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# Uni Tube Fiber Optic Cable

### SM Armored Uni Tube Outdoor Fiber Optic Cable GYXTW-6 Core

GYXTW 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 polyethylene (PE) sheath.



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

#### Complied Standards

- complies with Standard YD/T 769.
- RoHS Compliant



#### **Key Feature**

- Blocks water from entering the cable and damaging the optical fibers
- Provides crush resistance
- Resists degradation due to sunlight exposure
- Allows smaller cable diameter and lighter weight versus stranded tube design
- Supports 10 Gb/s applications while maintaining compatibility with existing 50µm multimode systems

Application

- Duct/Directly
- Buried/Aerial

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### Performance of Optical Fiber and Cable

No	Description	Performance Index		
1	Cladding Diameter	125±1um		
2	Cladding Non-circularity	≤1.0%		
3	Cable Cut-off Wavelength	≤1260nm		
4	Zero-dispersion Avelength	1300-1324nm		
5	Zero-dispersion Slope	≤0.092ps/(Nm²*km)		
6	Impact Resistance	Passes IEC794-1		
7	Solar Radiation Resistance	Passes IEC794-1		
8	Compound Flow	Passes IEC794-1		
9	Cyclic Flexing	Passes IEC794-1		
10	Specification	IEC 60794-1, EIA/TIA-455		
11	Cladding Diameter	125 ± 0.7 μm		
12	Clad Non-Circularity	≤ 0.7 %		
13	Core-Clad Concentricity Error	≤ 0.5 μm		
14	Primary Coating Material	Acrylate		
15	Primary Coating Diameter	245 ± 5 μm		
16	Secondary Color Coating Diameter	250 ± 10 μm		
17	Point Loss @ 1310nm & 1550nm	0.05 dB		
18	Zero Dispersion Wavelength	1302 – 1322 nm		
19	Mode Field Diameter	1310nm	9.2±0.4um	
1.7		@1550	10.4 ± 0.5 μm	
20	Attenuation	@1310nm	≤0.36db/Km	
		@1550nm	≤0.22db/Km	
21	Tensile Properties	Long-term	300n	
		Short-term	800n	
22	Compressive Properties	Long-term	300n	
		Short-term	1000n	
23	Bending Radius	Static	12.5d	
		Dynamic	25d	
24	Operating Temperature Range		- 40°C To + 70°C	
25	Storage Temperature Range		- 40°C To + 70°C	

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#### Structure Size

Features					
Fiber Number	2, 4, 6 & 12 cores				
Fiber Type	125/250 μm				
Diameter of loose tube	1.8±0.1mm				
Metallic Reinforcement	2*0.7mm GFRP				
Buffer Tube Material	PBT – Polybutylene Terephthalate				
Buffer Tube Filling Material	Synthetic Thixotropic Gel				
Armor Type	Corrugated				
Armor Material	Steel Tape				
Armor Thickness	0.15 mm				
Sheath material	Black PE material				
Sheath Thickness	2.0±0.2mm				
Reference Diameter	7.4±0.2mm				
Reference Weight	56±4kg/km				
Outer Jacket Material	PE – Polyethylene Outer Jacket				
Outer Jacket Color	Black				
Overall Nominal Diameter	7.3 mm				

### Ordering Information

Part No	Name of items	Color	G.W (Kg)	N.W (Kg)
6235-4021BK	SM Armored Uni Tube Outdoor Fiber Optic Cable GYXTW-2 Core	Black	64	52
6235-4041BK	SM Armored Uni Tube Outdoor Fiber Optic Cable GYXTW-4 Core	Black	65	53
6235-4061BK	SM Armored Uni Tube Outdoor Fiber Optic Cable GYXTW-6 Core	Black	66	54
6235-4121BK	SM Armored Uni Tube Outdoor Fiber Optic Cable GYXTW-12 Core	Black	69	57