Ultra-stable fibered beam splitters/combiners

Muquans offers fully integrated fibered splitters/combiners. These modules feature a remarkable stability and are able to operate at high power.

General architecture

This unique line of modules achieves ultra-stable power splitting or combining with an adjustable coupling ratio. Exploiting micro-optics technologies, the optical architecture relies on a classical design based on the utilization of a manually adjustable half-wave plate and a polarizing beam splitter.

Thanks to a fully integrated architecture and assembling processes developed for optical fiber telecommunications, these modules feature an exceptional alignment stability over an extended operating temperature range. It also removes any constraint of optical alignment or optics cleaning.
**Main features**

- Operating wavelengths [1500 nm; 1600 nm] or [750 nm; 800 nm]
- Widely adjustable splitting ratio: 0 to 100 %
- Several configurations available: 1x2, 1x3 and 2x3 (other in option)
- Possibility to integrate a monitoring photodiode and mechanical shutters

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Insertion loss</td>
<td>&lt; 2 dB</td>
</tr>
<tr>
<td>PER</td>
<td>25 dB typ.</td>
</tr>
<tr>
<td>Maximum input power</td>
<td>10 W</td>
</tr>
<tr>
<td>Power stability</td>
<td>depends on the seed laser</td>
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<tr>
<td>Dimensions (1x3)</td>
<td>15 cm x 4 cm x 30 cm</td>
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</tbody>
</table>

**Other related products offered by Muquans**

- High-power frequency-controlled laser system
- High-power high-efficiency frequency-doubling module
- High-performance and agile micro-wave synthesizers
- Ultra low noise electronics modules

**Contact**

Should you have any inquiry regarding our products or our technologies, please feel free to contact us.

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