

DCF-YB-8/128P-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 (photodarkening-free and high absorption), this fiber shows high energy saturation, which is essential for applications such as laser marking and engraving.

Features & Benefits

- Strictly single-mode operation and low splice loss with passive matching fibers for excellent beam quality
- Photodarkening-free – ensures stable long-term operations
- 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 for MOPA configuration
- Material processing: laser marking, laser engraving, micromachining and welding
- Medical Applications

Related Products

- DCF-UN-8/125-10
Matched double-clad fiber
- SCF-UN-8/125-10
Matched single-clad fiber

Specifications

Optical

Cladding Absorption @ 915 nm (dB/m)	1.8 ± 0.3
Numerical Aperture - Cladding	Min 0.45
Numerical Aperture - Core	0.105 ± 0.02

Geometrical & Mechanical

Cladding diameter (µm)	128 ± 3
Cladding geometry	Oct.
Coating Diameter (µm)	260 ± 20
Core Diameter (µm)	8 ± 1
Core/Cladding Concentricity Error (µm)	≤ 1.5
Proof Test (kpsi)	≤ 100

Environmental

Storage Temperature (°C)	-40 to +85
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