



## Mechanical Specifications

CABLE TYPE	FIBER COUNT	CABLE DIAMETER (MM)	CABLE WEIGHT (KG/KM)	TENSILE STRENGTH (N) (LONG/SHORT TERM)	CRUSH RESISTANCE (N/100MM) (LONG/SHORT TERM)	BENDING RADIUS (MM) (STATIC/DYNAMIC)
BTDF8A	1	2.0±0.02 × 5.2±0.02	21	300/600	1000/2200	10D/20D
BTDF8A	2	2.0±0.02 × 5.2±0.02	22	300/600	1000/2200	10D/20D
BTDF8A	4	2.0±0.02 × 5.4±0.02	23	300/600	1000/2200	10D/20D

CABLE TYPE	FIBER COUNT	STRENGTH MEMBER (mm)	MESSENGER (mm)	CERTIFICATES
BTDF8A	1	FRP Fiber-reinforced polymer Φ: 0.5 ±0.02	Steel Wire: Strength member Φ: 1.0 ±0.02	ISO9001, UL, RoHS, CPR (EN 50575)
BTDF8A	2	FRP Fiber-reinforced polymer Φ: 0.5 ±0.02	Steel Wire: Strength member Φ: 1.0 ±0.02	ISO9001, UL, RoHS, CPR (EN 50575)
BTDF8A	4	FRP Fiber-reinforced polymer Φ: 0.5 ±0.02	Steel Wire: Strength member Φ: 1.0 ±0.02	ISO9001, UL, RoHS, CPR (EN 50575)

The information in this table is for reference only and subject to change without notice. Values such as dimensions, weight, tensile strength, and certifications may vary slightly due to manufacturing tolerances or testing conditions. Ensure compatibility with project requirements and local regulations. Beyondtech is not liable for improper or unintended use. For specific details, contact our technical team.

## Optical and Mechanical Properties of G652.D and G657.A2 Fibers

CHARACTERISTICS	UNIT	G652.D	G657.A2
Fiber type	Type	G652.D	G657.A2
Attenuation at 1310 nm	dB/km	~0.35 dB/km	~0.35-0.40 dB/km
Attenuation at 1550 nm	dB/km	~0.20 dB/km	~0.21-0.25 dB/km
Attenuation at 1625 nm	dB/km	~0.30 dB/km	~0.25-0.30 dB/km
Chromatic Dispersion at 1310 nm	ps/nm·km	~0 ps/nm·km	
Chromatic Dispersion at 1550 nm	ps/nm·km	~17 ps/nm·km	
Bending Tolerance	Qualitative	Low	High
Zero Dispersion Slope	ps/nm <sup>2</sup> ·km	~0.092 ps/nm <sup>2</sup> ·km (at λ <sub>0</sub> )	
Zero Dispersion Wavelength (λ <sub>0</sub> )	nm	1300-1324 nm (typical ~1310 nm)	
Cut-off Wavelength (λ <sub>c</sub> )	nm	≤1260 nm	
Attenuation vs. Bending (60mm x 100 turns) at 1310 nm	dB	~0.8-1.2 dB	≤0.03 dB
Attenuation vs. Bending (60mm x 100 turns) at 1550 nm	dB	~1.5-2.5 dB	≤0.03 dB
Mode Field Diameter (MFD) at 1310 nm	μm	8.6 - 9.2 μm	8.6 - 9.0 μm
Mode Field Diameter (MFD) at 1550 nm	μm	9.5 - 10.5 μm	9.0 - 9.5 μm
Core-Clad Concentricity Error	μm	≤0.5 μm	
Cladding Diameter	μm	125 ± 1 μm	
Cladding Non-circularity	%	≤0.8%	≤0.8%
Coating Diameter	μm	245 ± 10 μm	245 ± 10 μm
Proof Test	GPa	≥0.69 GPa (69 kpsi)	≥0.69 GPa (69 kpsi)

This table is based on standard industry data for G652.D and G657.A2 optical fibers manufactured by Beyondtech. The values presented are representative but may vary depending on the specific thread and manufacturing conditions. For critical applications, please refer to the official technical specifications provided by Beyondtech or the thread manufacturer. Beyondtech assumes no responsibility for the use of this information without prior confirmation.

<p><b>A</b></p> <p>Beyondtech</p>	<p><b>B</b></p> <p><b>Cable Outer Sheath:</b></p> <ul style="list-style-type: none"> <li>• LSZH (Low Smoke Zero Halogen)</li> <li>• PE (Polietileno)</li> <li>• HDPE (High Density PE)</li> <li>• PVC (Polyvinyl Chloride)</li> </ul>	<p><b>C</b></p> <p><b>Strength Member type:</b></p> <ul style="list-style-type: none"> <li>• FRP: fiber-reinforced polymer</li> <li>• KFRP: Kevlarr-reinforced Polymer</li> <li>• AFRP: Aramid-reinforced Polymer</li> <li>• SW: Steel Wire</li> </ul>
<p><b>D</b></p> <p><b>Messenger Member:</b></p> <ul style="list-style-type: none"> <li>• FRP: fiber-reinforced polymer</li> <li>• KFRP: Kevlarr-reinforced Polymer</li> <li>• AFRP: Aramid-reinforced Polymer</li> <li>• SW: Steel Wire</li> </ul>	<p><b>E</b></p> <p><b>N° Fibers:</b></p> <p>1, 2 or 4</p>	<p><b>F</b></p> <p><b>Standard :</b></p> <ul style="list-style-type: none"> <li>• G.652.D</li> <li>• G.657.A1</li> <li>• G.657.A2</li> <li>• G.657.B3</li> </ul>

Other options are available.  
Ask your Beyondtech sales representative.

Custom cabling per request



For more information on Beyondtech Premium Warranty, visit [beyondtech.us/warranty](https://beyondtech.us/warranty)

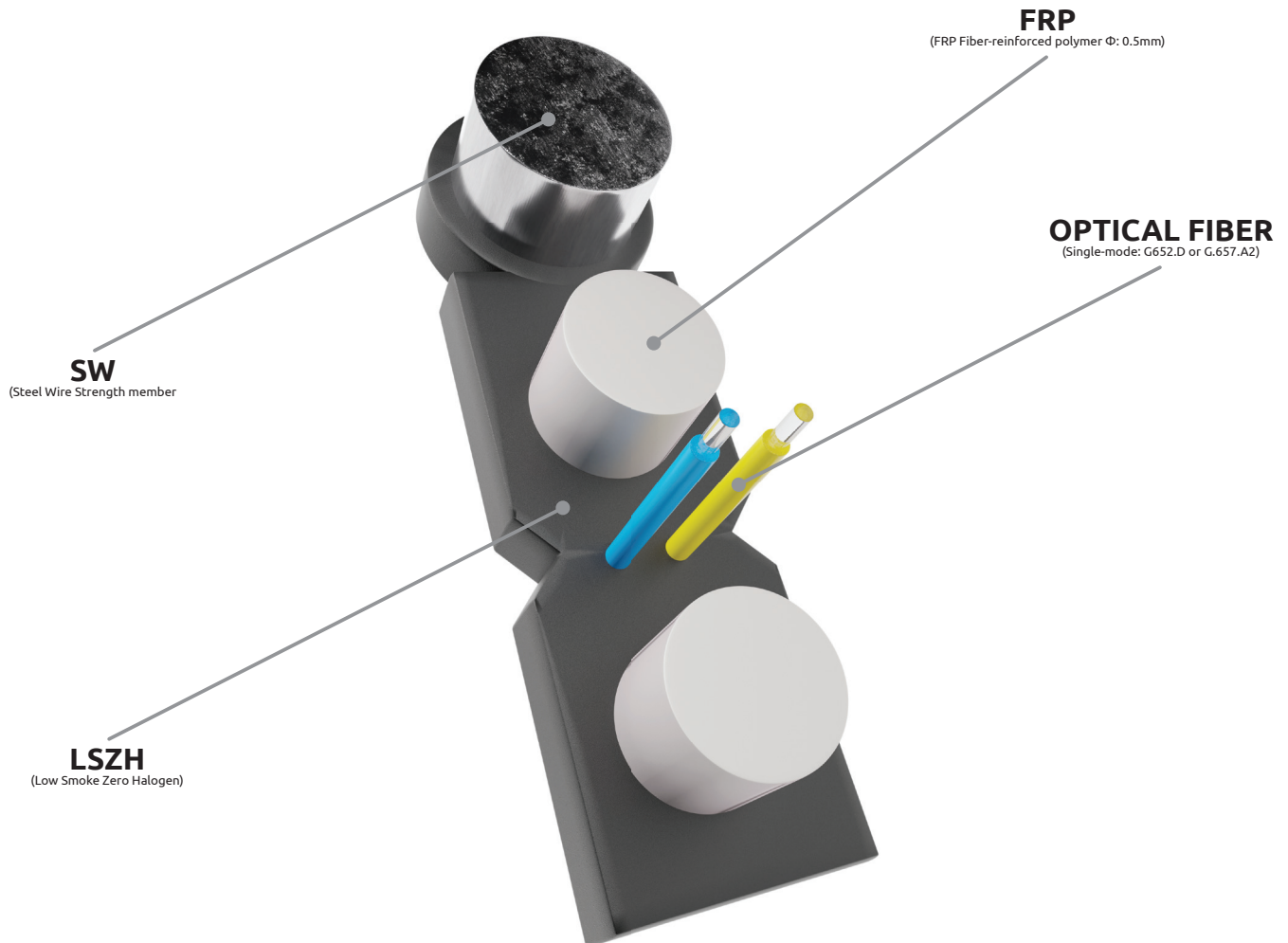


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**Order Code:** BTDF8A

**Fiber Type:** Single-mode: G652.D or G.657.A2

**Wavelengths:** 1310 nm, 1490 nm, 1550 nm and 1625 nm.

**Number of Fibers:** 1, 2, and 4 strings available

**Color Coding:** EIA/TIA-598

**OD of cable(mm):** 1, 2 String: (2.0 +/- 0.1) x (5.2+/-0.2) - 4 String: (5.4+/-0.2)

**Test Methodology:** IEC 60794-1-E1 / IEC 60794-1-E3 / IEC 60794-1-E4 / IEC 60794-1-E6 / IEC 60794-1-E7 / IEC 60794-1-F1

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