

Technical Specification

GYQFXTBY-2 G.657A1+24AWG

This specification covers the general requirements of optical cable.
The technical requirement in this specification the requirement of ITU -T and IEC.

1. CABLE CONSTRUCTION

1.1. Cross-sectional Drawing of GYQFXTBY-2 G.657A1+24AWG



1.1.1. Identification of fibers and loose tubes

Color code of loose tube is natural. The color code of fibers within loose tube: blue, orange.

1.2. Main Mechanical performance of the cable

Cable type	Tension (N)	Crush (N/100mm)
GYQFXTBY-2 G.657A1+24AWG	800	1000

1.3. Diameter and weight of the cable

Cable type	Outer diameter (mm)	Approx. Weight kg/km
GYQFXTBY-2 G.657A1+24AWG	3.9(±0.3)*8.0(±0.5)	28

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1.4. Physical, mechanical and environmental performance and tests

TEST	STANDARD	SPECIFIED VALUE	ACCEPTANCE CRITERIA
Tension	IEC 60794-1-21-E1	Diameter of chuck drums: $\geq 30 \times OD$ Length of test: $\geq 50m$ Velocity of transfer device: 10mm/min Load: see clause 3.2 Duration: 1 min	After the tension deleted, $\Delta\alpha < 0.1dB$ @1550nm
Crush	IEC 60794-1-21-E3	Load: see clause 3.2 Duration: 1 min	After the tension deleted, $\Delta\alpha < 0.1dB$ @1550nm; No fiber breakage and the cable sheath shall not be cracked.
Impact	IEC 60794-1-21-E4	Energy of impact: 450g Highness of impact: 1m Number of impacts: at least 5 times	No fiber breakage and the cable sheath shall not be cracked.
Repeated bending	IEC 60794-1-21-E6	Diameter of pulley: $20 \times OD$ Number of bends: 30 times Load: 150N	No fiber breakage and the cable sheath shall not be cracked.
Torsion	IEC 60794-1-21-E7	Axial Load: 150N Distance between fixed and rotation clamp: 1m Number of rotations: 10 times Angle of rotations: $\pm 90^\circ$	No fiber breakage and the cable sheath shall not be cracked.
Temperature cycling	IEC 60794-1-22-F1	$-20^\circ C \sim +60^\circ C$, 2 cycles, 8h	$\Delta\alpha < 0.1dB/km$, @1550nm
Water penetration	IEC 60794-1-22-F5	Sample 3m, water 1m, 24h	No water leakage

2. PACKING AND MARKING

2.1. Cable and length marking

The sheath shall be marked with white characters at intervals of one meter with following information. Other marking is also available if requested by customer.

- 1) Name of the manufacturer
- 2) Cable type and fiber counts
- 3) Year of manufacture
- 4) Length marking
- 5) Requested by customer

5000 FT

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2.2. Cable packing

2.2.1. Each length of the cable shall be wound on a separate reel. Standard length of cable shall be 5000 FT, other cable length is also available if requested by customer.

2.2.2. Both ends of the cable shall be sealed with suitable plastic caps to prevent the entry of moisture during shipping, handling and storage, and the A-end shall be indicated with red cap, the B-end shall be indicated with green cap. The cable ends shall be securely fastened to the reel. At least 5,0 ft meter of the cable inner end shall be remained for test purpose.

2.2.3. The cable reel shall be wooden materials. It is not exceeding 7,8 ft meters in diameter and 5,0 ft meters in width. The diameter of the center hole is less than 0.36 ft, and the reel shall be protected the cable form the damage during shipping, storage and installation.

2.2.4. Details given below shall be distinctly marked with a weather proof materials on the reel flange, at the same time, a Quality Certification and a Test Record shall be provided with the reel when it is delivered.

- 1) Purchaser's Name
- 2) Cable type and fiber counts
- 3) Length of cable in meters
- 4) Gross weight and in kilograms
- 5) Name of the manufacturer
- 6) Year of manufacture
- 7) Arrow showing the direction the reel shall be rolled
- 8) Other shipping mark is also available if requested by customer.