DCF-YB-20/125E-PM

Polarization-maintaining ytterbium-doped fiber

This double clad fiber features high absorption and low photodarkening. It shows excellent beam quality which is required for various material proccesing applications. This fiber is also ideal for the design of a wide range of pulsed fiber lasers and amplifiers.

Features & Benefits

- High effective pump absorption – allows fiber length reduction and nonlinear effect mitigation
- Very low photodarkening at high power – ensures stable long-term operation
- High birefringence – minimizes stress
- Excellent beam quality – efficient fiber laser applications

Applications

- Ultrafast fiber lasers
- Pulsed fiber lasers & amplifiers
- Material processing
- Second Harmonic Generation
- Scientific

Related Products

- DCF-UN-20/125-08-PM
  Matched double-clad fiber

Specifications

Optical

Cladding Absorption @ 915 nm (dB/m)	4.15 ± 0.45
Cladding Absorption @ 975 nm – Nominal (dB/m)	16.6
Numerical Aperture – Core	0.075 ± 0.005
Numerical Aperture – Cladding	> 0.45
Birefringence	≥ 1.4E-04

Geometrical & Mechanical

Core Diameter (µm)	20 ± 1
Cladding Diameter (µm)	125 ± 2
Core/Cladding Concentricity Error (µm)	< 1.0
Cladding Geometry	Round
Coating Diameter (µm)	245 ± 15
Proof Test (kpsi)	≥ 100

Environmental

Operating Non-Condensing Humidity (%)	5 - 85
Operating Temperature (C°)	0 - 70
Storage Non-Condensing Humidity (%)	5 - 85
Storage Temperature (C°)	-40 - 85