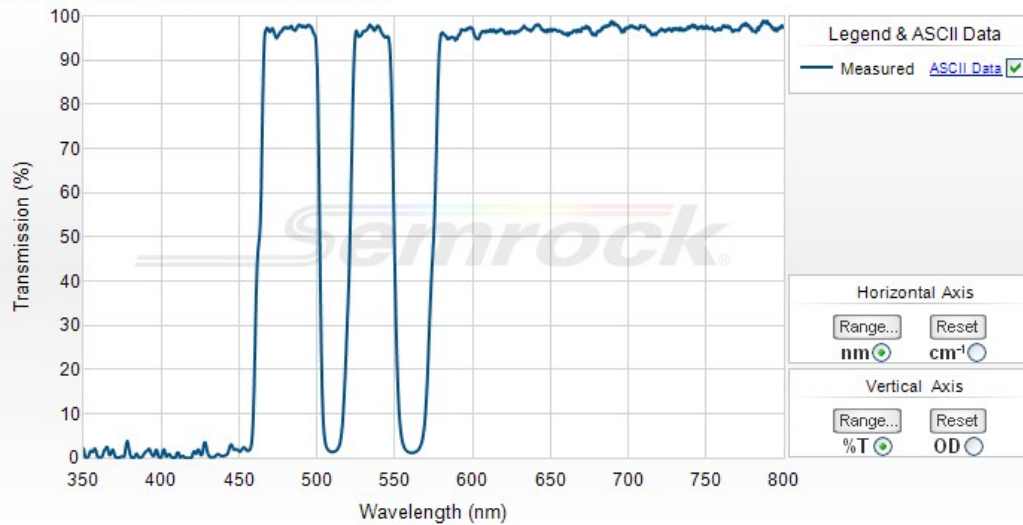


## 442/514/561 nm lasers BrightLine® triple-edge laser-flat dichroic beamsplitter

Part Number: Di01-R442/514/561-25x36



### Semrock, Inc

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(within US and Canada)

Your filter spectrum may differ slightly from the typical spectrum above, but is certified to meet the optical specifications noted below.



### 442/514/561 nm lasers BrightLine® triple-edge laser-flat dichroic beamsplitter

Optimized beamsplitters for the most popular lasers used in fluorescence imaging, including newer all-solid-state lasers. All beamsplitters in this category have exceptional reflectance at the laser wavelengths, improved ("laser-grade") flatness, and anti-reflection (AR) coatings to minimize imaging artifacts resulting from the coherent laser light.

Part Number	Size	Price <sup>1</sup>	Stock Status
Di01-R442/514/561-25x36	25.2 mm x 35.6 mm x 1.1 mm (unmounted)	\$515	In Stock

This part is not available for custom sizing.

1) US domestic pricing only. If you are ordering from outside the US, please contact your nearest [regional distributor](#) for the correct list price.

### Optical Specifications

Specification	Value
Reflection Band 1	Rabs > 94% 438 – 458 nm
Reflection Band 1 (p-pol)	Rabs > 90% 438 – 458 nm
Reflection Band 1 (s-pol)	Rabs > 98% 438 – 458 nm
Edge Wavelength 1	464 nm
Transmission Band 1	Tavg > 93% 469.5 – 496.5 nm
Reflection Band 2	Rabs > 94% 509 – 515 nm
Reflection Band 2 (p-pol)	Rabs > 90% 509 – 515 nm
Reflection Band 2 (s-pol)	Rabs > 98% 509 – 515 nm
Edge Wavelength 2	523 nm
Transmission Band 2	Tavg > 93% 527.5 – 545 nm
Reflection Band 3	Rabs > 94% 559 – 568.2 nm
Reflection Band 3 (p-pol)	Rabs > 90% 559 – 568.2 nm
Reflection Band 3 (s-pol)	Rabs > 98% 559 – 568.2 nm
Edge Wavelength 3	576 nm
Transmission Band 3	Tavg > 93% 582 – 800 nm
Laser Wavelengths 1	440 +3/-1 nm, 442.0 nm, 457.9 nm
Laser Wavelengths 2	505.0 nm, 514.5 nm, 515.0 nm
Laser Wavelengths 3	559 +5/-0 nm, 561.4 nm, 568.2 nm

### General Filter Specifications

Specification	Value
Angle of Incidence	45 degrees with a shift of 0.35%/degree (40 – 50 degrees)
Cone Half-angle	0.5 degrees
Optical Damage Rating	2 J/cm <sup>2</sup> at 532 nm (for a 532nm filter)

Flatness	<a href="#">Laser Flat</a>
Steepness	Steep
Effective Index	1.75

**Physical Filter Specifications (applies to standard sized parts; contact us regarding other sizes)**

Specification	Value
Transverse Dimensions (L x W)	25.2 mm x 35.6 mm
Transverse Tolerance	± 0.1 mm
Filter Thickness (unmounted)	1.05 mm
Filter Thickness Tolerance (unmounted)	± 0.05 mm
Clear Aperture	≥ 80% (elliptical)
Scratch-Dig	60-40
Substrate Type	Fused Silica
Substrate Thickness (unmounted)	1.05 mm
Substrate Thickness Tolerance (unmounted)	± 0.05 mm
Orientation	Reflective surface marked with part number - Orient in direction of incoming light