



LIEKKI™ Yb1200-20/125 fibers are highly doped fibers ideally suited for compact high-average-power pulsed amplifier applications where large mode area and short fiber length are critical for suppression of nonlinear effects.

The fibers feature a high-efficiency 20 μ m diameter core with low NA providing excellent beam quality. The combination of a highly doped core, large core-to-cladding ratio and efficient octagonal cladding shape provides a very high cladding absorption of 6.8dB/m to 7.1dB/m enabling shorter than 2m application lengths.

LIEKKI™ Yb1200-20/125 fibers are available as double cladding (Yb1200-20/125DC) and double cladding polarization maintaining (Yb1200-20/125DC-PM) fibers.

Features

- Large, low NA core for high beam quality
- High birefringence (Yb1200-20/125-PM)
- Very high pump absorption
- Less than 2 m application length
- Low non-linear effects
- Low photodarkening
- Compatible with 125 μ m standard components and tools
- 6+1-to-1 combiner in development

Applications

- High-average-power pulsed fiber amplifiers
- Compact medium power CW lasers

Proven Performance

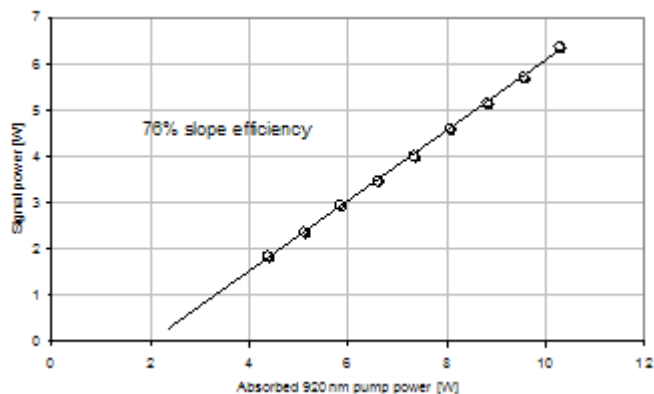
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Typical Device Performance

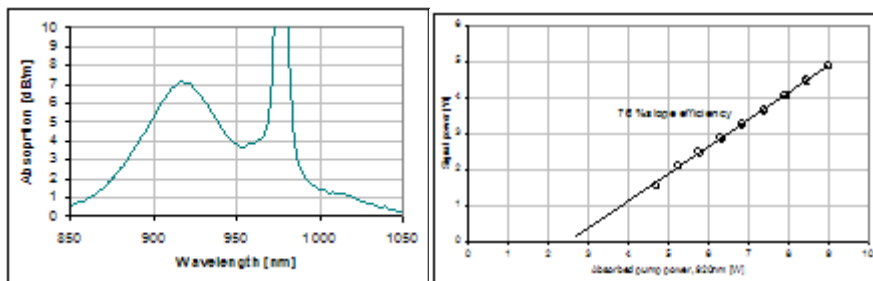
Fiber		LIEKKI™ Yb1200-20/125DC	LIEKKI™ Yb1200-20/125DC-PM
Optical			
Peak Cladding Absorption at 976 nm (nominal)	dB/m	29	30
Cladding Absorption at 920 nm	dB/m	6.8 ± 1.7	7.1 ± 1.7
Core Numerical Aperature		0.08 ± 0.01	0.08 ± 0.01
Birefringence			> 8.0E-05
Geometrical and Mechanical			
Core Diameter	µm	20 ± 2	20 ± 2
Core Concentricity Error	µm	< 1.5	< 1.5
Cladding Diameter (flat-to-flat)	µm	125 ± 2	125 ± 2
Cladding Geometry		Octagonal	Round
Coating Diameter	µm	245 ± 15	245 ± 15
Coating Material		Low Index Acrylate	Low Index Acrylate
Cladding Numerical Aperature		> 0.46	> 0.46
Proof Test	Kpsi	> 100	> 100

Typical Performance Data

Yb1200-20/125DC



Yb1200-20/125DC-PM



Proven Performance