



Optical Fiber Cable Technical Specification

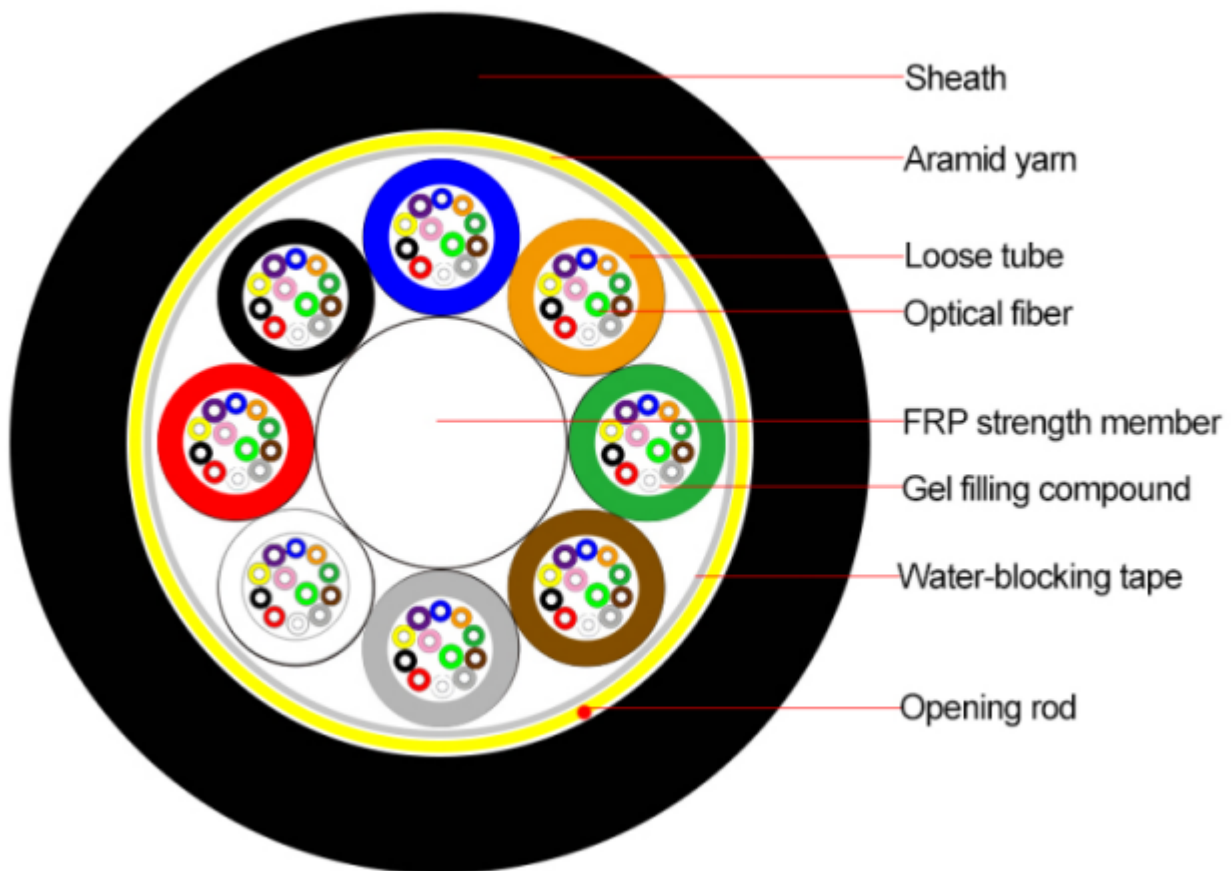
Cable Technical Specification

ADSS-2-288

1 Optical Fiber Cable Type

Item	Model	Fiber Type	Fiber Count
Parameter	ADSS	G.652D	2-288
Note	All Dielectric Self-Supporting Cable	Compliant with ITU-T ITU-T G.652	2-288 Single-mode

2 Cross Section of Cable



3 Optical Fiber Type and Properties

Item	Wavelength / Condition	Unit	Specification G.652D
Mode field diameter	1310nm	μm	9.2 ± 0.4
	1550nm	μm	10.4 ± 0.5
Cladding diameter	—	μm	125 ± 1
Cladding non-circularity	—	%	≤ 1.0
Core-to-cladding concentricity	—	μm	≤ 0.6
Coating diameter	—	μm	245 ± 10
Coating-to-cladding concentricity	—	μm	≤ 12

Cut-off wavelength	—	nm	≤1260
Attenuation	1310nm	dB/km	≤0.350
	1383nm	dB/km	≤0.340
	1550nm	dB/km	≤0.20
	1625nm	dB/km	≤0.22
Chromatic dispersion	1310nm	ps/(nm·km)	0~4.0
	1550nm	ps/(nm·km)	16~20
Dispersion slope	—	ps/(nm ² ·km)	≤0.092
Zero dispersion λ	—	nm	1300~1324
PMD	—	ps/√km	≤0.15
Effective area Ae	1310nm	μm ²	80~90
Proof stress	—	kpsi	≥100kpsi / 0.69GPa

Other parameters meet standard ITU-T G.652D

4 Dimensions of Cable Constructions

Fiber count	Cable diameter	Cable weight (KG/KM)	Tension(N)		Crush(N/100MM)		Bending radius(MM)	
			Long term	Short term	Long term	Short term	Static	Dynamic
2-30	9.5	68	600	1500	300	1000	10D	20D
32-36	9.5	68	600	1500	300	1000	10D	20D
38-60	9.5	69	600	1500	300	1000	10D	20D
62-72	9.5	69	600	1500	300	1000	10D	20D
74-96	10.6	87	600	1500	300	1000	10D	20D
98-120	13	134	600	1500	300	1000	10D	20D
122-144	13	144	600	1500	300	1000	10D	20D
192-288	15.6	187	600	1500	300	1000	10D	20D

5 Cable Performance

Materials

Item	Material/Parameter	Specification
Fiber Material	Silica	Complies with G.652
Loose tube	Material	PBT
Loose tube	Color	All color display
Filler	PP	
CSM	FRP+Aramid	
Outer jacket	Material	HDPE
Outer jacket	Color	Black

Mechanical Performance (IEC 60794)

No.	Item	IEC Standard	Test Method	Acceptance Criteria
1	Tensile Strength	IEC 60794-1-21-E1	➤ Load: 1500 N ➤ Cable length: ≥50 m ➤ Loading time: 1 min	➤ Loss change after test < 0.2 dB @1550 nm ➤ No fiber breakage and no sheath damage
2	Crush Test	IEC 60794-1-21-E3	➤ Load: short-term compression ➤ Loading time: 1 min	➤ Loss change after test ≤ 0.1 dB @1550 nm ➤ No fiber breakage and no sheath damage
3	Impact Test	IEC 60794-1-21-E4	➤ Impact surface radius: 300 mm ➤ Impact energy: 10 J ➤ Impact times: 1 per point, 3 times in total	➤ Loss change after test ≤ 0.1 dB @1550 nm ➤ No fiber breakage and no sheath damage
4	Repeated Bending	IEC 60794-1-21-E11	➤ Bending radius: 20D (D = cable diameter) ➤ Number of cycles: 25	➤ Loss change after test ≤ 0.1 dB @1550 nm ➤ No fiber breakage and no sheath damage
5	Twist Test	IEC 60794-1-21-E7	➤ Sample length: 2 m ➤ Twist angle: ±180° ➤ Number of cycles: 10	➤ Loss change after test ≤ 0.1 dB @1550 nm ➤ No fiber breakage and no sheath damage
6	Cable Bend Test	IEC 60794-1-21-E10	➤ Mandrel diameter: 20 × OD ➤ Number of turns: 4 ➤ Number of cycles: 3	➤ Loss change after test ≤ 0.1 dB @1550 nm ➤ No fiber breakage and no sheath damage
7	Water Penetration	IEC 60794-1-21-F5C	➤ Water level: 1 m ➤ Sample length: 3 m ➤ Test time: 24 h	➤ Loss change after test ≤ 0.1 dB @1550 nm ➤ No fiber breakage and no sheath damage
8	Temperature Cycling	IEC 60794-1-22-F1	➤ Temperature range: -40°C to +70°C ➤ Duration per step: 12 h ➤ Number of cycles: 2	➤ Loss change ≤ 0.1 dB/km @1550 nm ➤ No fiber breakage and no sheath damage

6 Fiber Colour Coding

Fiber No.	Color
1	Blue
2	Orange
3	Green
4	Brown
5	Grey
6	White
7	Red

8	Black
9	Yellow
10	Violet
11	Pink
12	Aqua

Note: When the fiber count per loose tube exceeds 12, fibers beyond 12 follow the color sequence above with color band/dot marking to distinguish (e.g., #13=Blue+band1, #14=Orange+band1...).

7 Packaging Information

Item	Description
Drum Type	Fumigation-free wood veneer, plywood drum, or steel drum — selected according to cable dimensions and weight.
Sealing	Sealed with rigid wooden boards or cardboard.
Standard Lengths	1000 m, 2000 m, 3000 m, 5000 m per drum (tolerance +2%).
End Reserve	At least 3 meters of cable reserved at each end for testing.

Note: This datasheet can only be a reference, but not a supplementto the contract. Please contact our sales people for more detailed information



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