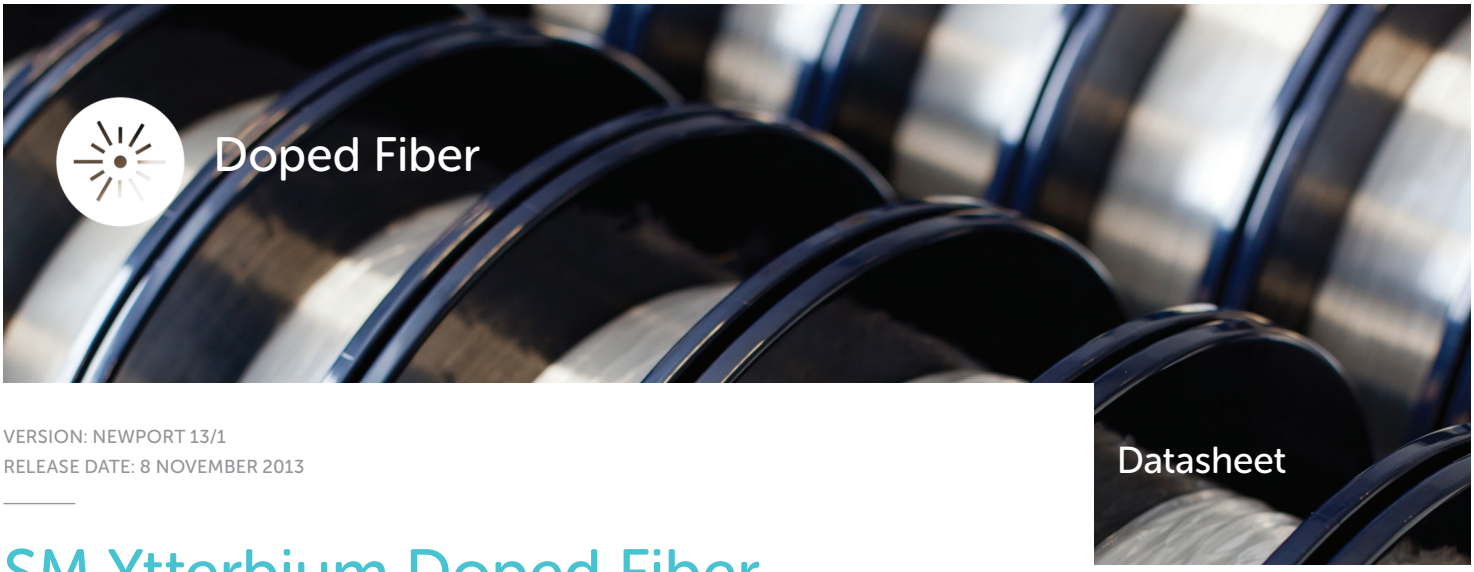


VERSION: NEWPORT 13/1
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# SM Ytterbium Doped Fiber

SM Ytterbium Doped Fiber (DF1100) is a Ytterbium doped Single-Mode (SM) fiber with a high doping level designed for low power fiber lasers and Amplified Spontaneous Emission (ASE) light sources. DF1100 is designed for core pumping around 915nm or 980nm. The high absorption rate allows short gain lengths to be used for femtosecond mode-locking ring lasers or for pre-amplifiers.

The emission spectrum of the fiber may be tuned by changing the length of the fiber, emission from 1030nm through to 1100nm can be achieved with DF1100.

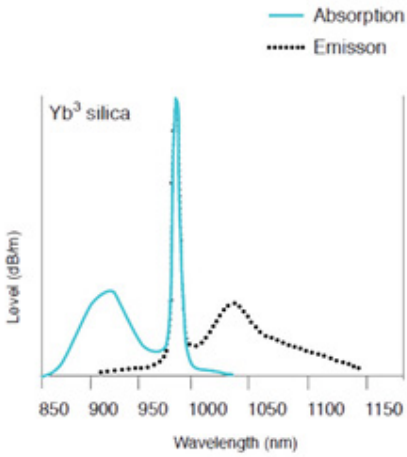
## The Ideal Rare-Earth Doped Single-Mode Fiber

**Short gain-length**
Ultra-high pump absorption
>1000dB/m at 977nm

**High conversion efficiency**
977nm pump / 1100nm output = 89%
quantum efficiency

**Length-tunable output wavelength**
1030nm – 1100nm

**Wide Pump Wavelength Range**
900nm – 1064nm




### Advantages:

- Extremely high pump absorption for short length amplifiers or lasers
- High pump efficiency

### Related Products:

- Dual-Clad Erbium/Ytterbium Doped Fiber (CP1500Y)
- Boron Doped Photosensitive Fiber (PS980)
- SM Fiber for Visible Through to Near IR (SM980(5.8/125)

### Typical applications:

- Fiber lasers
- Femtosecond lasers
- Ring lasers
- ASE light source

### Product Variant:

| | |
|---|---|
| • **DF1100** | Core pumped low power 1060nm laser fiber |

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# Doped Fiber

## Specifications

| | DF1100 |
|---|---|
| Operating Wavelength (nm) | 1030 - 1100 |
| Cut-Off Wavelength (nm) | 800 - 900 |
| Numerical Aperture | 0.14 - 0.16 |
| Mode Field Diameter (µm) | 5.1 – 6.3 @1085nm |
| Typical Absorption (dB/m) | 1700 (Nominal) @977nm |
| Attenuation (dB/km) | <50 @1200nm |
| Proof Test (%) | 1 (100 kpsi) |
| Cladding Diameter (µm) | 125 ± 1 |
| Core Cladding Concentricity (µm) | <0.5 |
| Coating Diameter (µm) | 245 ± 15 |
| Coating Type | Dual Acrylate |

Visit **fibercore.com/fiberpaedia** for our encyclopedia of industry terms/knowledge base.

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