

In-line Fiber Speckle Reducer (Beam Homogenizer)



FEATURES

- ✓ High Transmission Efficiency
- ✓ In-Line All-Fiber Structure
- ✓ Small and Compact Designs
- ✓ High Reliability and Stability

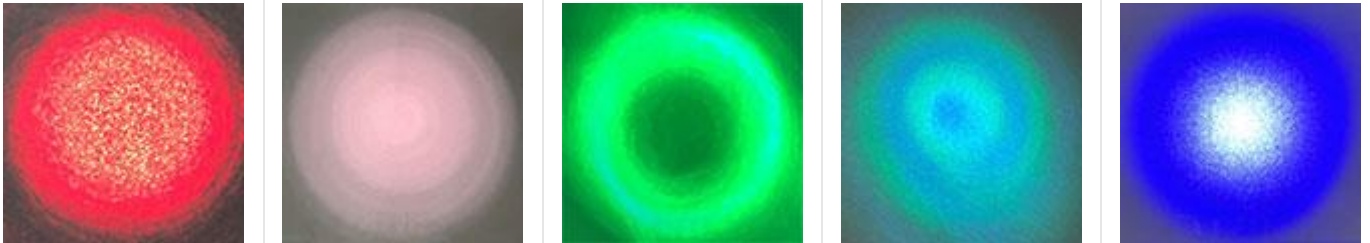
APPLICATIONS

- Reduce Laser Speckle Noise (Hot Spots)
- Eliminate Striations and Beam Non-uniformity
- Beam Homogenizing
- Laser Material Processing

LFIBER's in-line fiber speckle reducer (or beam homogenizer) is an all-fiber passive component which can efficiently homogenize speckle pattern and reduce unwanted modal noise (striations, hot spots, and beam non-uniformity) within a multimode optical fiber, producing a stable output beam that has fewer speckle hot spots and more uniform energy intensity profile.

Intensity Profile of the Output Beams: WITHOUT V.S. WITH In-line Fiber Speckle Reducer

Without LFIBER Speckle Reducer (Beam Homogenizer)



With LFIBER Speckle Reducer (Beam Homogenizer)



Optical Components, Fiber Optic Devices, Modules, and more.

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Specifications of In-line Fiber Speckle Reducer (Beam Homogenizer)

Fiber Core/Cladding (μm)	105/125, 200/220, 300/330, 400/440, 600/660, 800/830
Numerical Aperture	0.22
Operating Wavelength (nm)	400-1800 nm
Transmission Efficiency	$\geq 90\%$
Input/output Fiber Pigtail Length (m)	0.5, 1.0, 1.5, 2.0, etc.
Input/output Connectors	No connectors, SC/PC, FC/PC, ST, SMA905, etc.
Housing/Package Type	Steel tube, or box
Fiber Jacket/Tubing	Bare fiber (without jacket), $\Phi 900\mu\text{m}$ loose tube, $\Phi 2.0\text{mm}$ or $\Phi 3.0\text{mm}$ cable

Notes:

1. For requests please specify the fiber core diameter, numerical aperture (NA), operating wavelengths, operating power, connector types, and input/output fiber pigtail length.
2. This in-line fiber speckle reducer (fiber optical beam homogenizer) is customizable and the above specifications are subject to change without notice.

