LEAD Fiber Optics
PRODUCT CATALOGUE

FIBER COLLIMATOR
Fiber Collimator

Fiber Collimators are devices used to expand and collimate the output light at the fiber end, or to couple light beams between two fibers. They are a module that combine a fiber and a lens, and has a function that produces parallel beams. When the fiber collimators are manufactured, the positions of the fiber and lens are adjusted so that parallel beams can be obtained, and this generally requires extremely fine adjustments. The more energy the fiber collimator is able to gather form the source and launch into the fiber end.

Fiber collimator is the basic elements for in line fiber components, such as Fiber Optic attenuator, Optical Isolator, Optical Switch, CWDM module, DWDM module, Optical circulator.

The stronger signal strength and the higher the system efficiency. The higher efficiency means time and money saved in fewer system components and greater design freedom. Our Fiber Collimators are ultra reliable devices featuring low insertion loss, low back reflection, small beam divergence, and excellent optical properties over wide range of temperature and wavelength applications.

LFO provides both single mode fiber collimator (1310nm or 1550nm) and multi mode fiber collimator (850um or 1310nm). The Lens diameter of fiber collimator is 1.8mm or 1.0mm. Package in metal holder or glass tube and fiber length is 1.0mm or 1.5mm. These highly reliable single mode fiber collimators or multimode fiber collimators also come with your choice of various types of pigtail and connector terminations to meet your requirements.
**LFO Fiber Collimator Series**

**Fiber Collimator**

The fiber collimator provides collimated light beam to or from the optic fiber. It is widely used in almost all micro optic components. LFO Fiber Collimators are ultra reliable devices featuring low insertion loss, low back reflection, small beam divergence, and excellent optical properties over wide range of temperature and wavelength applications.

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Fiber Collimator

Features
- Low insertion Loss
- Low back reflection
- Small Beam divergence
- Miniature in size
- Light weight
- Singlemode or multimode application
- Environmentally stable

Applications
- Optical devices
- Optical switching
- Fiber sensing
- Testing equipment

Specifications

<table>
<thead>
<tr>
<th>ITEM</th>
<th>VALUES</th>
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</thead>
<tbody>
<tr>
<td><strong>ITEM</strong></td>
<td><strong>VALUES</strong></td>
</tr>
<tr>
<td>Mode Type</td>
<td>Singlemode</td>
</tr>
<tr>
<td>Wavelength, nm</td>
<td>1310 or 1550</td>
</tr>
<tr>
<td>Spectral Width, nm</td>
<td>≥30</td>
</tr>
<tr>
<td>Typical Insertion Loss, dB</td>
<td>0.2 0.6 0.8</td>
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<tr>
<td>Maximal Insertion Loss, dB</td>
<td>0.3 0.8 1.0</td>
</tr>
<tr>
<td>Return Loss, dB</td>
<td>≥55</td>
</tr>
<tr>
<td>Beam Divergence, deg.</td>
<td>≤0.25 ≤1</td>
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<tr>
<td>Acceptance angel, deg.</td>
<td>≤0.15 ≤1</td>
</tr>
<tr>
<td>Beam offset angle, deg.</td>
<td>≤1</td>
</tr>
<tr>
<td>Beam Diameter, mm</td>
<td>≤0.5 ≤1</td>
</tr>
<tr>
<td>Working Distance, cm</td>
<td>0.5~1.5</td>
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<tr>
<td>Operation Temperature, °C</td>
<td>-20°C~ 60°C</td>
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**Fiber Collimator Ordering Information**

- **Connector**
  - 11-ST
  - 21-FC/PC
  - 22-FC/APC
  - 31-SC/PC
  - 32-SC/APC
  - 41-LC/PC
  - 51-MU/PC
  - 00-None
  - XX-Others

- **Wavelength**
  - 31-1310 nm
  - 55-1550 nm
  - 85-850 nm (Multimode only)
  - XX-Other

- **Fiber type**
  - 1-Singlemode fiber
  - 2-corning 50/125um
  - 3-corning 62.5/125um
  - X-Others

- **Pigtail length**
  - 050- 50cm
  - 100- 100cm
  - 150- 150cm
  - 200- 200cm
  - XXX-Others

- **Cable type**
  - 01-coated fiber(250um)
  - 02-loose tube
  - XX-Others

- **Package**
  - 01-w/metal tube
  - 02-w/o metal tube

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**LEAD Fiber Optics Co., Ltd.**

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