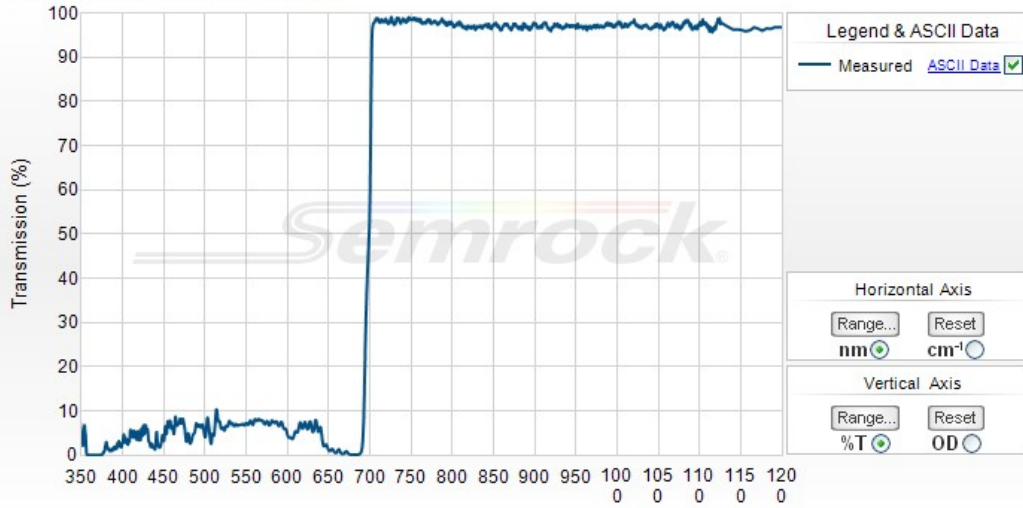


685 nm Laser BrightLine® single-edge super-resolution laser dichroic beamsplitter

Part Number: Di03-R685-t1-25x36



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.

685 nm Laser BrightLine® single-edge super-resolution laser dichroic beamsplitter

The perfect beamsplitters for the most popular lasers used in fluorescence imaging, including all-solid-state lasers. All beamsplitters in this category have exceptional reflectance at the laser wavelengths, wider reflection bands — into UV for photoactivation and super-resolution techniques, and extended transmission regions — into IR to 1200 or 1600 nm, and anti-reflection (AR) coatings to minimize imaging artifacts resulting from the coherent laser light.

Semrock's super-resolution laser dichroics deliver industry-leading flatness for minimal focus shift and optical wavefront aberrations of the laser beam spot to enable popular imaging and Super-resolution techniques such as TIRF, PALM, STORM, Structured-Illumination, and STED.

1λ P-V RWE on 1 mm
λ/5 P-V RWE on 3 mm

Part Number	Size	Price ¹	Stock Status
Di03-R685-t1-25x36	25.2 mm x 35.6 mm x 1.1 mm (unmounted)	\$545	In Stock
Di03-R685-t3-25x36	25.2 mm x 35.6 mm x 3.0 mm (unmounted)	\$645	In Stock

This part is not available for custom sizing - [contact us](#) (semrock@idexcorp.com) for 50.8mm sizes

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	R _{abs} > 94% 671.0 – 690.0 nm
Reflection Band 1 (p-pol)	R _{abs} > 90% 671.0 – 690.0 nm
Reflection Band 1 (s-pol)	R _{abs} > 98% 671.0 – 690.0 nm
Reflection Band 2	R _{avg} > 90% 350.0 – 671.0 nm
Edge Wavelength 1	698.9 nm
Transmission Band 1	T _{avg} > 93% 702.5 – 1200 nm
Laser Wavelengths 1	671.0 nm, 676.0 nm, 685 ± 5 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	Not Tested
Flatness (1 mm thickness)	1λ P-V RWE @ 632.8 nm
Flatness (3 mm thickness)	λ/5 P-V RWE @ 632.8 nm
Steepness	Steep
Filter Effective Index	2.07 Understanding Filter Effective Index

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

Specification	Value
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Specification	Value
Transverse Dimensions (L x W)	25.2 mm x 35.6 mm
Transverse Tolerance	± 0.1 mm
Filter Thickness (1 mm, unmounted)	1.05 mm
Filter Thickness Tolerance (1 mm, unmounted)	± 0.05 mm
Filter Thickness (3 mm, unmounted)	3.0 mm
Filter Thickness Tolerance (3 mm, unmounted)	± 0.1 mm
Clear Aperture	≥ 80% (elliptical)
Scratch-Dig	60-40
Substrate Type	Fused Silica
Substrate Thickness (1 mm, unmounted)	1.05 mm
Substrate Thickness Tolerance (1 mm, unmounted)	± 0.05 mm
Substrate Thickness (3 mm, unmounted)	3.0 mm
Substrate Thickness Tolerance (3 mm, unmounted)	± 0.1 mm
Orientation	Reflective surface marked with laser dot - Orient in direction of incoming light