



特种光纤产品手册&服务

Special Optical Fiber Product Manual & Service

2024

COMMITTED TO BECOMING THE PIONNER
OF ACTIVE FIBER

COMPANY PROFILE

公司简介

聚芯光子科技（台州）有限责任公司创立于2023年，总部位于浙江省台州市椒江区，是一家专注于有源光纤的研发、生产和销售的高科技公司。公司产品覆盖高功率用1 μm 激光、通信用1.5 μm 激光、医疗与工业用2 μm 激光、特殊波长激光等领域，身处高端智能制造和移动互联时代，工业加工、信息传输和通信需求迅速增长。聚芯光子科技以领先的技术实力和专业团队，为客户提供卓越的产品和服务。

Founded in 2023 and headquartered in Jiaojiang District, Taizhou City, Zhejiang Province, Juxin Photonics Technology (Taizhou) Co.,LTD is a high-tech company focusing on the research, development, production and sales of optical fiber. The company's products cover 1 μm for high-power applications, 1.5 μm for laser communication, 2 μm for medical and industrial applications, and special wavelength. In the era of high-end intelligent manufacturing and mobile internet, the demands for industrial processing, information transmission and communication are growing rapidly. With the leading technical strength and professional team, Juxin Photonics provides customers with excellent products and services.

企业核心团队由激光光纤专家牵头成立，拥有多名博士，从事激光玻璃、激光光纤基础研究及其制备技术研发30余年。企业拥有国际领先的有源光纤生产技术和有源光纤产品研发能力，厂区面积4000 m^2 ，洁净面积达1500 m^2 。

聚芯光子光纤产品严格遵守20项指标要求，通过铝/磷/硅三元玻璃体系优化、气相-液相复合掺杂工艺、光纤波导结构优化、光纤涂覆工艺优化等技术手段，大大提升了我司特种光纤产品各项指标性能，产品具有增益均匀性好、抗光子暗化优、激光效率高、工作可靠性高等特点。

The core team of the company is led by laser fiber experts, with a number of PhDs, engaged in the basic research of laser glass, laser fiber and its preparation technology research and development for more than 30 years. The company has the world's leading active optical fiber production technology and active optical fiber product research and development capabilities, plant area of 4000 m^2 , clean room area of 1500 m^2 .

Juxin Photonics fiber products strictly comply with 20 index requirements, through the optimization of Al/P/Si ternary glass system, gas-liquid composite doping process, fiber waveguide structure optimization, fiber coating process optimization and other technological means, greatly enhance the performance of our special optical fiber products of the indexes, the product has a good uniformity of gain, excellent resistance to photodarkening, high laser efficiency, high reliability and other characteristics.



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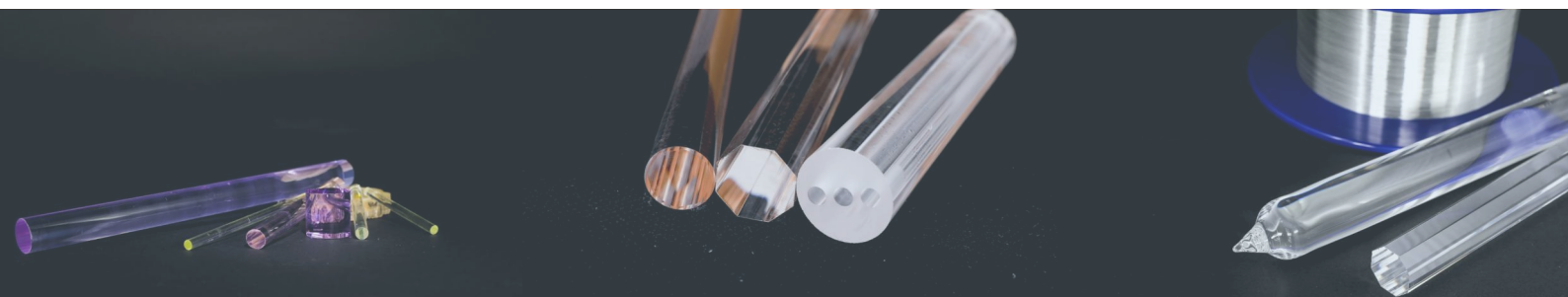
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Bi-doped Silicate Fiber

掺钕石英光纤

Nd-doped Silica Fiber



125 μm 包层直径双包层掺镱光纤

125 μm Cladding Diameter Double Cladding Yb-doped Fiber

产品描述 Product Description

125 μm 包层直径双包层掺镱光纤采用优化的光纤制备工艺和高性能玻璃组成，针对低功率光纤激光器设计，具有高吸收、低光子暗化及高效率等特点，可应用于低平均功率的单频或脉冲激光种子源等、材料加工、医疗和科研领域。

The 125 μm cladding diameter double cladding Yb-doped fiber is designed for low power fiber lasers, and features high absorption, low photon darkening, and high efficiency. It can be used in low average power single frequency or pulsed laser seed sources, material processing, medical, and scientific research fields.

产品特点 Features

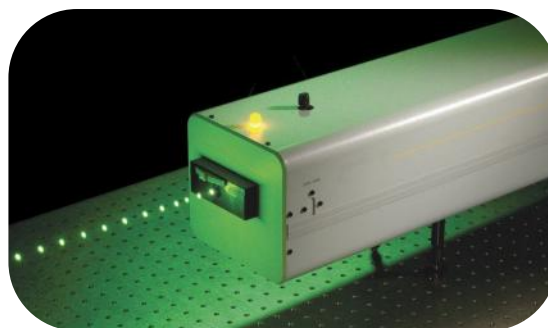
- 高吸收系数;
- 近单模传输、低弯曲损耗;
- 高精度的几何尺寸控制;
- 保偏和非保偏均可定制;
- High absorption coefficient,
- Near single-mode transmission, low bending loss,
- High-precision geometric dimension control,
- Both PM and non PM are customized,



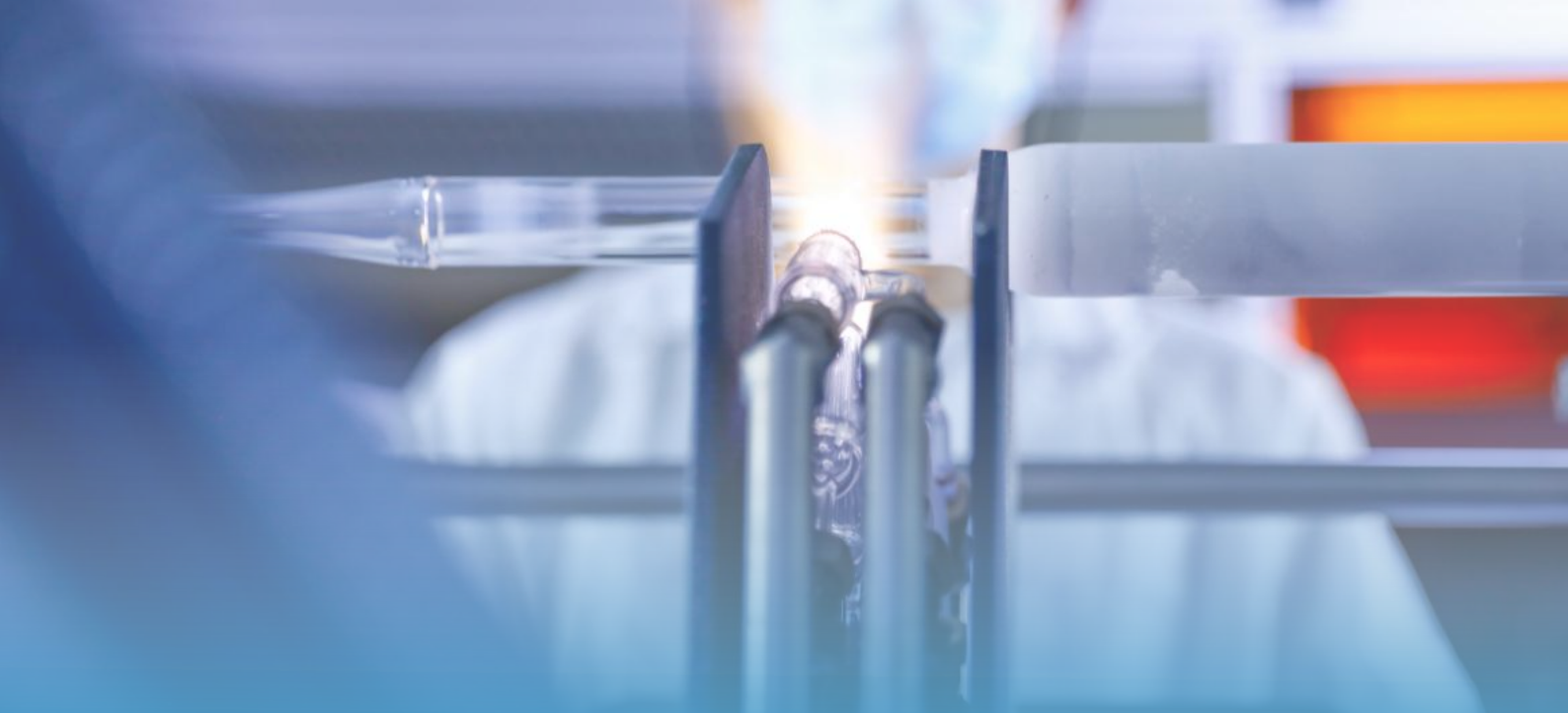
1 μm 皮秒光纤种子源
1 μm Picosecond Fiber Laser Seed Source

应用领域 Applications

- 材料加工、科学研究和医疗;
- 单频/脉冲光纤激光器;
- 激光雷达;
- Materials processing, scientific research and medical,
- Single frequency/pulse fiber laser,
- LIDAR,



脉冲光纤激光器
Pulsed Fiber Laser



产品指标 Specifications

光学性质 Optical specifications

型号 Part Number	YDF-6/125-LA	YDF-6/125-HA	YDF-10/125-DC	YDF-20/125-DC
工作波长 (nm) Operating wavelength	1015-1115	1015-1115	1015-1115	1030-1115
纤芯数值孔径 Core NA	0.14±0.02	0.14±0.02	0.075±0.005	0.060±0.005
包层数值孔径 Cladding NA	--	--	≥0.46	≥0.46
纤芯吸收系数 (dB/m@915 nm) Core absorption	80±20	200±80	--	--
包层吸收系数 (dB/m@915 nm) Cladding absorption	0.5±0.1	1.0±0.2	1.6±0.3	3.5±0.5
纤芯光损耗 (dB/km@1200 nm) Core attenuation	≤15.0	≤15.0	≤15.0	≤15.0
双折射系数 Birefringence	≥4.0×10 ⁻⁴	≥4.0×10 ⁻⁴	≥3.0×10 ⁻⁴	≥2.0×10 ⁻⁴
	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)

几何与力学性质 Geometric and mechanical specifications

纤芯直径 (μm) Core diameter	6.0±1.0	6.0±1.0	11.0±1.0	20.0±1.5
包层直径 (μm) Cladding diameter	125.0±1.5	125.0±1.5	125.0±1.5	125.0±1.5
涂覆层直径 (μm) Coating diameter	245.0±10.0	245.0±10.0	245.0±10.0	245.0±10.0
纤芯包层同心度 (μm) Concentricity	≤1.0	≤1.0	≤1.0	≤1.0
涂覆材料 Coating materials	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate
筛选强度 Proof test level	≥100 kpsi	≥100 kpsi	≥100 kpsi	≥100 kpsi

250 μm 包层直径双包层掺镱光纤

250 μm Cladding Diameter Double Cladding Yb-doped Fiber

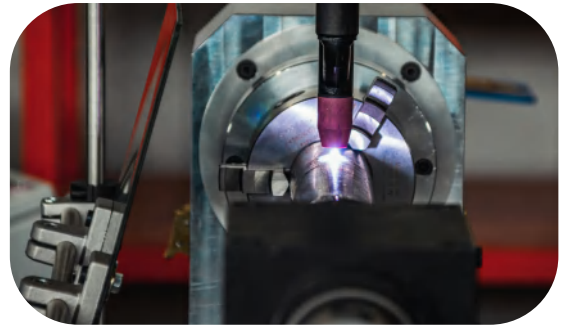
产品描述 Product Description

250 μm 包层直径的双包层掺镱光纤采用优化的光纤制备工艺和高性能玻璃组成，针对脉冲激光器设计，具有单模传输、低弯曲损耗、高吸收、低光子暗化及高效率等特点，可以被广泛地应用于材料加工、医疗和科研等领域。

The 250 μm cladding diameter double cladding Yb-doped fiber is composed of optimized fiber preparation process and high performance. Designed for pulsed lasers, the fiber features single mode transmission, low bending loss, high absorption, low photon darkening, and high efficiency, and it can be used in a wide range of applications in the fields of materials processing, medicine, and scientific research.

产品特点 Features

- 高精度的几何尺寸控制;
- 高的激光斜率效率;
- 低光子暗化效应;
- 保偏和非偏均可定制;
- Highly accurate geometric dimension control,
- High laser slope efficiency,
- low photon-darkening effect,
- Both PM and non PM are customized,



激光焊接
Laser Welding

应用领域 Applications

- 材料加工、医疗;
- 连续/脉冲光纤激光器;
- 科学研究;
- Material processing, medical,
- Continuous/Pulsed Fiber Laser ,
- Scientific research,



激光雕刻
Laser Engraving



产品指标 Specifications

光学性质 Optical specifications

型号 Part Number	YDF-14/250-DC	YDF-20/250-DC	YDF-25/250-DC	YDF-30/250-DC
工作波长 (nm) Operating wavelength	1015-1115	1030-1115	1030-1115	1030-1115
纤芯数值孔径 Core NA	0.070±0.005	0.060±0.005	0.060±0.005	0.060±0.005
包层数值孔径 Cladding NA	≥0.46	≥0.46	≥0.46	≥0.46
包层吸收 (dB/m@915 nm) Cladding absorption	0.7±0.1	1.0±0.2	1.6±0.3	2.1±0.5
包层光损耗 (dB/km@1095 nm) Cladding attenuation	≤15.0	≤15.0	≤15.0	≤15.0
纤芯光损耗 (dB/km@1200 nm) Core attenuation	≤15.0	≤15.0	≤15.0	≤15.0
双折射系数 Birefringence	≥2.0×10 ⁻⁴	≥2.0×10 ⁻⁴	≥2.0×10 ⁻⁴	≥1.5×10 ⁻⁴
	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)

几何与力学性质 Geometric and mechanical

纤芯直径 (μm) Core diameter	14.0±1.5	20.0±1.5	25.0±1.5	30.0±2.0
包层直径 (μm) Cladding diameter	250.0±3.0	250.0±3.0	250.0±3.0	250.0±3.0
涂覆层直径 (μm) Coating diameter	390.0±10.0	390.0±10.0	390.0±10.0	390.0±10.0
纤芯包层同心度 (μm) Concentricity	≤2.0	≤2.0	≤2.0	≤2.0
涂覆材料 Coating materials	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate
筛选强度 Proof test level	≥100 kpsi	≥100 kpsi	≥100 kpsi	≥100 kpsi

400 μm 包层直径双包层大模场掺镱光纤

400 μm Cladding Diameter Double Cladding Large Mode Field Yb-doped Fiber

产品描述 Product Description

400 μm 包层直径的双包层掺镱光纤采用优化的光纤制备工艺和高性能玻璃组成，该光纤针对3 kW量级及以上连续激光器设计，具有近单模传输、低弯曲损耗、低光子暗化及高效率等特点，可以被广泛地应用于材料加工、医疗和科研等领域。

The 400 μm cladding diameter double cladding Yb-doped fiber is composed of an optimized fiber preparation process and high-performance glass. Designed for continuous lasers in the 3 kW class and above, the fiber features near-single-mode transmission, low bending loss, low photon darkening, and high efficiency, and it can be used in a wide range of applications in the fields of materials processing, medicine, and scientific research.

产品特点 Features

- 高精度的几何尺寸控制；
- 近单模传输；
- 高的激光斜率效率、高模式不稳定阈值；
- 低光子暗化效应；
- 可靠的高温、高湿环境稳定性；
- 保偏和非保偏均可定制；
- Highly accurate geometric dimension control,
- Near single-mode transmission,
- High laser slope efficiency, High mode instability threshold,
- Low photon darkening effect,
- Reliable stability in high temperature and high humidity environments,
- Both PM and non PM are customized,



激光热熔焊接
Laser Heat Fusion Welding

应用领域 Applications

- 工业、科研等领域；
- 高功率连续光纤激光器和放大器；
- Industry, scientific research, etc.,
- High power continuous fiber lasers and amplifiers,



工业光纤激光切割机
Industrial Fiber Laser Cutting Machine



产品指标 Specifications

光学性质 Optical specifications

型号 Part Number	YDF-20/400-DC	YDF-25/400-LNA
工作波长 (nm) Operating wavelength	1030-1115	1030-1115
纤芯数值孔径 Core NA	0.060±0.005	0.055±0.005
包层数值孔径 Cladding NA	≥0.46	≥0.46
包层吸收 (dB/m@915 nm) Cladding absorption	0.4±0.05	0.5±0.1
包层光损耗 (dB/km@1095 nm) Cladding attenuation	≤15.0	≤15.0
纤芯光损耗 (dB/km@1200 nm) Core attenuation	≤15.0	≤15.0
双折射系数 Birefringence	≥2.0×10 ⁻⁴	≥2.0×10 ⁻⁴
	保偏/非保偏可选, 可提供耐辐照类型 (PM and non-PM are customizable, Irradiation Resistant types available)	保偏/非保偏可选 (PM and non-PM are customizable)

几何与力学性质 Geometric and mechanical

纤芯直径 (μm) Core diameter	20.0±1.5	25.5±1.5
包层直径 (μm) Cladding diameter	400.0±5.0	400.0±5.0
涂覆层直径 (μm) Coating diameter	540.0±10.0	540.0±10.0
纤芯包层同心度 (μm) Concentricity	≤2.0	≤2.0
涂覆材料 Coating materials	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate
筛选强度 Proof test level	≥100 kpsi	≥100 kpsi

三包层掺镱光纤

Triple-cladding Yb-doped Fiber

产品描述 Product Description

三包层掺镱光纤采用优化的光纤制备工艺和高性能玻璃组成，针对6 kW量级及以上连续光纤激光器设计，具有三包层光纤结构、低光子暗化及高效率等特点，可应用于材料加工、医疗和科研等领域。

Yb-doped triple cladding fiber is made in optimized fiber preparation process and high performance glass, designed for 6 kW and above continuous fiber lasers. It has the characteristics of three cladding fiber structure, low photodarkening and high efficiency, it can be widely used in materials processing, medical and scientific research fields.

产品特点 Features

- 高精度的几何尺寸控制；
- 高环境稳定性及长期使用可靠性；
- 高的激光斜率效率；
- 低光子暗化效应；
- 可定制服务；
- Highly accurate geometric dimension control,
- High environmental stability and long term reliability,
- High laser slope efficiency,
- Low photon darkening effect,
- Customizable services,



汽车工业焊接
Welding For The Automotive Industry

应用领域 Applications

- 工业、科研等领域；
- 高功率连续光纤激光器和放大器；
- Industry, research, etc.,
- High power continuous fiber lasers and amplifiers,



数控机床万瓦级激光切割
CNC Machine Tools 10,000 Watt Laser Cutting



产品指标 Specifications

光学性质 Optical specifications

型号 Part Number	YTF-34/460/530	YTF-34/460/530-LA	YTF-45/460/530
工作波长 (nm) Operating wavelength	1030-1115	1030-1115	1030-1115
纤芯数值孔径 Core NA	0.09±0.005	0.09±0.005	0.095±0.005
内包层数值孔径 Inner cladding NA	0.22±0.02	0.22±0.02	0.22±0.02
包层数值孔径 Cladding NA	≥0.46	≥0.46	≥0.46
内包层吸收 (dB/m@915 nm) Inner cladding absorption	1.1±0.2	0.6±0.2	1.1±0.2
纤芯光损耗 (dB/km@1200 nm) Core attenuation	≤15.0	≤15.0	≤15.0
内包层光损耗 (dB/km@1095 nm) Inner cladding attenuation	≤15.0	≤15.0	≤15.0

几何与力学性质 Geometric and mechanical

纤芯直径 (μm) Core diameter	34.0±1.5	34.0±1.5	45.0±2.0
内包层直径 (μm) Inner cladding diameter	460.0±10.0	460.0±10.0	460.0±10.0
包层直径 (μm) Cladding diameter	530.0±10.0	530.0±10.0	530.0±10.0
涂覆层直径 (μm) Coating diameter	640.0±10.0	640.0±10.0	640.0±10.0
纤芯包层同心度 (μm) Concentricity	≤2.0	≤2.0	≤2.0
涂覆材料 Coating materials	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate
筛选强度 Proof test level	≥100 kpsi	≥100 kpsi	≥100 kpsi

掺镱大模场双包层PCF光纤(模块)

Yb-doped Large Mode Area PCF (Module)

产品描述 Product Description

基于聚芯光子科技(台州)有限责任公司自主创新研发的大尺寸掺镱芯棒，采用毛细管堆垛工艺制备预制棒，经合理的气压控制技术和拉丝工艺制备得到。可以被广泛的应用于材料加工、医疗和科研等领域。

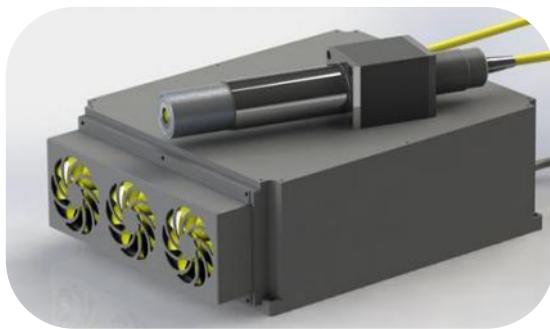
Based on the large diameter rare earth doped silica glass rod independently developed by Juxin Photonics Technology Co.,LTD, the optical fiber preform was further prepared by capillary stacking method and then drawn at high temperature by precise pressure control technology. The PCF can be widely used in material processing, medical and scientific research fields.

产品特点 Features

- 超大直径纤芯；
- 低非线性效应；
- 高损伤阈值；
- 良好的模式控制能力；
- 可靠的高温、高湿环境稳定性；
- 可定制全光纤化模块；
- Extra large diameter core,
- Low nonlinearity effect,
- High damage threshold,
- Good pattern control capability,
- Reliable stability in high temperature and high, humidity environments,
- Customizable fully fiber-optic modules,



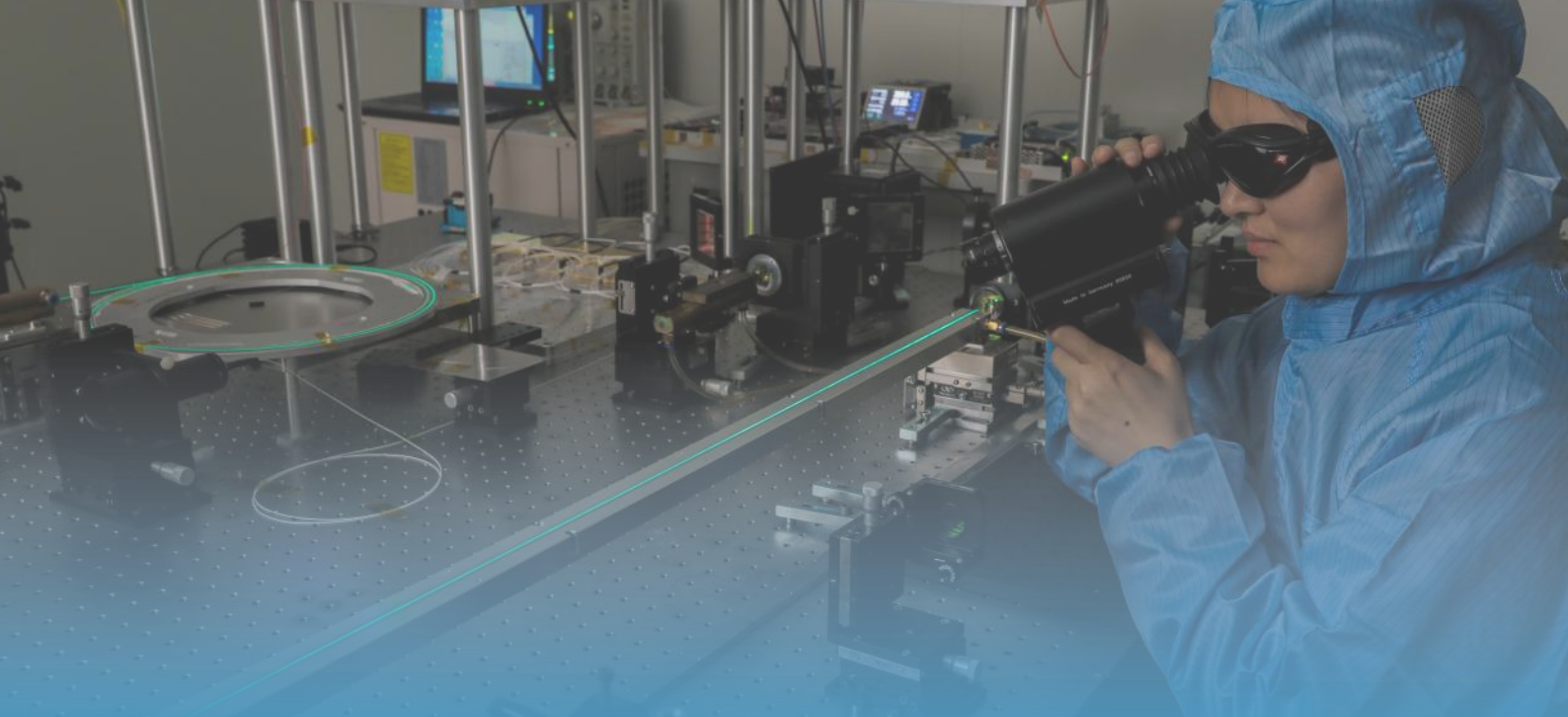
OLED屏幕加工
OLED Screen Processing



掺镱光纤激光器
Yb-doped Fiber Laser

应用领域 Applications

- 工业、科研等领域；
- 高功率连续光纤激光器和放大器；
- Industry, scientific research, etc.,
- High power continuous fiber lasers and amplifiers,



产品指标 Specifications

光学性质 Optical Parameters

型号 Part Number	PCF-Yb-40/200-PM
工作波长 (nm) Operating wavelength	1030-1100
纤芯数值孔径 Core NA	~0.03
包层数值孔径 Cladding NA	≥0.46
包层吸收 (dB/m@915 nm) Cladding absorption	3.5±1.0
纤芯光损耗 (dB/km@1200 nm) Core attenuation	≤80.0

几何与力学性质 Geometric and mechanical

纤芯直径 (μm) Core diameter	40.0±5.0
包层直径 (μm) Cladding diameter	200.0±10.0
涂覆层直径 (μm) Coating diameter	390.0±10.0
涂覆材料 Coating materials	低折射率涂料 Low index Acrylate

应用激光特性 Application laser characteristics

峰值功率 Peak power	≥100 kW
脉宽 Pulse width	ns-fs

通信用C-band掺铒光纤

C-band Er-doped Fiber For Communications

产品描述 Product Description

通信用C-band掺铒光纤，针对C-band单通道或多通道光纤放大器、ASE光源、城域网EDFA、CATV用EDFA、DWDM用EDFA设计。该光纤适用于980 nm和1480 nm泵浦，与通信光纤可实现一致性良好的低损耗熔接。

C-band Er-doped fiber designed for C-band single or multi channel fiber amplifiers communication, ASE light sources, metro EDFAs, CATV EDFAs, DWDM EDFAs. The fiber is suitable for 980 nm and 1480 nm pumping, and can be spliced to communication fibers with good uniformity and low loss.

产品特点 Features

- 高精度的几何尺寸控制；
- 一致性好，性能稳定；
- 实现与通信光纤低损耗熔接；
- 保偏和非保偏均可定制；
- 可提供耐辐照类型；
- Highly accurate geometric dimension control,
- Good consistency and stable performance,
- Low-loss fusion splicing with communication fiber,
- Both PM and non PM are customized,
- Irradiation resistance types available ,

应用领域 Applications

- 单通道、多通道EDFA；
- ASE光源；
- Single-channel, multi-channel EDFA,
- ASE light source,



ASE光源
ASE Light Source



光放大模块
Optical Amplifier Module



产品指标 Specifications

光学性质 Optical specifications

型号 Part Number	EDF-C band	EDF-C band-RR
工作波长 (nm) Operating wavelength	C-band	C-band
纤芯吸收 (dB/m@1530 nm) Core absorption	6.5±0.5	7.0±1.0
纤芯数值孔径 Core NA	0.22±0.01	0.22±0.02
模场直径@1550 nm (μm) Mode field diameter	6.2±0.2	6.2±0.7
截止波长 Cutoff wavelength	≤940 nm	≤920 nm
纤芯光损耗 (dB/km@1200 nm) Core attenuation	≤15.0	≤15.0
辐射诱导增益变化量 Radiation induced gain variation	--	≤0.03 dB/krad
保偏/非保偏可选，可提供耐辐照类型 (PM and non-PM are customizable, Irradiation Resistant types available)		保偏/非保偏可选，可提供耐辐照类型 (PM and non-PM are customizable, Irradiation Resistant types available)

几何与力学性质 Geometric and mechanical

包层直径 (μm) Cladding diameter	125.0±1.5	125.0±1.5
涂覆层直径 (μm) Coating diameter	245.0±10.0	245.0±10.0
纤芯包层同心度 (μm) Concentricity	≤0.5	≤0.5
筛选强度 Proof test level	≥100 kpsi	≥100 kpsi

铒镱共掺双包层光纤

Er/Yb Co-doped Double Cladding Fiber

产品描述 Product Description

双包层铒镱光纤采用优化的光纤制备工艺和高性能玻璃组成，针对1.5 μm波段高功率电信/CATV光纤放大器、激光测距、激光雷达、人眼安全激光设计，具有较高吸收系数、高光转换效率、低熔接损耗、高光束质量等特点，可应用于材料加工、医疗和科研等领域。

Er/Yb co doped fiber is made in optimized fiber preparation process and high performance glass, designed for 1.5 μm band high power telecom/CATV fiber amplifier, laser ranging, LiDAR, eye safety laser, it has the characteristics of high absorption coefficient, high light conversion efficiency, low splice loss and high beam quality, it can be widely used for materials processing, medical and scientific research fields.

产品特点 Features

- 高精度的几何尺寸控制;
- 高的光效率;
- 高光束质量;
- 高环境稳定性及长期使用可靠性;
- 保偏和非保偏均可定制;
- Highly accurate geometry control,
- High optical efficiency,
- High beam quality,
- High environmental stability and long-term reliability,
- Both PM and non PM are customized,

应用领域 Applications

- 工业、科研等领域;
- 连续/脉冲光纤激光器和放大器;
- Industrial, scientific research and other fields,
- Continuous/pulsed fiber lasers and amplifiers,



卫星通信
Satellite Communications



激光雷达
Laser Radar



产品指标 Specifications

光学性质 Optical specifications

型号 Part Number	EYDF-10/125-DC	EYDF-12/125-DC	EYDF-25/300-DC
工作波长 (nm) Operating wavelength	1530-1625	1530-1625	1530-1625
纤芯数值孔径 Core NA	0.11±0.01	0.22±0.02	0.09±0.01
包层数值孔径 Cladding NA	≥0.46	≥0.46	≥0.46
纤芯吸收 (dB/m@1535 nm) Core absorption	50.0±15.0	50.0±15.0	60.0±15.0
包层吸收 (dB/m@915 nm) Cladding absorption	2.5±0.6	2.7±0.6	2.7±0.6
包层光损耗 (dB/km@1095 nm) Cladding attenuation	≤30.0	≤30.0	≤30.0
双折射系数 Birefringence	≥1.0×10 ⁻⁴	≥1.0×10 ⁻⁴	≥1.0×10 ⁻⁴
辐射诱导增益变化量 Radiation induced gain variation	--	≤0.03 dB/krad	--
	保偏/非保偏可选, 可提供耐辐照类型 (PM and non-PM are customizable)	保偏/非保偏可选, 可提供耐辐照类型 (PM and non-PM are customizable)	保偏/非保偏可选, 可提供耐辐照类型 (PM and non-PM are customizable)

几何与力学性质 Geometric and mechanical

纤芯直径 (μm) Core diameter	10.0±1.5	12.0±1.5	25.0±2.0
包层直径 (μm) Cladding diameter	125.0±2.0	125.0±2.0	300.0±5.0
涂覆层直径 (μm) Coating diameter	245.0±10.0	245.0±10.0	480.0±10.0
纤芯包层同心度 (μm) Concentricity	≤1.5	≤1.5	≤1.5
涂覆材料 Coating materials	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate
筛选强度 Proof test level	≥100 kpsi	≥100 kpsi	≥100 kpsi

双包层掺铥光纤

Double cladding thulium-doped fiber

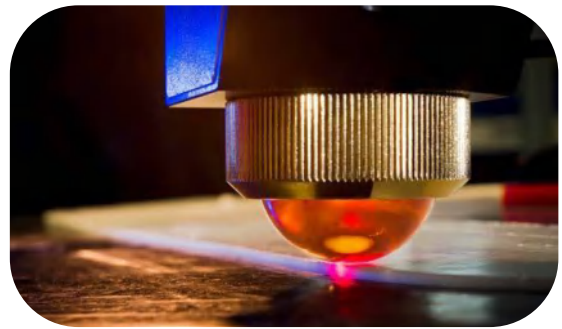
产品描述 Product Description

双包层掺铥光纤采用优化的光纤制备工艺和高性能玻璃组成，该光纤是应用于2 μm波段光纤激光器、光纤放大器的有源光纤，具有较高的吸收系数、793 nm泵浦高光转换效率等特点。可以被广泛的应用于塑料加工、医疗和科研等领域。

Double cladding Tm-doped fiber is composed of optimized fiber preparation process and high performance glass, which applied to 2 μm band fiber laser, fiber amplifier with high absorption coefficient, 793 nm pumping high optical conversion efficiency. It can be widely used in the fields of plastic processing, medical treatment and scientific research.

产品特点 Features

- 高精度的几何尺寸控制;
- 高的793 nm泵浦激光斜率效率;
- 可靠的高温、高湿环境稳定性;
- Highly accurate geometry control.
- High 793 nm pump laser slope efficiency.
- Reliable stability in high temperature and high humidity environments.



塑料加工
Plastics Processing

应用领域 Applications

- 塑料加工、医学、科研等领域;
- 连续/脉冲光纤激光器和放大器;
- Plastics processing, medical, scientific research.
- Continuous/pulsed fiber lasers and amplifiers.



医用激光碎石
Medical Laser Lithotripsy



产品指标 Specifications

光学性质 Optical Parameters

型号 Part Number	TDF-10/130-DC	TDF-25/400-DC
工作波长 (nm) Operating wavelength	1900-2100	1900-2100
纤芯数值孔径 Core NA	0.15±0.01	0.09±0.01
包层数值孔径 Cladding NA	≥0.46	≥0.46
包层吸收 (dB/m@793 nm) Cladding absorption	3.0±0.5	2.0±0.5
纤芯光损耗 (dB/km@860 nm) Core attenuation	≤15.0	≤15.0
	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)

几何与力学性质 Geometric and mechanical

纤芯直径 (μm) Core diameter	10.0±1.0	25.0±1.5
包层直径 (μm) Cladding diameter	130.0±2.0	400.0±5.0
涂覆层直径 (μm) Coating diameter	245.0±10.0	540.0±10.0
纤芯包层同心度 (μm) Concentricity	≤ 1.0	≤2.0
涂覆材料 Coating materials	低折射率涂料 Low index Acrylate	低折射率涂料 Low index Acrylate
筛选强度 Proof test level	≥ 100 kpsi	≥ 100 kpsi

掺铋硅基光纤

Bi-doped Silicate-based Optical Fiber

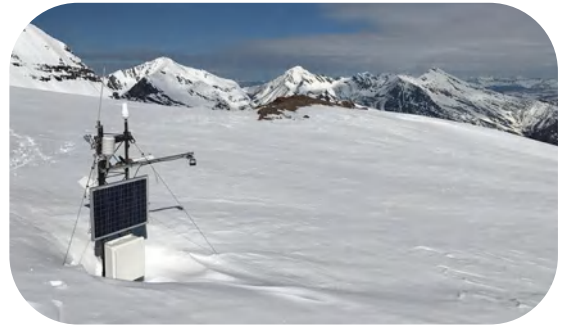
产品描述 Product Description

聚芯光子(台州)有限公司基于独特的铋元素配位原子调控技术和价态还原技术，制备出高增益系数掺铋硅基光纤。该光纤可用作O、E、S、L+和U等波段光纤放大器或光纤激光器的增益介质，广泛应用于光通信、自然环境监测和科研等领域。

Based on the unique bismuth element coordination atom modulation technology and valence reduction technology, Juxin Photonics Technology (Taizhou)Co.,LTD. has prepared bismuth doped silicate based optical fiber with high gain factor. The fiber can be used as a gain medium for fiber amplifiers or fiber lasers in O, E, S, L+ and U bands, and is widely used in optical communications, natural environment monitoring and scientific research.

产品特点 Features

- 高吸收系数;
- 高精度的几何尺寸控制;
- 低羟基含量;
- 高增益系数;
- High absorption coefficient,
- Highly accurate geometry control,
- Low hydroxyl content,
- High gain coefficient,



气体监测
Gas Monitoring

应用领域 Applications

- 光通信、自然环境监测及科研等领域;
- 光纤放大器和激光器;
- 可调谐光源;
- Optical communications, natural environment monitoring and scientific research,
- Fiber amplifiers and lasers,
- Tunable light sources,



光通信
Optical Communication



产品指标 Specifications

光学性质 Optical specifications

型号 Part Number	BPF-6/125	BGF-8/125	HiBGF-6/125
工作波长 (nm) Operating wavelength	O+E band	E+S band	L+~U band
增益系数 (dB/m) Gain coefficient	0.12@1325nm (pumping power=785 mW)	1.07@1430nm (pumping power=524 mW)	0.48@1750nm (pumping power=936 mW)
3dB放大范围 (μm) 3dB range	1.30-1.35	1.41-1.45	1.71-1.77
纤芯泵浦吸收 (dB/m) Core pumping absorption	0.55±0.05(1240 nm)	1.65±0.05(1320 nm)	1.65±0.05(1550 nm)
纤芯光损耗 (dB/km) Core attenuation	≤20 (1550nm)	≤200 (1150 nm)	≤450 (1200 nm)

几何与力学性质 Geometric and mechanical

纤芯直径 (μm) Core diameter	7.0±1.0	8.0±1.0	6.0±1.0
包层直径 (μm) Cladding diameter	125.0±2.0	125.0±2.0	125.0±2.0
涂覆层直径 (μm) Coating diameter	245.0±10.0	245.0±10.0	245.0±10.0
纤芯包层同心度 (μm) Concentricity	≤1.0	≤1.0	≤1.0
筛选强度 Proof test level	≥100 kpsi	≥100 kpsi	≥100 kpsi

掺钕石英光纤

Nd Doped Silica Fiber

产品描述 Product Description

聚芯光子(台州)有限公司基于自主提出的改进溶胶凝胶技术调控Nd³⁺离子配位环境, 大幅提高Nd³⁺ ~900 nm荧光强度比, 研制的大模场、高增益单模掺钕石英光纤可用于~900 nm百瓦量级高功率, 窄线宽单频及超快光纤激光器。

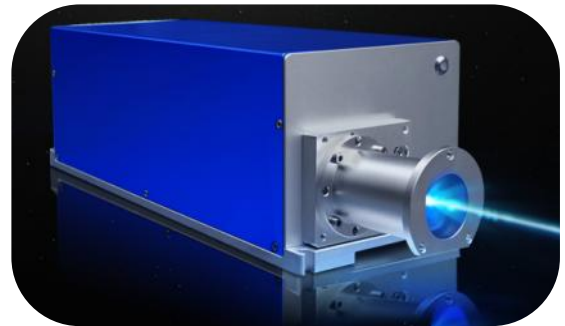
Based on the self-proposed modified sol-gel technique, the Nd³⁺ coordination environment was regulated, and the fluorescence intensity ratio of Nd³⁺ ~900 nm was greatly improved. The Nd³⁺ silica fiber with large mode field and high gain single mode can be used for high power, narrow linewidth single frequency and ultra-fast fiber laser of ~900 nm.

产品特点 Features

- 808 nm高泵浦吸收;
- 900 nm高功率激光输出;
- 单频激光输出;
- 高重频超快激光输出;
- 保偏和非保偏均可定制;
- 光纤尺寸可定制;
- High 808 nm pump absorption,
- High 900 nm power laser output,
- Single frequency laser output,
- High repetition frequency ultra-fast laser output,
- Both PM and non PM are customized,
- Fiber size can be customized,

应用领域 Applications

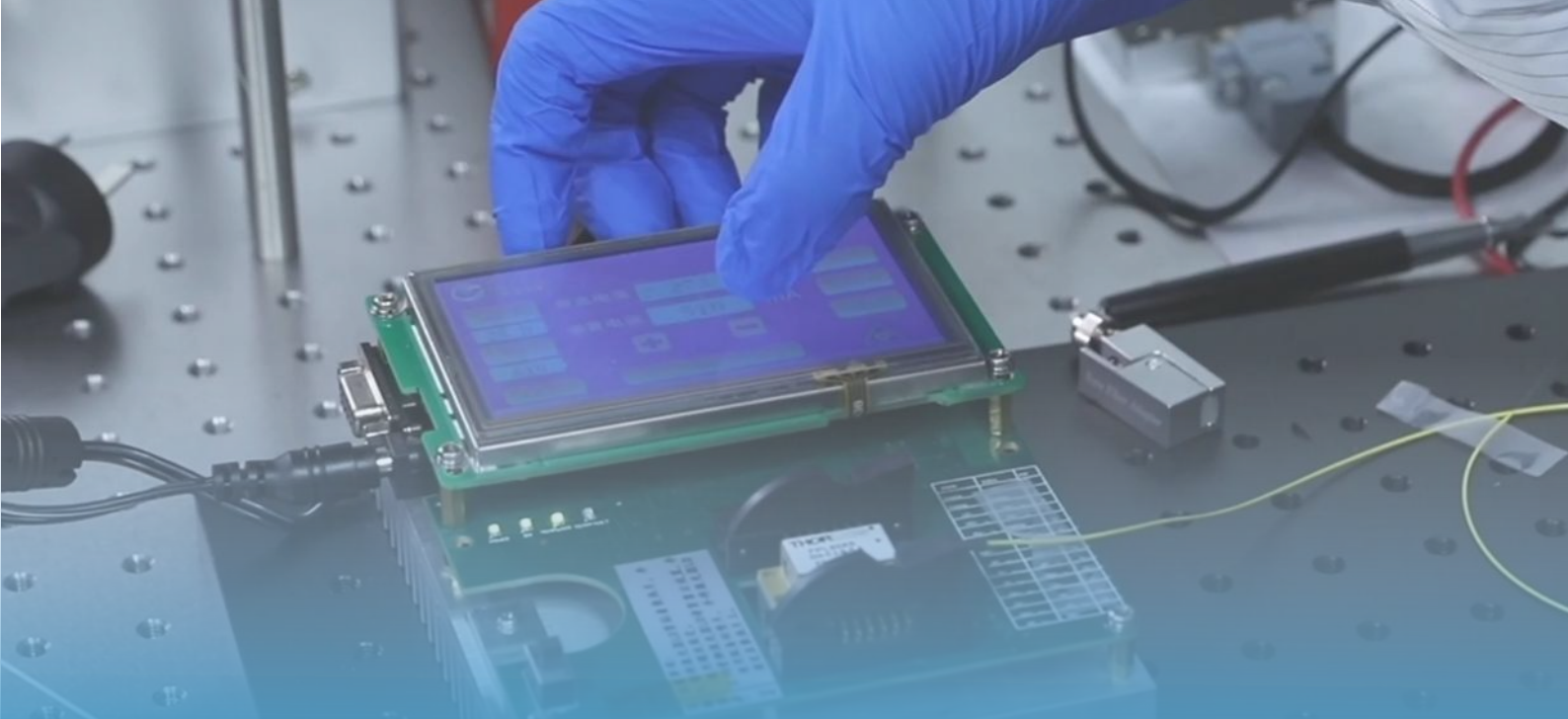
- 生物医学、工业、科研等;
- 脉冲光纤激光器和放大器;
- 倍频产生深蓝激光;
- Biomedical, industrial, research, etc.,
- Pulsed fiber laser and amplifier,
- Frequency doubling for deep blue laser generation,



915 nm高光束质量泵浦源
915 nm High Beam Quality Pump Source



水下光通信
Underwater Optical Communication



产品指标 Specifications

光学性质 Optical specifications

型号 Part Number	NDF-4/125	NDF-20/125	NDF-30/125
工作波长 (nm) Operating wavelength	890-935	890-935	890-935
纤芯数值孔径 Core NA	0.14±0.01	0.05-0.1 (可定制/Support customization)	0.05-0.1 (可定制/Support customization)
纤芯吸收 (dB/m@808 nm) Core absorption	410-450 (可定制/Support customization)	--	--
包层吸收 (dB/m@808 nm) Cladding absorption	--	1.0-3.5 (可定制/Support customization)	1.0-3.5 (可定制/Support customization)
纤芯光损耗 (dB/km@1200 nm) Core attenuation	≤100	≤100	≤100
输出功率 Output power	≥10 mW (single frequency and ultrafast)	1-150 W (M ² < 1.5)	≥100 W (M ² < 3)
	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)	保偏/非保偏可选 (PM and non-PM are customizable)

几何与力学性质 Geometric and mechanical

纤芯直径 (μm) Core diameter	4.0±1.0	20.0±1.5	30.0±2.0
包层直径 (μm) Cladding diameter	125.0±2.0	125.0±2.0	125.0±5.0
涂覆层直径 (μm) Coating diameter	245.0±10.0	245.0±10.0	245.0±10.0
涂覆材料 Coating materials	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate	低折射率涂料 Low index acrylate
筛选强度 Proof test level	≥100 kpsi	≥100 kpsi	≥100 kpsi

产品定制化服务

■ 高品质有源光纤全套解决方案

聚芯光子拥有先进生产工艺和专业研发团队，可以快速响应您的应用需求，我们致力于为您提供高品质有源光纤全套解决方案，从芯包比、吸收系数、数值孔径到特殊掺杂，从有源光纤到精准匹配的无源纤，一切为您量身打造。让定制化服务成就您的创新之路！

With advanced production process and professional R&D team, Juxin Photonics can quickly respond to your application needs. We are committed to providing you with a full set of solutions for high quality active optical fiber, from core-to-clad ratio, absorption coefficient, numerical aperture to special doping, and from active optical fiber to accurately matched passive fibers, everything is tailor-made for you. Let customized services achieve your path of innovation!

30余年

特种玻璃研究基础
Basic Research On Specialty Glass

10余年

有源光纤研发经验
Active Fiber R&D Experience

50余种

商业化有源光纤
Commercial Active Fiber

芯包比
Core-to-clad ratio

吸收系数
Absorption coefficient

特种光纤定制服务

Customized services for special optical fibers

数值孔径
Numerical aperture

特殊掺杂
Special doping

核心优势



以人为本·创新驱动·质量至上
PEOPLE-ORIENTED INNOVATION-DRIVEN QUALITY FIRST