



UNI Optics (Fujian) Co., Ltd

Building 3, No. 66, Anxia, Gaoqi Industrial Zone, Nanyu
High-tech Development Zone, Fuzhou 350109 China
Tel: +86-591-86395085
Email: sales@uni-optics.com
Website: www.uni-optics.com

福建优恩立光电科技有限公司
福州市高新开发区南屿高岐工业区安厦66号3栋
电话: +86-591-86395085



UO_{ptics} Manual

光学元件产品手册



福建优恩立光电科技有限公司
UNI Optics (Fujian) Co., Ltd

CATALOG

目录

About us 关于我们	03
Precision Optical components 精密光学元件	04-05
Spherical Lens and Prisms 球面透镜与棱镜	06
Flats and Infrared Optics 平面光学元件与红外光学元件	07
Cylindrical Lens 柱面镜	08
Laser Optics 激光光学元件	09
Customized Lens Systems 镜头定制	10-11
Coating 镀膜	12
Typical Coating Spectrum 典型镀膜光谱	13
Metrology 质量保证	14
Manufacturing 生产概要	15



ABOUT US

UNI Optics specialize on high precision optics and lens system in China for many years. We provide our customers with one-stop optical solutions. Our highly skilled team with more than 15 years experience in designing, manufacturing, assembling and testing. Our integrated assemblies, lenses, prisms, mirrors, and filters are widely used in machine vision, factory automation, lasers, medical, life science, biometric, military applications.

From prototype to volume production, UNI Optics is focused on providing excellence in customer service. Whatever your requirements, we will work directly with you to ensure the project succeed.

Typical products and service:

Optical design / Coating design / Mechanical design / Lens assembly system.
High resolution, low distortion and wide angle S-mount lens.
Machine vision filters(bandpass/ long pass/ UV-IR cut/ polarizing etc.)

优恩立专注于精密光学元件及其镜头研发与制造，拥有经验丰富的专业技术团队，能快速提供咨询、设计、制造、装配和测试等一站式光学解决方案，为您量身定制各种光学元件与镜头系统，助力您的新产品和项目在市场上更具差异化。我们的定制镜头，透镜，棱镜，反射镜和滤光片广泛应用于机器视觉，工厂自动化，激光，医疗，生命科学，生物识别，军事应用等高科技领域。

从打样到批量生产，我们始终专注客户需求，提供全面直接有效客户定制服务，以保证项目成功。

光学设计 / 镀膜设计 / 机械件设计 / 镜头系统组装;高分辨率、低失真、广角S接口镜头;工业镜头/线扫镜头、短波红外镜头等
机器视觉滤光片(带通滤光片/长波通滤光片/紫外红外截止滤光片/偏振滤光片等)



一系列高精度光学元器件

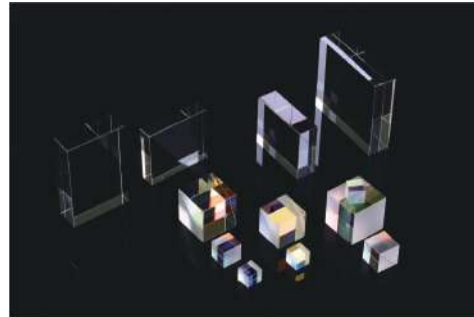
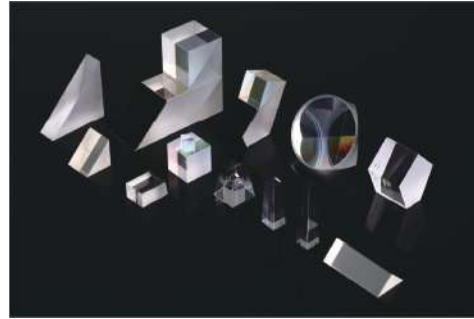
透镜/棱镜/窗片/镀膜

UNI OPTICS has rich experience in customized advanced optics manufacturing, using various glass material (CDGM, Schott, Ohara, Corning, colored glass etc.), quartz, germanium, silicon, ZnS, ZnSe, CaF₂, sapphire and so on.

优恩立拥有丰富的定制先进光学制造经验,使用各种玻璃材料(成都光明、肖特、小原、康宁、有色玻璃等)、石英、锗、硅、硫化锌、硒化锌、氟化钙、蓝宝石等。

Spherical Lens and Prisms

球面透镜与棱镜



Specification:

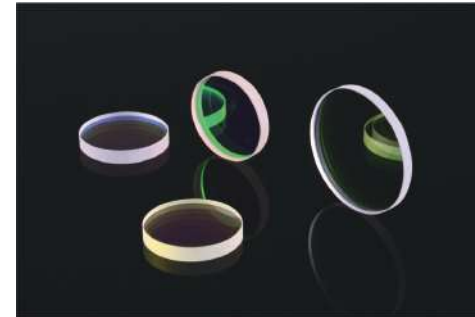
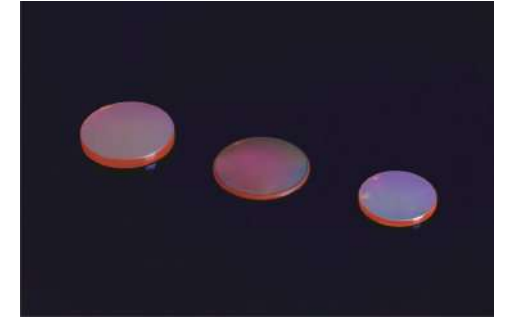
- Dimension: 0.8mm to 200mm or bigger
- Surface Quality: 40-20 or better
- Flatness: $\lambda/4$ or better
- Centration: 3 arc mins or better
- Custom design solution

Specification:

- Dimension: up to 450mm
- Angle Tolerance: ± 1 second
- Flatness: $\lambda/10$ or better
- Surface Quality: 40-20 or better
- Glue or Optical contact

Flats and Infrared Optics

平面光学元件与红外光学元件



Specification:

- Types: Windows, Mirrors, Filters and Waveplates.
- Diameter up to 450mm
- Surface Quality: 20-10 or better
- Flatness: $\lambda/10$ or better
- Parallelism: 10 arc second

Specification:

- Types: Flats, Mirrors, Windows, and Lenses
- Material: ZnSe, ZnS, Ge, Si, CaF_2
- Max dimension(mm): 200mm
- Form error: $\lambda/10$

Cylindrical Lens

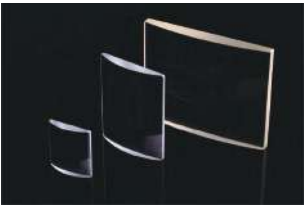
柱面透镜

Why Cylinders

为什么选择柱面透镜？

A cylindrical lens differs from other lenses in the fact that it focuses light into a line and not a point. This is due to the lens having a curved face, or faces, that resemble a section of a cylinder. The lens has a radius of curvature in one axis but is flat in the other, which results in image magnification in only one axis. Cylindrical lenses can be used in medical, defence, and other market spaces. They have the benefit of correcting for astigmatism or adjusting the height of the image.

柱面透镜与其他透镜的不同之处在于它把光聚焦成一条直线而不是一个点,这归功于柱面透镜有类似于圆柱体的一个或多个曲面。柱面透镜的一条轴有曲率半径,另一条轴是平的,这使图像可以只在一条轴上放大。因为柱面透镜具备校正散光和调整图像高度的优点,它们被广泛运用在医疗、国防等领域。



Cylindrical Optics

柱面光学元件

Types of cylinders: Singlets, doublets, triplets, anamorphic, plano-concave, plano-convex, sphero-cylindrical etc.
Sizes: 3mm-200mm or bigger
Material Types: all the optical glass, fused silica and quartz
Volumes: Prototype to production quantities

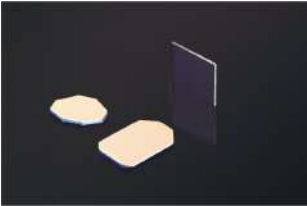
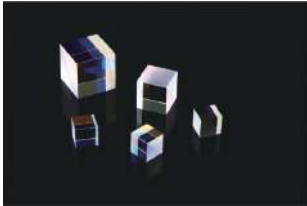
柱面类型:单片、双胶合、三胶合、异形、平凹、平凸以及球柱面状等等。
加工尺寸:3mm-200mm或更大
加工材料:光学玻璃、融石英、石英
数量:打样,量产均可

Laser Optics

激光光学元件

Laser Optics are used in a wide range of laser instrumentation or laser applications, including beam steering or material processing. Laser Optics use specific substrates, coatings, or a combination of the two to provide superior performance at specific laser wavelengths or over a range of wavelengths.

激光光学元件广泛用于激光仪器或激光应用,包括光束控制或材料加工。 激光光学元件使用特定的基材、涂层或两者的组合,以在特定激光波长或一系列波长范围内提供卓越的性能。



Polarizing Beam Splitter(PBS)

偏光分束器

Key Feature:
·Optically Contacted Design
Increases Damage Threshold
·Greater than 96% Transmission of P-Polarized Light
·High Extinction Ratio of Greater than 1000:1

·深化光胶增加损伤阈值并消除了荧光
·大于 96% 的 P 偏振光透射率
·大于 1000:1 的高消光比

Laser Rod Lenses

激光棒透镜

Key Feature:
·Focuses Collimated Light into a Line
·Available in Diameters as Small as 1mm
·BK7 and Fused Silica Substrate Options

·将平行光聚焦成一条线
·可提供小至 1mm 的直径
·N-BK7 和熔融石英基板选项

Laser Windows

激光窗口片

Key Feature:
·10-5 Surface Quality
·High Transmission
·High Damage Thresholds
·Excellent Film Density
·Excellent Environment Stability

·10-5 表面光洁度
·高透过率
·高损伤阈值
·出色的薄膜密度

Laser Mirrors

激光反射镜

Key Feature:
·High Reflection
·High Damage Thresholds
·Excellent Film Density
·Excellent Environment Stability

·高反射率
·高损伤阈值
·出色的薄膜密度
·出色的环境稳定性



一站式的解决方案

光学设计/机械设计/组装测试

UNI OPTICS is specialized in the sophisticated optical assembly. Our experienced engineering team is well familiar with a broad range of imaging lens assemblies and market applications. Our typical products and services include OEM&ODM objective lens, standard FA lens, small objective lens and endoscope adapters.

优恩立专注于精密光学组件。我们经验丰富的工程团队非常熟悉各种成像镜头组件和市场应用。我们的典型产品和服务包括定制镜头、标准工业镜头、小型物镜和内窥镜适配器。

Coating 镀膜



Optical Coatings 光学镀膜

Our ability to custom coat your optics in-house provides you with an all-inclusive optics manufacturing partner. This means we can personally ensure quality throughout and meet quicker turnaround times. UNI OPTICS'engineers can use a stock coating or create a custom coating to meet your specifications. From AR and HR to beamsplitters and cut-off filters, high performance coatings deliver exceptional value.

作为一站式光学元件制造商,我们可以为您的产品提供自制镀膜定制服务,全程把控质量,并缩短周转时间。

我们的工程师团队可以使用现有镀膜技术或为您的产品量身定制镀膜方案, 确保满足您的要求。从增透膜、高反膜、分光膜、滤光膜,到高性能膜层都将带给您超值体验。

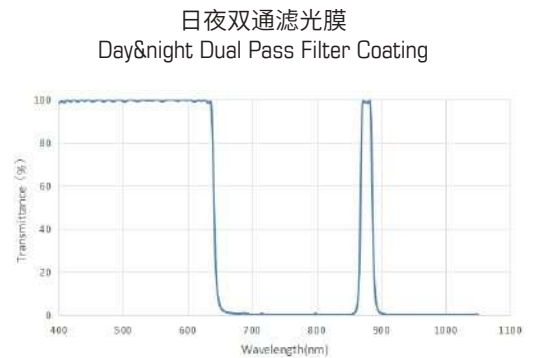
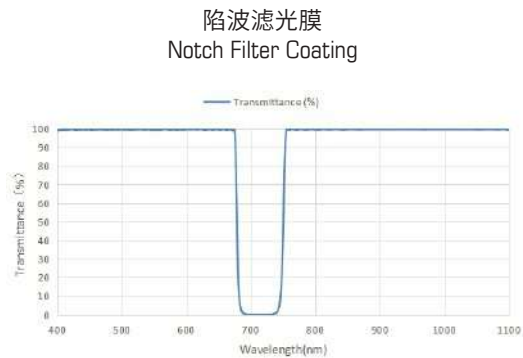
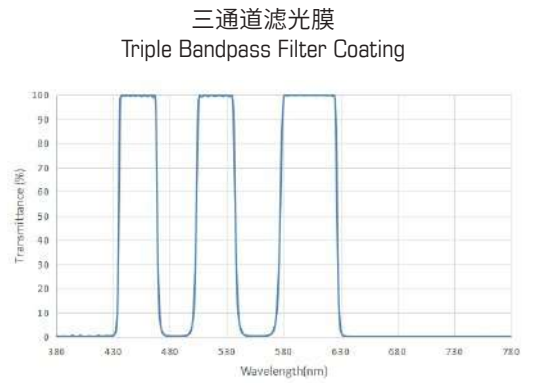
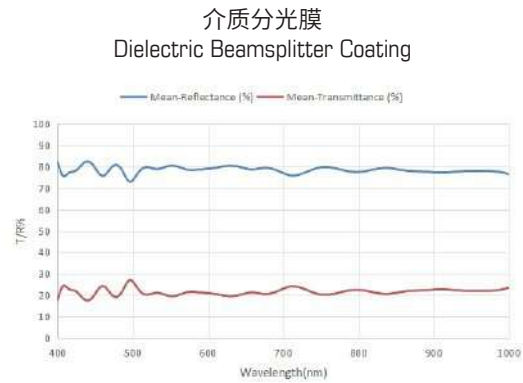
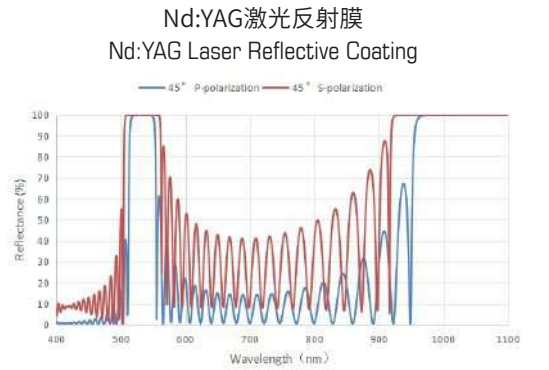
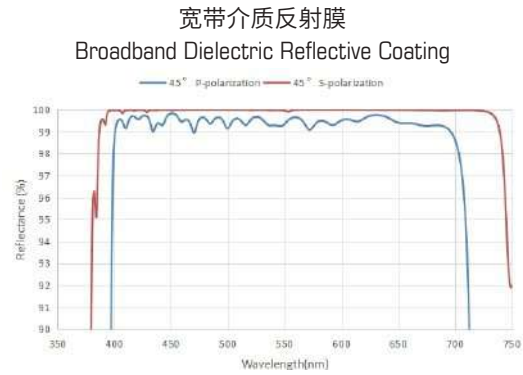
Coating Design 镀膜设计

We have an extensive inventory of over 400 coating designs, our engineers can use to provide a stock solution to your requirements. Using a stock coating can often reduce your coating cost, as it increases the efficient use of the coating chamber. In the event a custom design is required, our coating engineer used specialized software to design a coating to meet your spectral and environmental performance requirements.

我们有400多种的镀膜膜系设计,我们的工程师可以根据您的需求提供现有方案,充分利用我们的镀膜车间,从而有效降低您的镀膜费用。

如果您需要镀膜定制,我们的镀膜工程师将运用专业的软件来设计膜层,以满足您的光谱及应用环境需求。

Typical Coating Spectrum 典型镀膜光谱



Metrology Quality Assurance

精密测量 质量保证

UNI OPTICS is dedicated to continually evolving our knowledge and experience in order to deliver products and expertise that advance our clients' technologies. Combine with our manufacturing, we have the complete in-house inspection department and most advanced metrology instruments to ensure our products quality and stability.

优恩立致力于持续专业知识储备和改进生产技术, 保证客户产品成功交付, 为客户技术进步提供专业指导意见。我们有完善的内部检测体系和最先进的测量设备, 保证产品质量的稳定性和一致性。

Multi-function lens test station:
透镜综合测试仪
Radius
Focal length



Lambda 750 spectrophotometer:
分光光度计
Transmittance
Reflectance



ZYGO GPI Interferometer :
干涉仪
Surface flatness
Surface figure
Wavefront



Manufacturing

生产概要

Fast prototype 快速打样

Spherical polishing 球面抛光

Cylindrical polishing 柱面抛光

Prism&flats polishing 棱镜&平面抛光

Centering 定中心

Assembling 组装

