

Thulium-doped Fiber

Everfoton Double-cladding Thulium-doped Fiber is an active gain fiber used for 2 μm fiber lasers and amplifiers. This series of fibers achieves high slope efficiency and low nonlinear effects when pumped at 793 nm by optimizing the profile and thulium ion doping concentration design. It can be widely used in the fields of medicine, material processing, and optoelectronic countermeasures.

Characteristics

- High Thulium-doped concentration
- High laser slope efficiency @793nm
- Low nonlinear effects

Applications

- 2 μm fiber lasers and amplifiers
- Surgical procedure
- Material processing
- Photoelectric countermeasure

Specifications

Fiber Type	TDF_DC 25/400 (I)	TDF_DC 25/400 (II)	TDF_DC 25/400(III)
Part No.	YD1114-A	-	-
Optical Properties			
Operating Wavelength (nm)	1600~2100		
Cladding Absorption@793nm (dB/m)	2.20±0.20	3.60±0.50	1.80±0.20
Core NA	0.11±0.005	0.085±0.010	0.095±0.005
Cladding NA	≥0.46	≥0.46	≥0.46
Core Attenuation @860nm (dB/km)	≤20.0	≤20.0	≤20.0
Geometrical Properties			
Core Diameter (μm)	25.0±2.0	25.0±2.0	25.0±2.0
Cladding Diameter (μm)	400.0±5.0	400.0±5.0	400.0±5.0
Coating Diameter (μm)	550.0±10.0	550.0±10.0	550.0±10.0
Core/Cladding Concentricity (μm)	≤2.0	≤2.0	≤2.0
Proof Test (kpsi)	≥100	≥100	≥100