



Optical Micro Fiber Cable TGT-MY2H1

1 GENERAL

- 1-1.** This specification covers the requirements for the supply of single-mode optical fiber cables.
1-2. The single mode optical fiber cable comply with the requirements of this specification and generally meet any latest relevant ITU-T Recommendation G.652D (Low loss type) YOFC brand.

2 FIBER CHARACTERISTICS

2-1. Geometric characteristics

Item		Construction
Mode field diameter	At 1310nm	9.2±0.4μm
Cladding diameter		125±1μm
Core concentricity error		≤0.6μm
Cladding non-circularity		≤1.0%
Cut-off wavelength (λ _{cc}) (for cable)		≤1260nm
Cut-off wavelength (λ _c) (for fiber)		1180nm~1330nm
Primary coating diameter	(Not included color layer)	245±10μm
	(Included color layer)	250±15μm
Coating-cladding concentricity error		≤12.5μm
Fiber curl radius		≥4m

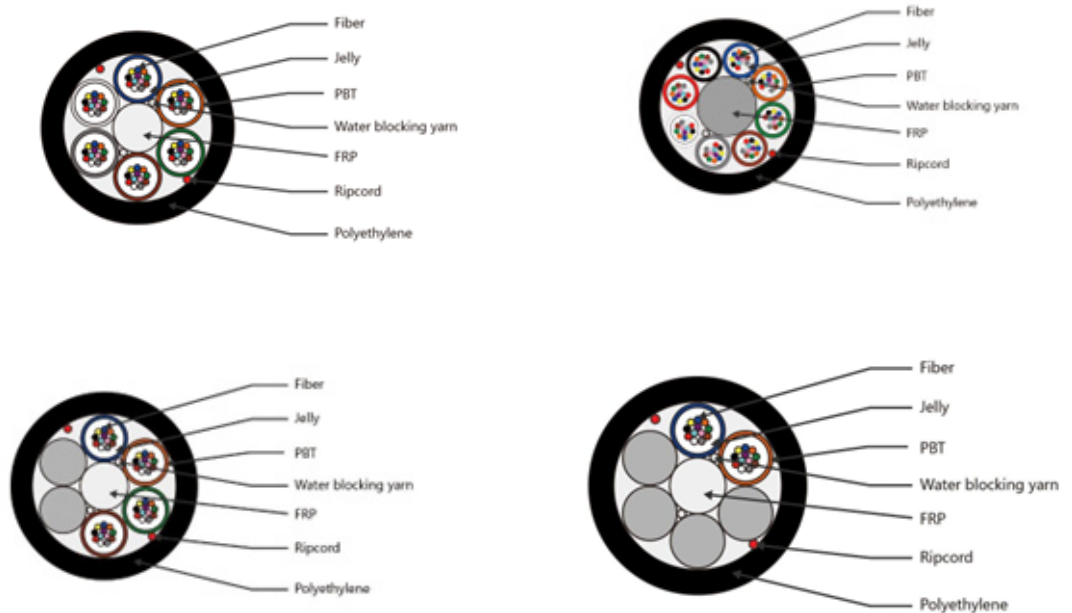
2-2. Transmission characteristics

Item		Performance
Attenuation	At 1310nm	≤0.34dB/km
	At 1550nm	≤0.19dB/km
Macro bending loss	Φ=60mm, 100turns at 1550nm	≤0.1dB
Chromatic dispersion	Within 1288~1339nm	≤3.5ps/nm·km
	At 1550nm	≤18ps/nm·km
Zero dispersion wavelength		1300~1324nm
Zero dispersion slope		≤0.092ps/nm ² ·km

MICRO CABLE DATA SHEET

3 OPTICAL FIBER CABLE

3-1. Cross section



Technical Characteristics

The unique extruding technology provides the fibers in the tube with good flexibility and bending endurance

- The unique fiber excess length control method provides the cable with excellent mechanical and environmental properties
- Multiple water blocking material filling provides dual water blocking function

Construction

1. Outer sheath (HDPE, Black)
2. Loose tube
3. Fiber and jelly
4. Central strength member (FRP)
5. Water blocking yarn
6. Rip cord*1

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Fiber count	24F	48F	72F	96F	144F
Model Number	TGT-MY2H1-24	TGT-MY2H1-48	TGT-MY2H1-72	TGT-MY2H1-96	TGT-MY2H1-144
No of loose tube / filler	2/4	4/2	6/0	8/0	12/0
Fiber No. per tube	12				
Loose tube diameter	1.5±0.1mm				
Central strength member diameter	1.6±0.1mm			1.8±0.1mm	
Outer sheath thickness	Nominal 0.45mm			Nominal 0.5mm	
Cable OD	5.6mm			7.0mm	7.8mm
Cable weight	26kg/km			46kg/km	58kg/km
Operation temperature range	-20 deg C to + 70 deg C				
Installation temperature range	-10 deg C to + 50 deg C				
Transport and storage temperature range	-20 deg C to + 70 deg C				
Tensile load	550N				
Crush resistance: short/long term(N/10cm)	Short term:500;Long term:200				
Minimal installation bending radius	20 x OD				
Minimal operation bending radius	10 x OD				

Color code scheme

Fiber color	blue	orange	green	brown	grey	white	red	black	yellow	violet	pink	aqua
Tube color	blue	orange	green	brown	grey	white	red	black	yellow	violet	pink	aqua

4 TEST LIST

4-1. Tension Loading Test

Test Standard	IEC 60794-1-2 E1
Sample length	No less than 50 meters
Load	tension load
Duration time	1 minute
Test result	Additional attenuation:≤0.1dB after test
	No damage to outer jacket and inner elements

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4-2. Crush/Compression Test

Test Standard	IEC 60794-1-2 E3
Load	Max. crush load
Duration time	1 minute
Test number	3
Test result	Additional attenuation: ≤ 0.1 dB after test
	No damage to outer jacket and inner elements

4-3. Impact Resistance Test

Test Standard	IEC 60794-1-2 E4
Impact energy	1J
Radius	300mm
Number of impacts	One in 3 different places spaced not less than 500 mm apart
Test result	No damage to outer jacket and inner elements

4-4. Torsion/Twist Test

Test Standard	IEC 60794-1-2 E7
Sample length	1m
Angles	± 180 degree
cycles	10
Test result	Additional attenuation: ≤ 0.1 dB after test
	No damage to outer jacket and inner elements

4-5. Bend Test

Test Standard	IEC 60794-1-2 E11A
Mandrel radius	20 X diameter of cable
Turn number	4
Number of cycles	3
Test result	No damage to outer jacket and inner elements

4-6. Repeated Bending Test

Test Standard	IEC 60794-1-2 E6
Bending radius	20 X diameter of cable
Cycles	25 cycles
Test result	Additional attenuation: ≤ 0.1 dB after test
	No damage to outer jacket and inner elements

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4-7. Temperature cycling Test

Test Standard	IEC 60794-1-2 F1
Temperature step	+20°C → -20°C → +70°C → 20°C
Time per each step	12 hrs
Cycles	2
Test result	Attenuation variation for reference value (the attenuation to be measured before test at +20±3°C) ≤ 0.15dB/km @1550nm and reversible

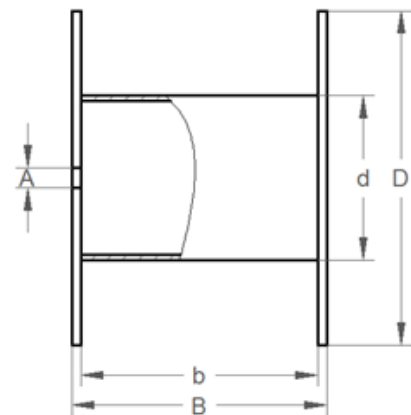
4-8. Water penetration Test

Test Standard	IEC 60794-1-2 F5
Height of water column	1m
Sample length	3m
Test time	24 hrs
Test result	No water leakage from the opposite of the sample

5 PACKING AND DRUM

5-1. Our cables are coiled on wooden drum. During transportation, right tools should be used to avoid damaging the package and to handle with ease. Cables should be protected from moisture; kept away from high temperature and fire sparks; protected from over bending and crushing; protected from mechanical stress and damage.

Wooden Drum (The barrel core is a metal structure)



MICRO CABLE DATA SHEET



Cable	D*d*B cm (weights kg) D: including seal plate thickness
Type	Length 4Km/reel

Note: The drum size & cable weight as above is estimated and final size & weight shall be confirmed before shipment.

5-2. The inner end and the outer end of cable are equipped with heat shrinkable end cap and the drum protected with strong wooden batten.

6 ORDERING INFORMATION

Part No	Core Type	No of Cores	OD-mm
TGT-MY2H1-24	YOFC-G652D	24	5.6±0.2
TGT-MY2H1-48	YOFC-G652D	48	5.6±0.2
TGT-MY2H1-72	YOFC-G652D	72	5.6±0.2
TGT-MY2H1-96	YOFC-G652D	96	7±0.2
TGT-MY2H1-144	YOFC-G652D	144	7.8±0.2