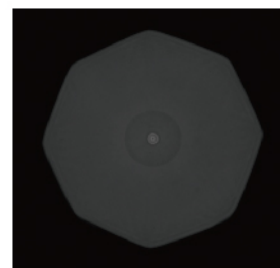


# Double-cladding Ytterbium-doped Fiber (YDF)

Everfoton double-cladding ytterbium-doped fiber (YDF) is one kind of active fiber applied for 1 micrometer fiber laser. Laser made by fiber cavity is extensively used in material processing, medical treatment and scientific research and other fields. Fiber laser is widely used for its advantages of lightness, efficiency and stability, which are competitively alternative to solid state laser.



## Characteristics

- Precise geometry
- High ytterbium-doped concentration
- High laser slope efficiency
- Low photo-darkening
- High reliability coating

## Applications

- CW / Pulse fiber laser
- Industry/ Medical
- High peak-power / High average-power fiber laser

## Specifications

Fiber Type	YDF_DC 10/125	YDF_DC 20/125	YDF_DC 14/250	YDF_DC 25/250	YDF_DC 30/250	YDF_DC 20/400	YDF_DC 30/400
Part No.	YD1110-A	YD1110-B	YD1110-H	YD1110-D	YD1110-E	YD1110-C	YD1110-F
<b>Geometrical Properties</b>							
Core Diameter (μm)	10.0 ± 1.0	20.0 ± 1.5	14.0 ± 1.0	25.0 ± 2.5	30.0 ± 3.0	20.0 ± 2.0	30.0 ± 3.0
Cladding Diameter (flat-to-flat) (μm)	125.0 ± 3.0	125.0 ± 3.0	250.0 ± 10.0	250.0 ± 10.0	250.0 ± 10.0	400.0 ± 15.0	400.0 ± 10.0
Coating Diameter (μm)	245.0 ± 15.0	245.0 ± 15.0	400.0 ± 20.0	400.0 ± 20.0	400.0 ± 20.0	550.0 ± 20.0	550.0 ± 20.0
Inner Cladding Shape	Octagon						
<b>Optical Properties</b>							
Operating Wavelength (Yb <sup>3+</sup> ) (nm)	1030 - 1115	1030 - 1115	1030 - 1115	1030 - 1115	1030 - 1115	1030 - 1115	1030 - 1115
Background Attenuation @1200nm (dB/km)	< 30	< 30	< 30	< 30	< 30	< 30	< 30
Cladding Pump Absorption @915nm (dB/m)	1.7 ± 0.4	4.0 ± 0.5	0.6 ± 0.1	2.0 ± 0.4	2.0 ± 0.4	0.40 ± 0.05	0.6 ± 0.1
Core NA	0.08 ± 0.01	0.08 ± 0.01	0.070 ± 0.005	0.065 ± 0.01	0.06 ± 0.01	0.06 ± 0.01	0.06 ± 0.01
Inner Cladding NA	≥ 0.46	≥ 0.46	≥ 0.46	≥ 0.46	≥ 0.46	≥ 0.46	≥ 0.46
Proof Test (kpsi)	100	100	100	100	100	100	100
Coating Material	Low Index Polymer						