FEIBOER

Optical Fiber Cable Technical Specification

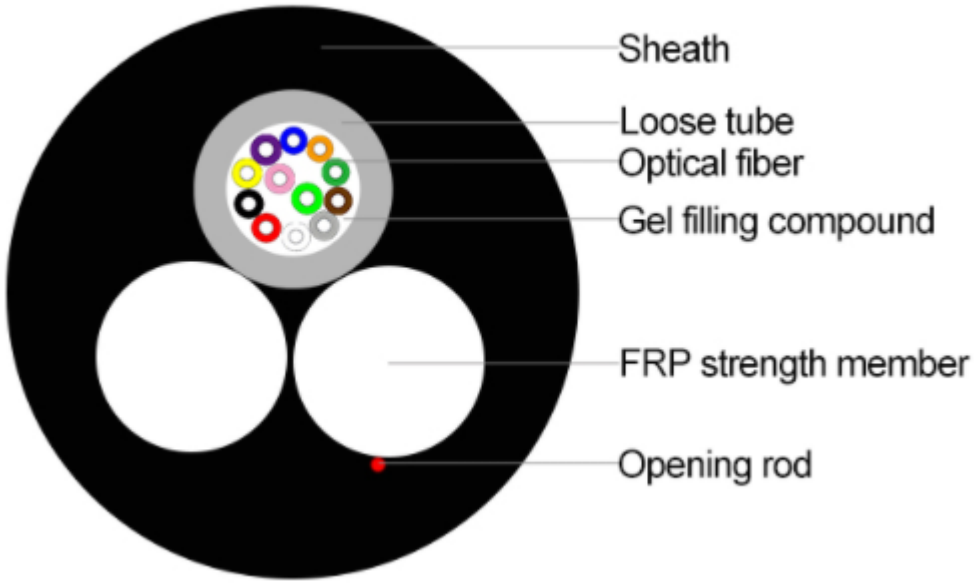
Cable Technical Specification

ASU-2-24-G.652D

1 Optical Fiber Cable Type

Item	Model	Fiber Type	Fiber Count
Parameter	ASU	G.652D	2-24
Note	All Dielectric Self-Supporting Cable	Compliant with ITU-T ITU-T G.652	2-24Single-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
2-24	6.6-8.5	37-60	800	1300	300	800	10D	20D

5 Cable Performance

Materials

Item	Material/Parameter	Specification
Fiber Material	Silica	Complies with G.652
Loose tube	Material	PBT
CSM	FRP	
Outer jacket	Material	MDPE
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

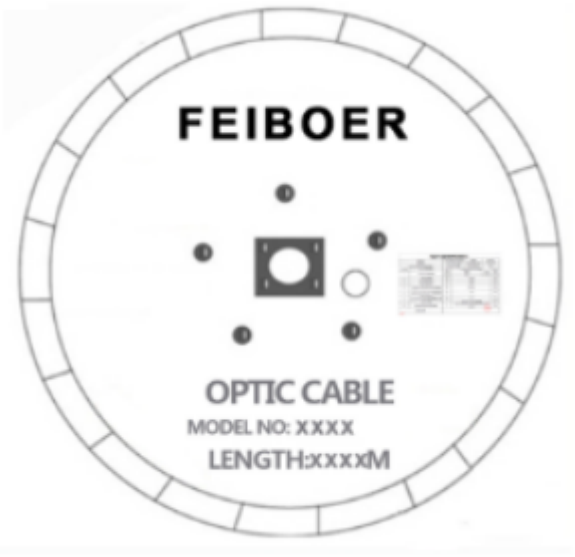
Note: When the fiber count per loose tube exceeds 12, fibers beyond 12 follow the color sequence above with color band/dot marking to distinguish (e.g., #13=Blue+band1, #14=Orange+band1...).

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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