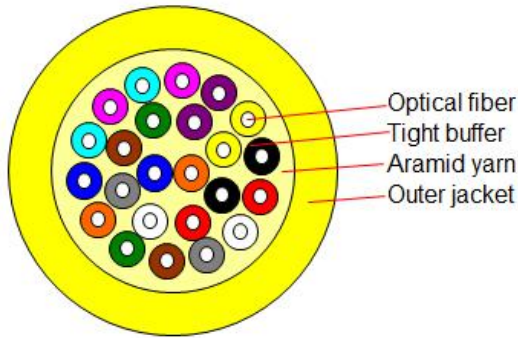


GJPFJH-12, 24B6

1. Cable cross-section



2. Cable Specification

2.1 Introduction

Tight buffer fibers, aramid yarn as strength member, then LSZH jacket.

2.2 Fiber color code

No.	1
Color	Natural

2.3 Tight buffer color code

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua
No.	13	14	15	16	17	18
Color	Blue with black tracer	Orange with black tracer	Green with black tracer	Brown with black tracer	Gray with black tracer	White with black tracer
No.	19	20	21	22	23	24
Color	Red with black tracer	Black with white tracer	Yellow with black tracer	Violet with black tracer	Pink with black tracer	Aqua with black tracer

2.4 Optical fiber type and properties

G657A2 Characteristic of Optical Fiber

Item	Unit	Specification
		G. 657A2
Mode field diameter	1310nm	8.6 ± 0.4
	1550nm	9.6 ± 0.5
Cladding diameter	μm	125.0 ± 0.7
Cladding non-circularity	%	≤ 1.0

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Item	Unit	Specification	
		G. 657A2	
Core concentricity error	μm	≤0.5	
Coating diameter	μm	245 ± 5	
Coating/cladding concentricity error	μm	≤12	
Cable cut-off wavelength	nm	≤ 1260	
Attenuation Coefficient	1310nm	dB/km	≤0.35
	1550nm	dB/km	≤0.21
Macro-bend loss (1 turn,7.5mm radius)	1550nm	dB	≤0.5
	1625nm	dB	≤1.0
Proof stress level	kpsi	≥100	

Other parameters meet standard ITU-T G.657.

2.5 Cable structure and parameter

Item	Contents	Unit	Value	
Optical Fiber	/	/	12	24
Tight buffer fiber	Diameter	mm	0.9±0.05	
	Material	/	LSZH	
Strength member	Material	/	Aramid yarns	
Outer jacket	Diameter	mm	6.3±0.2	8.0±0.2
	Material	/	LSZH	
	Color	/	Yellow	
	Thickness	mm	0.9±0.1	1.0±0.1
Tensile performance	Short term	N	440	660
Crush	Short term	N/100mm	1000	
Cable attenuation		dB/km	≅ 0.4 at 1310nm, ≅ 0.3 at 1550nm	
Cable weight (Approx.)		kg/km	35	59

3. Characteristic of Optical Cable

3.1 Min. bending radius

Static: 10 x cable diameter

Dynamic: 20 x cable diameter

3.2 Application temperature range

Operation: - 20℃ ~ +70℃

Installation: -5℃ ~ +60℃

Storage/transportation: - 20℃ ~ +70℃

3.3 Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load: Short term tension - Length of cable: ≥ 50m - Load time: 5min	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.

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Item	Test Method	Acceptance Condition
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ after test. - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 1J	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ after test. - No fiber break and no sheath damage.
Repeated Bending IEC 60794-1-2-E6	- Bending radius: 20 x OD - No. of cycle: 100	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ after test. - No fiber break and no sheath damage.
Torsion IEC 60794-1-2-E7	- Length: 1m - Twist angle: $\pm 180^\circ$ - No. of cycle: 10	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ after test. - No fiber break and no sheath damage.
Cable bend IEC 60794-1-2-E11	- Diameter of mandrel: 20 x OD - Number of turns: 6 - Number of cycles: 10	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ after test. - No fiber break and no sheath damage.
Temperature Cycling IEC 60794-1-2-F1	- Temperature: $-20^\circ\text{C} \sim +70^\circ\text{C}$ - Time of each step: 8h - Number of cycle: 2	- Loss change $\leq 0.4\text{dB}/\text{km}@1550\text{nm}$. - No fiber break and no sheath damage.
Flame retardant IEC 60332-1	- Pass the single cable vertical flame propagation test.	



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