432/515/595/681/809 nm BrightLine® penta-band bandpass filter

Part Number: FF01-432/515/595/681/809-25





Semrock, Inc

3625 Buffalo Road, Suite 6 Rochester, New York 14624

Main Phone: +1 585.594.7050 (worldwide)
Toll Free Phone: 866.736.7625 (866-SEMROCK)
(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.



432/515/595/681/809 nm BrightLine® penta-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	Price1	Stock Status
FF01-432/515/595/681/809-25	New Product	25 mm x 3.5 mm	\$575	In Stock
FF01-432/515/595/681/809-23.3-D	New Product	23.3 mm x 2.0 mm (unmounted)	\$575	In Stock

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

Optical Specifications	
Specification	Value
Transmission Band 1	Tavg > 93% 414– 450 nm
Center Wavelength 1	432 nm
Guaranteed Minimum Bandwidth 1	36 nm
FWHM Bandwidth 1 (nominal)	39.7 nm
Transmission Band 2	Tavg > 93% 499.5 – 530 nm
Center Wavelength 2	515 nm
Guaranteed Minimum Bandwidth 2	30.5 nm
FWHM Bandwidth 2 (nominal)	33.8 nm
Transmission Band 3	Tavg > 93% 580 – 611 nm
Center Wavelength 3	595 nm
Guaranteed Minimum Bandwidth 3	31 nm
FWHM Bandwidth 3 (nominal)	34.8 nm
Transmission Band 4	Tavg > 93% 661 – 701 nm
Center Wavelength 4	681 nm
Guaranteed Minimum Bandwidth 4	40 nm
FWHM Bandwidth 4 (nominal)	43.8 nm
Transmission Band 5	Tavg > 93% 768.5 – 849.5 nm
Center Wavelength 5	809 nm
Guaranteed Minimum Bandwidth 5	81 nm
FWHM Bandwidth 5 (nominal)	87.5 nm
Blocking Band 1	ODavg > 4 200 – 352 nm
Blocking Band 2	ODavg > 8 352 - 404 nm (Design specification - measurements are noise-floor limited)
Blocking Band 3	OD > 3.5 409 nm

Blocking Band 4	OD > 3.5 455.5 nm
Blocking Band 5	ODavg > 8 461 - 487.5 nm (Design specification - measurements are noise-floor limited)
Blocking Band 6	OD > 3.5 493.5 nm
Blocking Band 7	OD > 3.5 536.5 nm
Blocking Band 8	ODavg > 8 543 - 566 nm (Design specification - measurements are noise-floor limited)
Blocking Band 9	OD > 3.5 573 nm
Blocking Band 10	OD > 3.5 618.5 nm
Blocking Band 11	ODavg > 8 626 - 644 nm (Design specification - measurements are noise-floor limited)
Blocking Band 12	OD > 3.5 651.8 nm
Blocking Band 13	OD > 3.5 711 nm
Blocking Band 14	ODavg > 8 721 - 749 nm (Design specification - measurements are noise-floor limited)
Blocking Band 15	OD > 3.5 759 nm
Blocking Band 16	ODavg > 5 870 - 900 nm
Blocking Band 17	ODavg > 5 900 - 1080 nm
Blocking Band 18	ODavg > 2 1080 - 1100 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/cm²) for over 500 hrs.	
Effective Index	1.89	

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