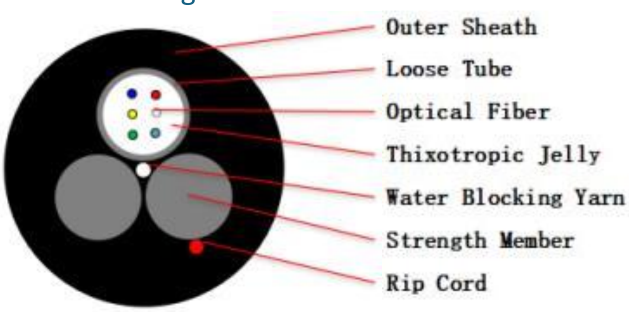
ASU 200M
(6F-24F)

Preparation date: 10/10/2024
Vision 1.0

1. Cross-sectional drawing of cable



2. Fiber and loose buffer tube identification

2.1 The Color Code of the Individual Fibers

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

Note: Select according to the number of fibers.

2.2 The Color Code of the Individual Loose Tubes

No.	Color
1	Natural

3. Cable construction

Items		Unit	Description unarmored		
No. of Fibers per Tube		/	6	12	24
Structure		/	1		
Fiber type		/	G.652.D		
Strength member	Material	/	FRP		
	Diameter	mm	2.6		

Loose Buffer Tube	Material	/	PBT
	Diameter	mm	2.5
	Thickness		0.3

Water Blocking Material		/	Swellable cable yarn
Ripcord number		/	1
Outer Sheath	Material	/	MDPE
	Sheath Color	/	Black
	Thickness	mm	1.4
Cable diameter (±0.5)		mm	8.4
Cable weight (±10%)		kg/km	64
Tensile performance	Short term	N	7500
	Long term	N	3000
Span		m	200

4. Optical fiber

Performance of the cabled fiber (ITU-T G.652)

Characteristics	Unit	Specification
1. Cladding Diameter	µm	125±0.7
2. Core/cladding Concentricity Error (ECC)	µm	≤0.6
3. Cladding Non-circularity	%	≤1.0
4. Coating Diameter	µm	245±5
5. Coating/cladding Concentricity Error (OCE)	µm	≤12
6. Attenuation at 1310nm	dB/km	≤0.38
7. Attenuation at 1550nm	dB/km	≤0.23
8. Mode Field Diameter at 1310nm (1310nm MFD)	µm	9.2±0.4
9. Cut-off Wavelength (λcc)	nm	≤1260
10. Zero Dispersion Wavelength (λ_0)	nm	1300~1324

4. Performance

5.1 Min. bending radius: 10 times of cable diameter (static)

20 times of cable diameter (dynamic)

5.2 Application temperature range

Operation : -40₀C to +60₀C

Installation : -10₀C to +50₀C

5.3 Main mechanical & environmental performance test

Items	Test method	Acceptance conditions
Tensile performance IEC 60794-1-21-E1	- Load: Short term tension - Mandrel dia.: ≥30D - Length of cable: ≥ 50m - Maintained time: 1h	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.

Crush IEC 60794-1-21-E3	- Load: 1000 N - Sample size : 100mm - Maintained time: 1min	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Impact IEC 60794-1-21-E4	- Radius of impacted surface: 12.5 mm - Points of impact: 5 - Times of per point: 1 - Impact energy: 4.5N·m	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Repeated Bending IEC 60794-1-21-E6	- Bending radius: 30 x OD - No. of cycle: 100 - Bending angle: ±90° - Load: 150N	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Torsion IEC 60794-1-21-E7	- Length: 1m - Twist angle: ±90° - No. of cycle: 10 - Load: 250N	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Temperature cycling IEC 60794-1-22-F1	- Temperature: -40℃~+60℃ - Time of each step: 12h - Number of cycle: 2	- Loss change ≤ 0.1dB/km@1550nm. - No fiber break and no sheath damage.
Water penetration IEC 60794-1-22-F5B	- Water height:1m - Length:3m - Time:24h	-No water leakage