DCF-YB-7/128-FA

Yb-doped fiber for pulsed lasers

This phosphosilicate fiber is ideal as a gain medium for lower power amplifiers or the pre-amplifier stage and is mainly used in a MOPA configuration of a pulsed fiber laser. On top of all the benefits found in a phosphosilicate fiber (high saturation energy, photodarkening-free performance and high absorption), this fiber shows easy singlemode operation and very low splice loss when matching with standard fibers such as HI 1060.

Features & Benefits

- Easy single-mode operation and low splice loss with passive matching fibers
- Photodarkening-free – ensures stable long-term operation
- Wide, flat absorption from 910 nm to 970 nm – reduces pump cooling requirements and allows 940-960 nm pumping

Applications

- Pulsed fiber lasers: gain media in preamplifiers or low power amplifiers
- Material processing: laser marking, laser engraving, micromachining and welding

Related Products

- DCF-UN-6/125-14
  Matched double-clad fiber

- HI 1060
  Industry-standard optical fiber

Specifications

Optical

Cladding Absorption @ 915 nm (dB/m)	0.9 ± 0.2
Cladding Absorption @ 974 nm (dB/m)	Typ. 5.4
Numerical Aperture - Cladding	Min 0.45
Numerical Aperture - Core	0.19 ± 0.02

Geometrical & Mechanical

Cladding diameter (µm)	128 ± 3
Cladding geometry	Oct.
Coating Diameter (µm)	260 ± 20
Core Diameter (µm)	7 ± 1
Core/Cladding Concentricity Error (µm)	≤ 1
Proof Test (kpsi)	<= 100

Environmental

Storage Temperature (°C)	-40 to +85