

Indoor Breakout Optical Fiber Cable

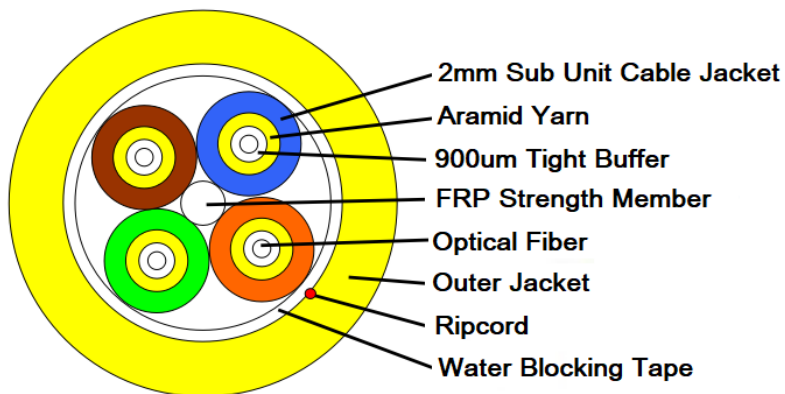


4 Fibers



24 Fibers

Cable Structure



The individual loose tubes shall accordance with standard TIA/EIA-598-A and the color code as below.

NO.	1	2	3	4	5	6	7	8	9	10	11	12
4fiber	Blue	Orange	Green	Brown								
24fiber	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Color												

Note: If have the same color, a black strip is printed on the 2mm sub unit cable jacket to distinguish them.

Optical Fiber Characteristics

Item	Description
Fiber Type	SM G657A2
Mode Field Diameter (um)	9.2±0.4
Cladding Diameter (um)	125±0.7

Coating Diameter (um)		250±15
Core Concentricity Error (um)		≤0.5
Coating Cladding Connectivity Error (um)		≤10
Cladding Non-circularity (%)		≤1.0
Zero Dispersion Wavelength (nm)		1300~1324
Zero Dispersion Slope		≤0.092ps/(nm ² ·km)
Chromatic Dispersion @1285~1325nm		≤ 3.5 ps/(nm.km)
Chromatic Dispersion @1550nm		≤18.0 ps/(nm.km)
Cable Cut-off Wavelength (nm)		≤1260
Proof Test Lever		100KPSI
Fiber Attenuation (dB/km)	@1310nm	≤0.35
	@1550nm	≤0.22
Macro bending Loss (dB)	30mm radius, 100turn	≤0.05 @1625nm

Cable Specifications

Item		Description	
Fiber Core		4F	24F
Optical Fiber	Diameter (um)	250	
	Color	Natural	
Tight Buffer (um)		900	
Sub Unit	Diameter (mm)	2.0	
	Strength Member	Aramid Yarn	
	Jacket Material	Flame retardant LSZH	
Central Strength Member		FRP	
Water Blocking Material		Water Blocking Tape	
Outer Jacket Material		Flame retardant LSZH (comply with IEC60332-3)	
Cable Outer Dimension (mm)		7.6±0.3	14.6±0.3
Cable Approx. Weight (kg/km)		≤55	≤200
Temperature	Operation	-40~+70 °C	
	Installation	-30~+70 °C	
	Storage	-40~+70 °C	
Mechanical	Tensile (short term)	450N	
	Crush (short term)	1000N/10cm	
Bending Radius	Dynamic	20D	
	Static	10D	

Mechanical and Physical Characteristics

Item	Test Method	Test Criteria
Tensile Loading Test	IEC60794-1-2 E1 Load: 450N (short term) Sample length: No less than 50m Duration time: 10 min	Fiber strain $\leq 0.6\%$ No fiber break nor sheath damage
Tensile Loading Test	IEC60794-1-2 E1 Load: 150N Sample length: No less than 50m Duration time: 1 min	Attenuation change: ≤ 0.1 dB @1550 nm No fiber strain
Crush Loading Test	IEC60794-1-2 E3 Load: 50N Duration time: 1 min Test number: 1	Attenuation change: ≤ 0.1 dB @1550 nm No fiber break nor sheath damage
Impact Resistance Test	IEC60794-1-2 E4 Impact energy:10J Points of impact: 10 Number of Impacts:1 time	Attenuation change: ≤ 0.1 dB @1550 nm No fiber break nor sheath damage
Bending Test	IEC60794-1-2 E6 Bending radius:20D, Number of cycles: 20	No fiber break nor sheath damage
Torsion	IEC60794-1-2 E7 Length: 1m, Twist angle: $\pm 90^\circ$, No of cycle: 10	Attenuation change: ≤ 0.1 dB @1550 nm No fiber break nor sheath damage
Water Penetration	IEC60794-1-2 F5B Height of water: 1m Sample length: 3m Time: 24h	No water leakage from the cable core of the opposite end
Temperature Cycling	IEC60794-1-2 F1 Temperature:-40°C~+70°C, Time of each step:24h, Number of cycle: 1	Attenuation change: ≤ 0.1 dB @1550 nm No fiber break nor sheath damage

Cable Marking

Marking color – black; Printing mode - Jet printing; Interval - 1.0 meter

Print content according to customer requirements

Packaging

According to customer requirements

Ordering Information

Indoor breakout optical fiber cable, FRP strength member; 900um tight buffer fiber and 2mm sub unit; 4(24) fibers, SM, G657A2; yellow flame retardant LSZH jacket (comply with IEC60332-3); the color code for sub unit loose tubes shall be in accordance with standard TIA/EIA-598-A.