LASERGLASS SHANGHAI INSTITUTE OF OPTICS AND FINE MECHANICS
CHINESE ACADEMY OF SCIENCES

14/250 双包层掺镱光纤和匹配的无源光纤

14/250 YDCF and matched passive fiber

产品描述 Product description

上海光机所双包层掺镱光纤采用优化的磷铝硅三元体系纤芯成分和液相、气相多步掺杂制备工艺制备，是应用于 1μm 单模千瓦级光纤激光器、光纤放大器的高功率光纤，可以被广泛的应用于材料加工、军事、医疗和科研等领域。

Ytterbium-doped double cladding fibers made in SIOM are fabricated by optimized core glass composition with phosphorus aluminum silica ternary system based on liquid/gas multi steps doping process. It is a single-mode fiber for 1 μm high power laser, which can be widely used in material processing, military, medical and scientific research fields.

产品特性 Product characteristics

- 优异的模式控制能力 Excellent mode control capability
- 几何尺寸的高精度控制 High precision geometric
- 高激光效率 High laser efficiency
- 低光子暗化效应 Low photo-darkening effect
- 可靠的高温、高湿环境稳定性 Reliable environmental stability

产品应用 Product application

- 军事、工业、科研等领域 Military, industrial, scientific research, etc.
- 单模连续光纤激光器 Single mode CW fiber laser

Fiber Specifications	YDF-14/250-DC	GDF-14/250-DC
Optical Properties		
Working wavelength（nm）	1040-1100	1040-1100
NA_{core}	0.075±0.005	0.075±0.005
$NA_{cladding}$	⩾ 0.46	⩾ 0.46
Cladding absorption（dB/m）	0.6±0.15 (915nm)	–
Core attenuation（dB/km）	⩽ 15.0(1200 nm) ⩽ 30.0 (1300 nm)	⩽ 15.0(1200 nm) ⩽ 30.0 (1300 nm)
Cladding light Loss（dB/km）	⩽ 15.0 (1095 nm)	⩽ 15.0 (1095 nm)
Geometric and Mechanical Properties		
Core diameter（μm）	14.0±1.0	14.0±1.0
Cladding diameter（μm）	250.0 ± 5.0（face-face）	247.0 ± 3.0
Coating diameter（μm）	400.0 ± 10.0	400.0 ± 10.0
Concentricity（μm）	⩽ 1.5	⩽ 1.5
Coating material	Acrylate	Acrylate
Tension screening	⩾ 100 kpsi	⩾ 100 kpsi