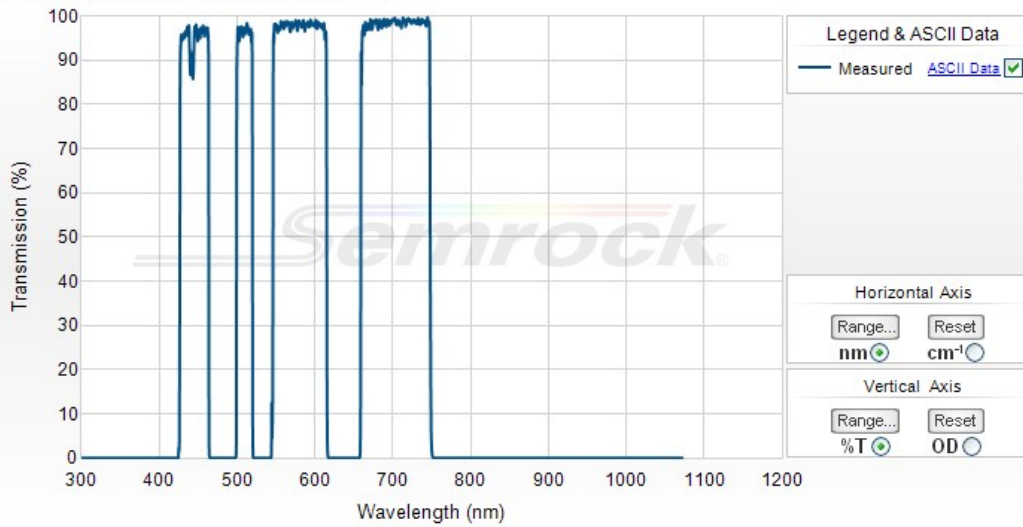


**446/510/581/703 nm BrightLine® quad-band bandpass filter**

Part Number: FF01-446/510/581/703-25



**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.



**446/510/581/703 nm BrightLine® quad-band bandpass filter**

Individual multiband fluorescence bandpass filters that utilize Semrock's patented single-substrate construction. These filters have extremely high transmission, steep and well-defined edges, and outstanding blocking between the passbands. All thin-film, hard-coated construction for unsurpassed performance and reliability.

Part Number	Size	Price <sup>1</sup>	Stock Status
FF01-446/510/581/703-25	25 mm x 3.5 mm	\$495	In Stock
FF01-446/510/581/703-23.3-D	23.3 mm x 2.0 mm (unmounted)	\$495	2nd Day Ship

Don't see a size you need? Contact us for custom sizing – available in less than a week (sizing fee applies).

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
Transmission Band 1	T <sub>avg</sub> > 93% 429.5 – 462.0 nm
Center Wavelength 1	445.8 nm
Guaranteed Minimum Bandwidth 1	32.5 nm
FWHM Bandwidth 1 (nominal)	37.4 nm
Transmission Band 2	T <sub>avg</sub> > 93% 502.5 – 518.5 nm
Center Wavelength 2	510.5 nm
Guaranteed Minimum Bandwidth 2	16 nm
FWHM Bandwidth 2 (nominal)	20.5 nm
Transmission Band 3	T <sub>avg</sub> > 93% 550 – 613 nm
Center Wavelength 3	581.5 nm
Guaranteed Minimum Bandwidth 3	63 nm
FWHM Bandwidth 3 (nominal)	69.3 nm
Transmission Band 4	T <sub>avg</sub> > 93% 663 – 743 nm
Center Wavelength 4	703 nm
Guaranteed Minimum Bandwidth 4	80 nm
FWHM Bandwidth 4 (nominal)	87.6 nm
Blocking Band 1	OD <sub>avg</sub> > 4 200 – 370 nm
Blocking Band 2	OD <sub>avg</sub> > 8 370 – 410 nm (Design specification - <a href="#">measurements are noise-floor limited</a> )
Blocking Band 3	OD > 3.5 419.8 nm
Blocking Band 4	OD > 3.5 467.5 nm
Blocking Band 5	OD <sub>avg</sub> > 8 473 – 491 nm (Design specification - <a href="#">measurements are noise-floor limited</a> )
Blocking Band 6	OD > 3.5 496.8 nm
Blocking Band 7	OD > 3.5 524.5 nm

Blocking Band 8	OD <sub>avg</sub> > 8 530.5 – 533.5 nm (Design specification - <a href="#">measurements are noise-floor limited</a> )
Blocking Band 9	OD > 3.5 541.8 nm
Blocking Band 10	OD > 3.5 622.9 nm
Blocking Band 11	OD <sub>avg</sub> > 8 632.8 – 647.1 nm (Design specification - <a href="#">measurements are noise-floor limited</a> )
Blocking Band 12	OD > 3.5 655.1 nm
Blocking Band 13	OD <sub>avg</sub> > 5 760.9 – 900 nm
Blocking Band 14	OD <sub>avg</sub> > 5 1064 nm

### General Filter Specifications

Specification	Value
Angle of Incidence	0 ± 5 degrees
Cone Half-angle	7 degrees
Optical Damage Rating	Testing has proven to show no signs of degradation when exposed to at least 6.0 W of power from an unfiltered xenon arc lamp over a 25 mm diameter (corresponding to 1.2 W/cm <sup>2</sup> ) for over 500 hrs.
Effective Index	1.99

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

Specification	Value
Transverse Dimensions (Diameter)	25 mm
Transverse Tolerance (mounted)	+ 0.0 / - 0.1 mm
Filter Thickness (Mounted)	3.5 mm
Filter Thickness Tolerance (Mounted)	± 0.1 mm
Clear Aperture	≥ 22 mm
Scratch-Dig	60-40
Substrate Thickness (unmounted)	2.0 mm
Substrate Thickness Tolerance (unmounted)	± 0.1 mm
Orientation	Arrow on ring indicates preferred direction of propagation of light