2 μm High Power Fiber Collimator with Isolator
(100W CW, SM, LMA, DCD, PM Fibers)

(protected by patents: US7920763B1 US7715664B1)

Features
- High Power Handling
- High Isolation
- High Reliability
- Low IL, PDL & TDL
- Cost Effective

Product Description
This passive device transmits high power light from input fiber into a free space collimated output beam while blocking the unwanted light from back reflection and scattering. Agiltron's proprietary magnetic-optics technology and advanced end-cap technique enable industrial leading performance in power handling, low loss, reliability, and cost effective. Agiltron currently provides a full range of polarization-independent, polarization maintaining, and custom design versions with a broad wavelength coverage and various output beam diameters. We have experience to incorporate special fibers.

Performance Specifications

<table>
<thead>
<tr>
<th>FSOI High power Isolator</th>
<th>Min</th>
<th>Typical</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Wavelength</td>
<td>2000</td>
<td></td>
<td></td>
<td>nm</td>
</tr>
<tr>
<td>Insertion Loss[1]</td>
<td>0.6</td>
<td>1.2</td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Isolation</td>
<td>20</td>
<td>25</td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Polarization Dependent Loss</td>
<td>0.1</td>
<td>0.2</td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Polarization Mode Dispersion</td>
<td>0.1</td>
<td>0.2</td>
<td></td>
<td>ps</td>
</tr>
<tr>
<td>Return Loss</td>
<td>40</td>
<td>50</td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Optical Power Handling[1][4]</td>
<td>100</td>
<td></td>
<td></td>
<td>W</td>
</tr>
<tr>
<td>Beam Size[3]</td>
<td>0.4</td>
<td>1</td>
<td>5.5</td>
<td>mm</td>
</tr>
<tr>
<td>Fiber Type</td>
<td>See Order Information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-10 to 60</td>
<td></td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td>Storage Humidity</td>
<td>5% to 95% (No Condensation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Package Dimension[5]</td>
<td>33x34x110</td>
<td></td>
<td></td>
<td>mm</td>
</tr>
</tbody>
</table>

Note:
[1] Measured without connectors
[3] For beam size larger than 1 mm, please call us.
[5] For beam larger 5 mm, the package is only estimated. The real size may be different.
[6] For PM fiber only.

Applications
- Laser Pump Source
- Optical Fiber Amplifier
- Laser Manufacturing
- Laser Marking
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## Mechanical Footprint Dimensions (mm)

Typical 2000 nm isolator package dimension (only for 1 mm beam size)

![Mechanical Footprint Dimensions](image)

## Ordering Information

<table>
<thead>
<tr>
<th>FSOI-</th>
<th>Type</th>
<th>Wavelength</th>
<th>Power handling</th>
<th>Beam size</th>
<th>Fiber Type</th>
<th>Fiber Length</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM=1</td>
<td>2000nm</td>
<td>=2</td>
<td>Special=0</td>
<td>1.0mm=1</td>
<td>SMF28=2</td>
<td>0.25M=1</td>
<td>None=1</td>
</tr>
<tr>
<td>PM=2</td>
<td></td>
<td>=2</td>
<td>Special=0</td>
<td>2.0mm=2</td>
<td>PM 1550=3</td>
<td>0.5M=2</td>
<td>FC/PC=2</td>
</tr>
<tr>
<td></td>
<td>Special=0</td>
<td>10W=01</td>
<td></td>
<td>3.0mm=3</td>
<td>SM1950=4</td>
<td>1.0 M=3</td>
<td>FC/APC=3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20W=02</td>
<td></td>
<td>4.0mm=4</td>
<td>SM2000=5</td>
<td>Special=0</td>
<td>SC/PC=4</td>
</tr>
<tr>
<td></td>
<td>Special=0</td>
<td>30W=03</td>
<td></td>
<td>5.0mm=5</td>
<td>PM1990=6</td>
<td>Special=0</td>
<td>SC/APC=5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50W=05</td>
<td></td>
<td>Special=0</td>
<td>H1060=1</td>
<td>Special=0</td>
<td>ST/PC=6</td>
</tr>
<tr>
<td></td>
<td>Special=0</td>
<td>100W=10</td>
<td></td>
<td></td>
<td>PM980=9</td>
<td>Special=0</td>
<td>LC/PC=7</td>
</tr>
</tbody>
</table>

Bare fiber=1
900μm loose tube=3
3 mm loose cable=4
Armor cable (3 mm)=6
Armor cable (5 mm)=7

Special=0

None=1
0.25M=1
0.5M=2
1.0 M=3
Special=0

SMF28=2
PM 1550=3
SM1950=4
SM2000=5
PM1990=6
H1060=1
PM980=9

0.25M=1
0.5M=2
1.0 M=3
Special=0

None=1
FC/PC=2
FC/APC=3
SC/PC=4
SC/APC=5
ST/PC=6
LC/PC=7
LC/APC=8
SMA905=9
Special=0