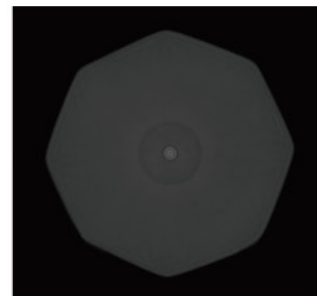


Double-cladding Ytterbium Doped Fibre (YDF)

YDF double-cladding ytterbium doped fibre (YDF) is one kind of active fibre applied for 1 micrometer fibre laser. Laser made by fibre cavity is extensively used in, material processing, medical treatment and scientific research and other fields. Fibre 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
- Low NA core, LMA designed
- High laser slope efficiency
- Low photo-darkening
- High reliability coating

Applications

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

Specifications

Fibre 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
Geometrical Properties							
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						
Optical Properties							
Operating Wavelength (Yb ³⁺)(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)	1.6 ± 0.3	4.0 ± 0.5	0.6 ± 0.1	2.0 ± 0.3	2.0 ± 0.3	0.40 ± 0.05	0.6 ± 0.1
Core NA	0.08 ± 0.01	0.08 ± 0.01	0.070 ± 0.005	0.065 ± 0.010	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						