Very Large Mode Area Fibers

IXF-VLMA-30-170-PM-YB

These Ytterbium-doped VLMA fibers have a very large mode araea that makes them particularly suited for integrating in high power amplifiers/lasers emitting at 1064nm. True singlemode behavior enabling diffraction limited beam quality output can be implemented by coiling the fiber and filter the higher-order modes. Precision preform and fiber draw manufacturing processes enable excellent fiber consistency and uniformity using total dopants vapor phase delivery process. Matching GRIN fiber is also available for monolithic integration with LMA 10-125 PM pump combiners

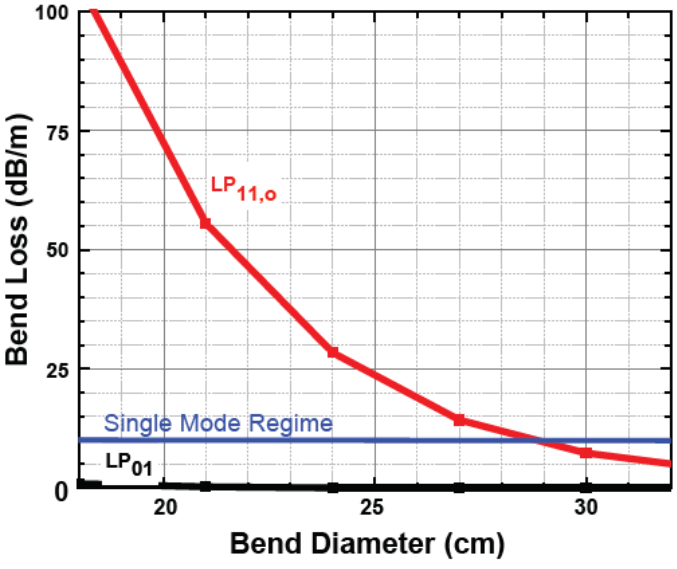
Partnership with PHOTONICS BRETAGNE
Product line PERFOS

FEATURES & BENEFITS

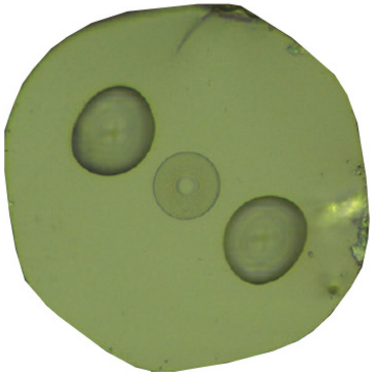
- Low nonlinearity
- Low core NA provides good beam quality
- All-solid design, photodarkening-free
- Matching GRIN fiber available

APPLICATIONS

- Medium to high average pulsed fiber amplifiers for material processing, life science, spectroscopy and defense
- 1030 - 1080 µm wavelengt range



IXF-VLMA-30-170-PM-YB bend induced propagation losses



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IXF-VLMA-30-170-PM-YB_edB_08022021
PSD-L-E-Q-86 L

IXF-VLMA-30-170 TECHNICAL SPECIFICATIONS

Parameters

Core diameter (µm)	30.0 +/- 1.0
Core concentricity error (µm)	< 0.3
Fiber outside diameter (µm)	170 +/- 5
Coating outside diameter (µm)	390 +/- 5
Coating type	low index
Fibre geometry	Hexagon Shaped
Max bend diameter for 10 dB/m LP_{11} loss (cm)	27
Minimum Bend Diameter Recommended (cm)	18
Background loss @ 1150 nm (dB/km)	< 10
Cladding loss @ 1300 nm (dB/km)	< 35
Cladding numerical aperture	≥ 0.46
Cladding Absorption @ 915nm (dB/m)	1.90 +/- 0.25
Predicted Cladding Absorption @ 976 nm (dB/m)	7.0 +/- 1
Core numerical aperture (NA)	0.0450 +/- 0.0055
LP_{01} MFD @ 1060 nm (µm)	24.0 +/- 0.5
Effective Area Aeff @ 1060 nm ($µm^2$)	455 +/- 10
Birefringence @ 1060 nm	~ 1.4×10^{-4}

Specifications are subject to change without notice

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