

短波通二向色镜/分束镜

特性

- 二向色滤光片作为短波通滤光片，可以最大程度地减少吸收损耗
- 提供四种尺寸：Ø1/2 英寸、Ø1 英寸、Ø2 英寸或 25 mm x 36 mm
 - 750 nm 二向色镜只有 35 mm x 52 mm 一种尺寸可选
- 硬质膜便于取放和清洁
- 耐紫外和化学损伤

QXKJ 的二向色镜/分光镜根据波长将光束分离透射光谱和反射光谱。短通二向色镜对低于截止波长的光束具有高透性，对高于截止波长的光束具有高反性。我们也提供长波通二向色镜，其对高于截止波长的光束具有高透性，对低于截止波长的光束具有高反性。

我们的二向色镜有多种截止波长可供选择，范围从 425 到 1500 nm，请参考右边的选择指南图示。除了 750 nm 和 1200 nm 二向色镜，其他二向色镜在指定波段的绝对透射率和绝对反射率分别 >85% 和 >90% (请参考下面的代表曲线)。750 nm 和 1200 nm 二向色镜的详细规格请在文件中查看。这些二向色镜设计用于 45° 入射，可选四种尺寸：Ø1/2 英寸、Ø1 英寸、Ø2 英寸和 25 mm x 36 mm，但 750 nm 二向色镜只有 35 mm x 52 mm 一种尺寸。

如应用标签所述，这些二向色镜光学元件可以合并一束波长(或波长范围)小于截至波长的光束与一束波长(或波长范围)大于截至波长的光束。它们也常用于分离空间重叠的不同颜色的光束。

这些光学元件的一个表面镀有二向色膜，另一个表面镀有增透膜。我们建议根据右上图示的方向使用光学元件。除 750 nm 之外的所有二向色镜遵循刻字规则：对于圆形光学元件，箭头指向镀增透膜的表面；对于光学元件，刻字的一面镀有二向色膜。对于截至波长为 750 nm 的光学元件，边缘刻有一个插入符号，尖端指向增透膜表面。

对于热敏应用，QXKJ 也提供热镜和冷镜。

表面质量和耐用性

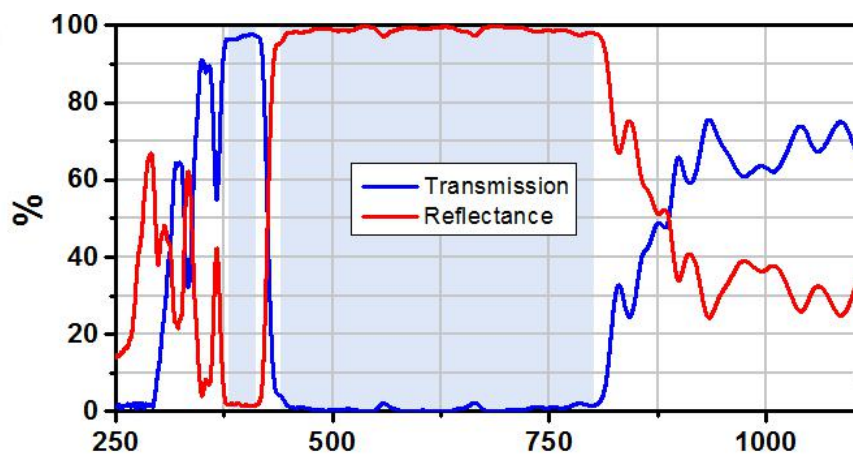
QXKJ 二向色镜/分束镜使用离子束溅射镀膜技术生产，在紫外熔融石英底上镀硬质薄膜，提供几乎为零的自发荧光和低热膨胀系数，是从紫外到近红外应用的理想选择。硬膜本身的表面质量为 40-20 划痕-麻点，可以使用一般玻璃的清洗和处理方法。和软膜不同的是，硬膜二向色镜更耐湿，能够承受高光学辐射强度，不会有可见的退化和烧伤，即使长时间暴露于紫外光下。关于这些滤光片的损伤阈值详情，请见损伤阈值标签。

短波通二向色镜/分束器：截止波长 425 nm

Specificationsa	
Cutoff Wavelength	425 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	380 - 410 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	440 - 800 nm

Specifications

Specificationsa	
Type	Shortpass
Cutoff Wavelength	425 nm
Transmission Banda	380 - 410 nm
Reflection Bandb	440 - 800 nm
AR Coating Rangep	380 - 410 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	< $\lambda/4$ @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica

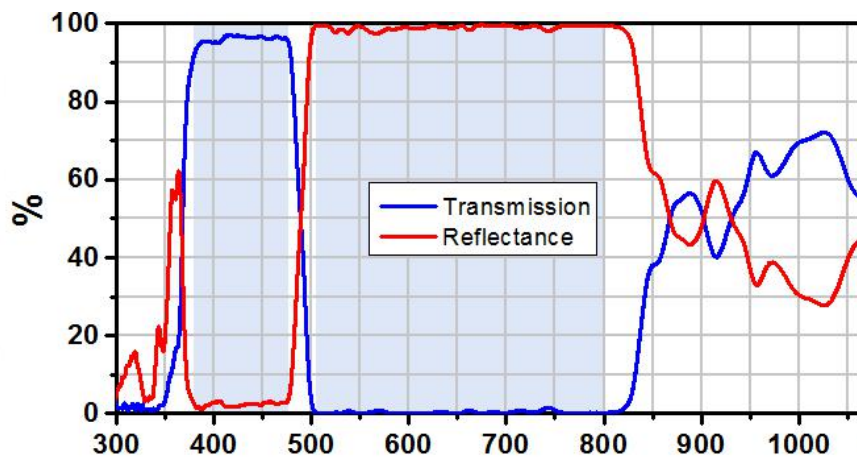


短波通二向色镜/分束器：截止波长 490 nm

Specificationsa	
Cutoff Wavelength	490 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	380 - 475 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	505 - 800 nm

Specifications	
Type	Shortpass
Cutoff Wavelength	490 nm
Transmission Banda	380 - 475 nm
Reflection Bandb	505 - 800 nm
AR Coating Rangep	380 - 475 nm

Specificationsa	
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	< $\lambda/4$ @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica

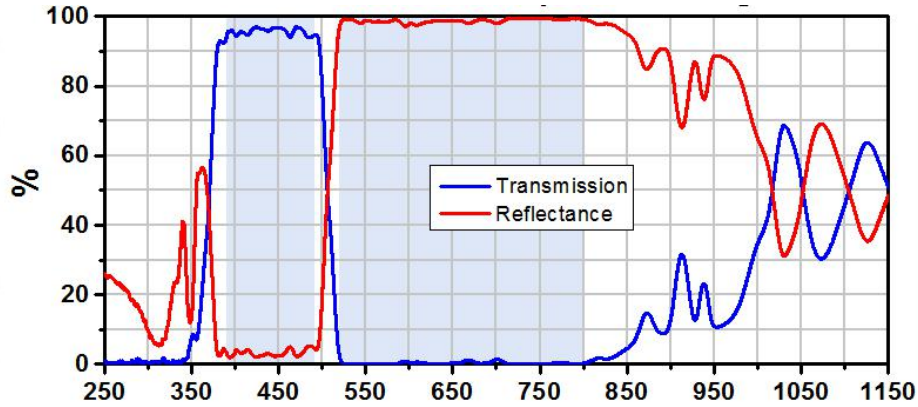


短波通二向色镜/分束器：截止波长 505 nm

Specificationsa	
Cutoff Wavelength	505 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	390 - 490 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	520 - 800 nm

Specifications	
Type	Shortpass
Cutoff Wavelength	505 nm
Transmission Banda	390 - 490 nm
Reflection Bandb	520 - 800 nm
AR Coating Ranged	390 - 490 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig

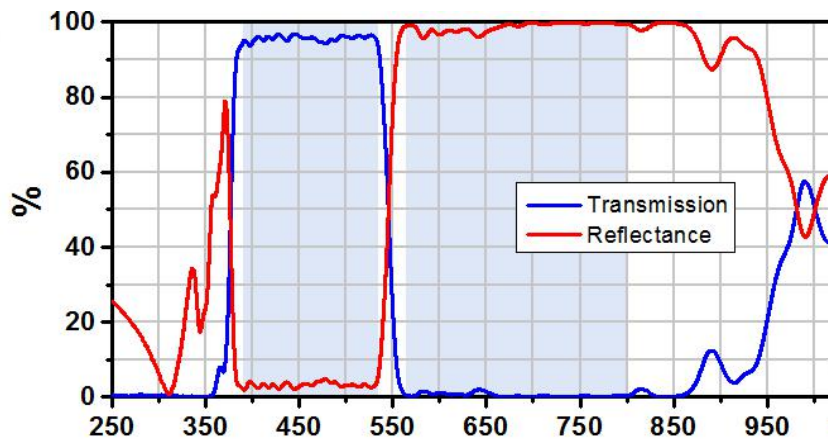
Specificationsa	
Transmitted Wavefront Error	< $\lambda/4$ @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica



短波通二向色镜/分束器：截止波长 550 nm

Specificationsa	
Cutoff Wavelength	550 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	390 - 533 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	565 - 800 nm

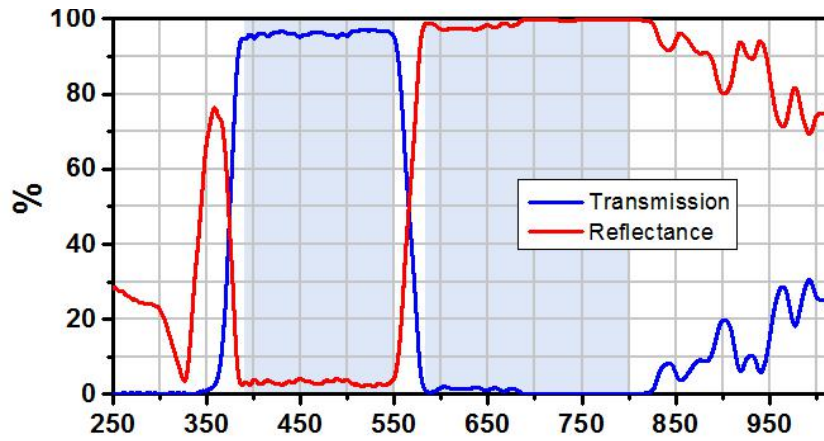
Specifications	
Type	Shortpass
Cutoff Wavelength	550 nm
Transmission Banda	390 - 533 nm
Reflection Bandb	565 - 800 nm
AR Coating Ranged	390 - 533 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	< $\lambda/4$ @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica



短波通二向色镜/分束器：截止波长 567 nm

Specificationsa	
Cutoff Wavelength	567 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	390 - 550 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	584 - 800 nm

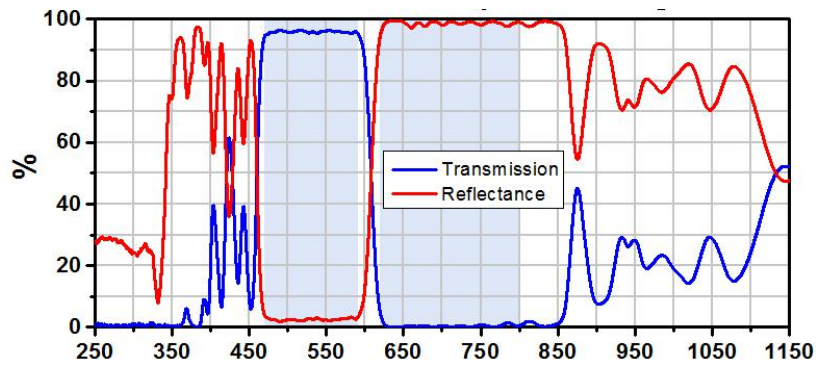
Specifications	
Type	Shortpass
Cutoff Wavelength	567 nm
Transmission Banda	390 - 550 nm
Reflection Bandb	584 - 800 nm
AR Coating Ranged	390 - 550 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	<λ/4 @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica



短波通二向色镜/分束器：截止波长 605 nm

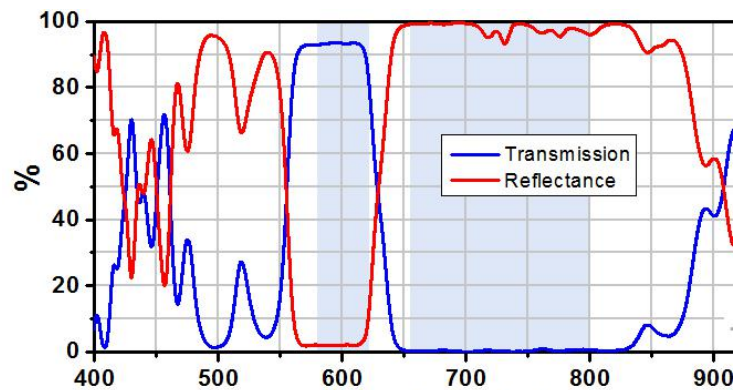
Specificationsa	
Cutoff Wavelength	605 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	470 - 590 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	620 - 800 nm

Specifications	
Type	Shortpass
Cutoff Wavelength	605 nm
Transmission Banda	470 - 590 nm
Reflection Bandb	620 - 800 nm
AR Coating Rangedc	470 - 590 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	<λ/4 @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica



短波通二向色镜/分束镜：截止波长 **638 nm**

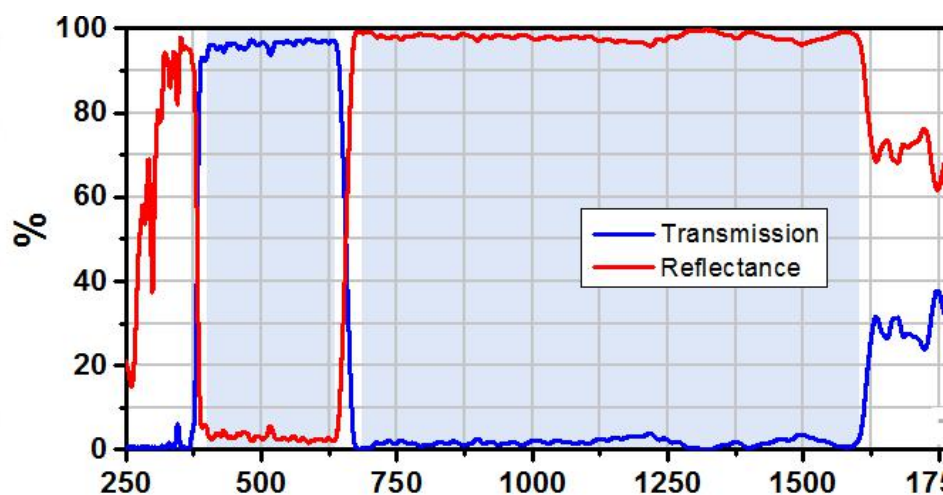
Specificationsa	
Cutoff Wavelength	638 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	580 - 621 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	655 - 800 nm
Specifications	
Type	Shortpass
Cutoff Wavelength	638 nm
Transmission Banda	580 - 621 nm
Reflection Bandb	655 - 800 nm
AR Coating Ranged	580 - 621 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	<λ/4 @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica



短波通二向色镜/分束器：截止波长 650 nm

Specificationsa	
Cutoff Wavelength	650 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	400 - 633 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	685 - 1600 nm

Specifications	
Type	Shortpass
Cutoff Wavelength	650 nm
Transmission Banda	400 - 633 nm
Reflection Bandb	685 - 1600 nm
AR Coating Ranged	400 - 633 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	<λ/4 @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica

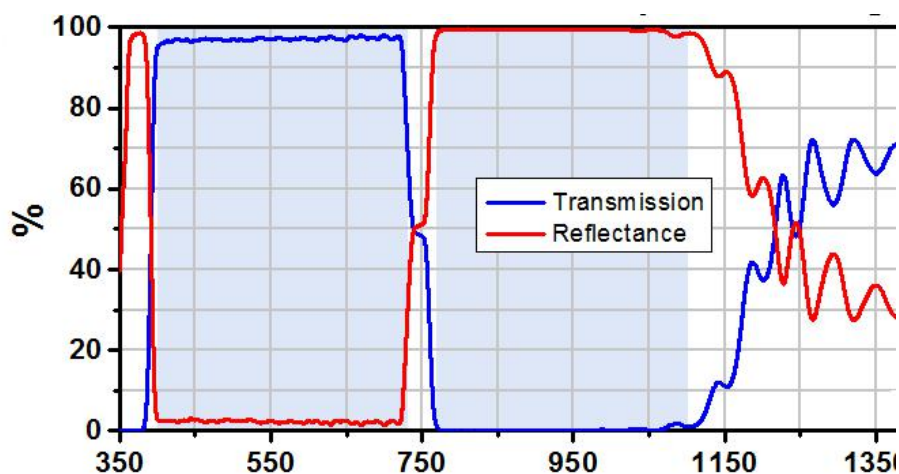


短波通二向色镜/分束器：截止波长 750 nm

Specificationsa	
Cutoff Wavelength	750 nm
Transmission Band (T _{avg} > 93%)	400 - 730 nm
Reflection Band (R _{avg} > 96%)	770 - 1100 nm

Specifications	
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Specificationsa	
Type	Shortpass
Cutoff Wavelength	750 nm
Transmission Banda	400 - 730 nm
Reflection Bandb	770 - 1100 nm
Size	35.0 x 52.0 mm
Clear Aperture	≥85%, Elliptical
Thickness	3.0 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	≤λ/4 @ 632.8 nm Over Clear Aperture
Substrate Material	UV Fused Silica

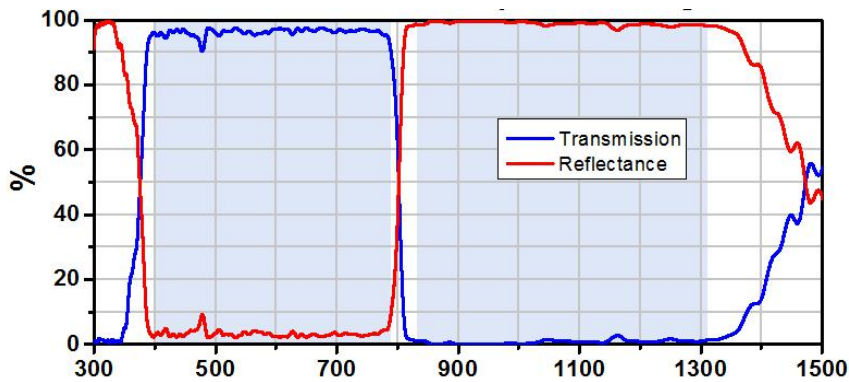


短波通二向色镜/分束器：截止波长 805 nm

Specificationsa	
Cutoff Wavelength	805 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	400 - 788 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	823 - 1300 nm

Specifications	
Type	Shortpass
Cutoff Wavelength	805 nm
Transmission Banda	400 - 788 nm
Reflection Bandb	823 - 1300 nm
AR Coating Rangedc	400 - 800 nm
Size	Ø1"

Specificationsa	
Clear Aperture	≥Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	λ/4 @ 633 nm Over Clear Aperture
Damage Threshold	1.00 J/cm ² (532 nm, 10 Hz, 10 ns, Ø250 μm) 7.00 J/cm ² (1064 nm, 10 Hz, 12 ns, Ø250 μm)
Substrate Material	UV Fused Silica

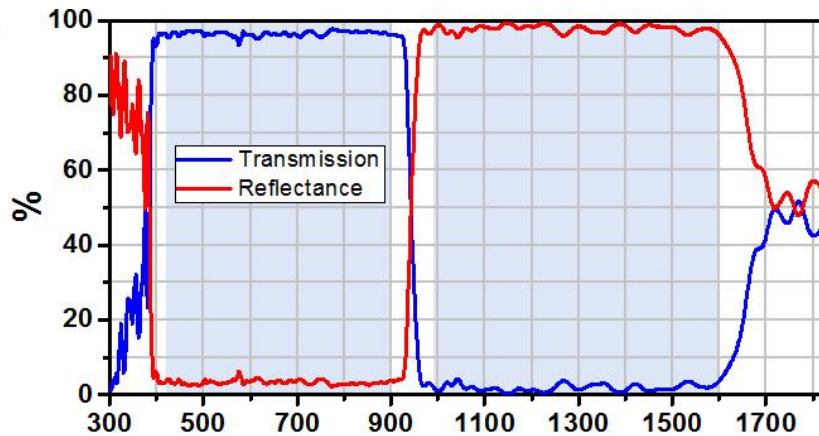


短波通二向色镜/分束器：截止波长 950 nm

Specificationsa	
Cutoff Wavelength	950 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	420 - 900 nm
Reflection Band (R _{abs} > 90%, R _{avg} > 95%)	990 - 1600 nm

Specifications	
Type	Shortpass
Cutoff Wavelength	950 nm
Transmission Banda	420 - 900 nm
Reflection Bandb	990 - 1600 nm
AR Coating Ranged	420 - 900 nm
Size	Ø1"
Clear Aperture	≥22.86 mm
Incident Angle	45°

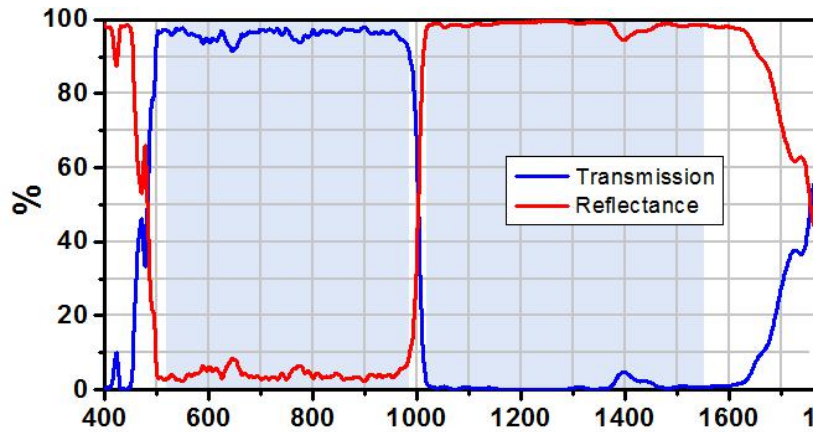
Specificationsa	
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	$\lambda/4$ @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica



短波通二向色镜/分束器：截止波长 **1000 nm**

Specificationsa	
Cutoff Wavelength	1000 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	520 - 985 nm
Reflection Band (R _{abs} > 90%)	1020 - 1550 nm
Shortpass	
Cutoff Wavelength	1000 nm
Transmission Banda	520 - 985 nm
Reflection Bandb	1020 - 1550 nm
AR Coating Ranged	520 - 985 nm
Size	Ø1"
Clear Aperture	≥Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	$\lambda/4$ @ 633 nm Over Clear Aperture
Damage Threshold	1.00 J/cm ² (532 nm, 10 Hz, 10 ns, Ø250 µm)
	9.50 J/cm ² (1064 nm)

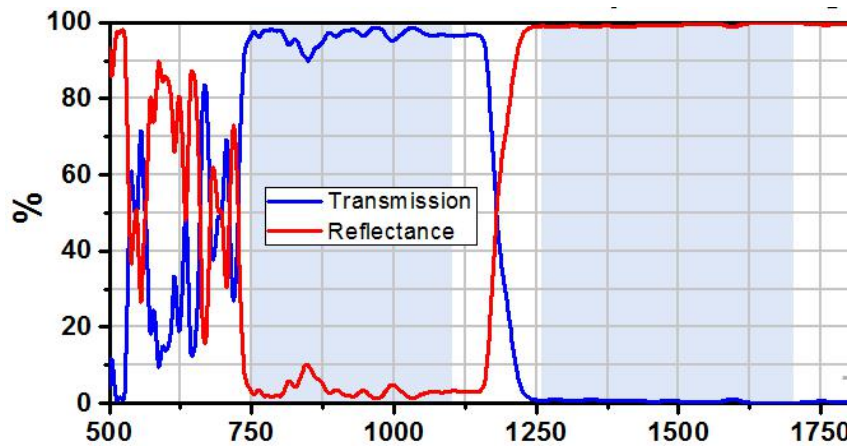
Specificationsa	
	nm, 10 Hz, 12 ns, Ø250 µm)
Substrate Material	UV Fused Silica



短波通二向色镜/分束器：截止波长 **1180 nm**

Specificationsa	
Cutoff Wavelength	1180 nm
Transmission Band (Tabs > 85%, Tavg > 90%)	750 - 1100 nm
Reflection Band (Rabs > 90%, Ravg > 95%)	1260 - 1700 nm

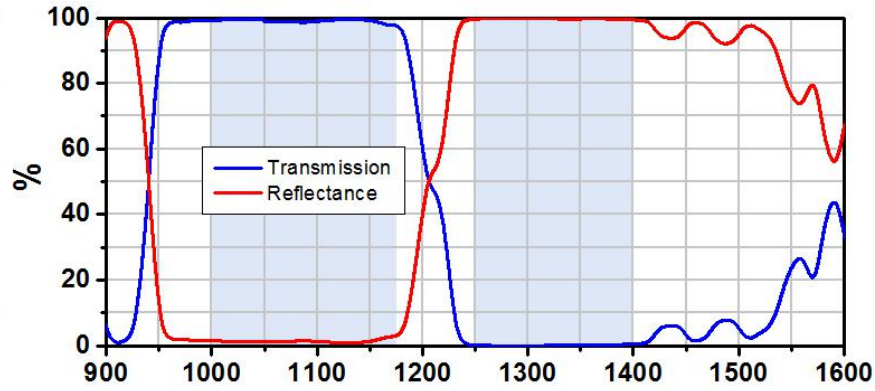
Specifications	
Type	Shortpass
Cutoff Wavelength	1180 nm
Transmission Banda	750 - 1100 nm
Reflection Bandb	1260 - 1700 nm
AR Coating Ranged	750 - 1100 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	λ/4 @ 633 nm Over Clear Aperture
Damage Threshold	3.0 J/cm ² (1064 nm, 10 Hz, 10 ns, Ø1.00 mm)
Substrate Material	UV Fused Silica



短波通二向色镜/分束器：截止波长 1200 nm

Specificationsa	
Cutoff Wavelength	1200 nm
Transmission Band (Tavg > 93%)	1000 - 1175 nm
Reflection Band (Ravg > 99%)	1250 - 1400 nm

Specifications	
Type	Shortpass
Cutoff Wavelength	1200 nm
Transmission Banda	1000 - 1175 nm
Reflection Bandb	1250 - 1400 nm
AR Coating Rangec	1000 - 1175 nm
Size	Ø1"
Clear Aperture	>Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	λ/4 @ 633 nm Over Clear Aperture
Substrate Material	UV Fused Silica



短波通二向色镜/分束器：截止波长 1500 nm

Specificationsa	
Cutoff Wavelength	1500 nm
Transmission Band (T _{abs} > 85%, T _{avg} > 90%)	1000 - 1450 nm
Reflection Band (R _{abs} > 90%)	1550 - 2000 nm
Specifications	
Type	Shortpass
Cutoff Wavelength	1500 nm
Transmission Banda	1000 - 1450 nm
Reflection Bandb	1550 - 2000 nm
AR Coating Ranged	932 - 1700 nm
Size	Ø1"
Clear Aperture	≥Ø22.86 mm
Thickness	3.2 mm
Incident Angle	45°
Surface Quality	40-20 Scratch-Dig
Transmitted Wavefront Error	λ/4 @ 633 nm Over Clear Aperture
Damage Threshold	7.00 J/cm ² (1064 nm, 10 Hz, 12 ns, Ø250 μm)
Substrate Material	UV Fused Silica

