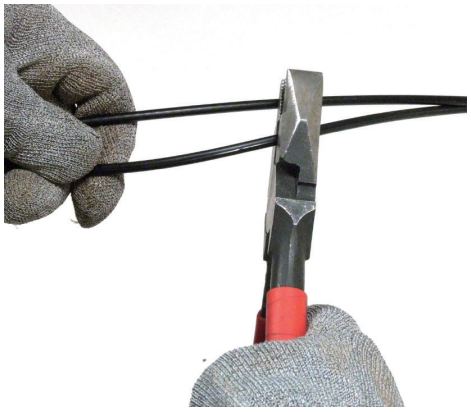
A5：Usually within 10 working days.

Application Tips

Steel Messenger Dead-end Processing

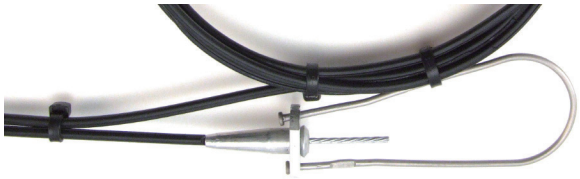


Splitting the cable



Cuting the Steel Messenger

Stripping the jacket



Yoke Fitting

or

Thimble Fitting

Bare Messenger

Over Jacket

Cable Coupling Coil

Cable Tangential Clamp

Ather High-Demand Selections

48 Core ADSS Fiber Cable - Outdoor Self-Supporting, All Dielectric

ADSS cable is loose tube stranded structure. The optical fiber is 250μm, the loose tube is made of high modulus plastic, which is filled with water-proof compound. In the center of the cable core is a FRP strength member,The loose tube (and the filling rope) is twisted around the central reinforcement core to form a compact and round cable core, and the gap in the cable core is filled with a water blocking filler. The outer of the cable is a polyethylene (PE) inner sheath,then twisted high tensile strength aramid, the outermost is the electric tracking (AT) outer sheath

2-24 core super mini air-blown micro fiber cable

Air-blown micro cables use air-blown laying methods to connect optical branch points and user access points. The optical cable has good mechanical and temperature properties, high tensile strength guaranteed by fiberglass, good flexibility, easy construction, and low cost.

ASU Fiber Optic Cable G.652D

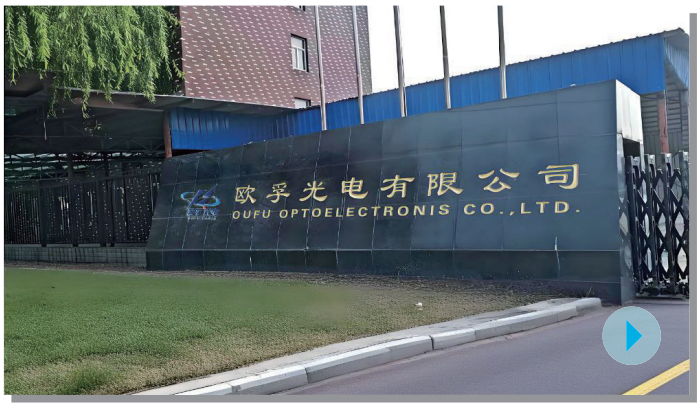
Mini Adss ASU Cable has a loose tube structure and water-resis-tant gel compound to provide crucial protection for the fiber. Over the tube, water-blocking material is applied to keep the cable watering. Two Parallel fiber-reinforced plastic(FRP) elements are placed on the two sides. The cable is covered with a single PE outer sheath. It is especially suitable for installation in aerial for long-distance communication.

Ethernet Cable Cat5e, Cat6, Cat6a

premium Cat5e, Cat6, and Cat6a Ethernet Cables in 305m boxes, designed for high-speed, reliable network performance. Our cables are available in UTP, FTP, and SFTP configurations, featuring 100% pure copper conductors for superior signal integrity and minimal interference. Whether you need 100m, 200m, or 305m lengths, each cable is rigorously tested to ensure compliance with international standards, making it ideal for data centers, offices, and smart home installations.

More About Us

SCAN ME



Introduction
VIDEO

SCAN ME

Production
VIDEO

SCAN ME

Testing
VIDEO

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