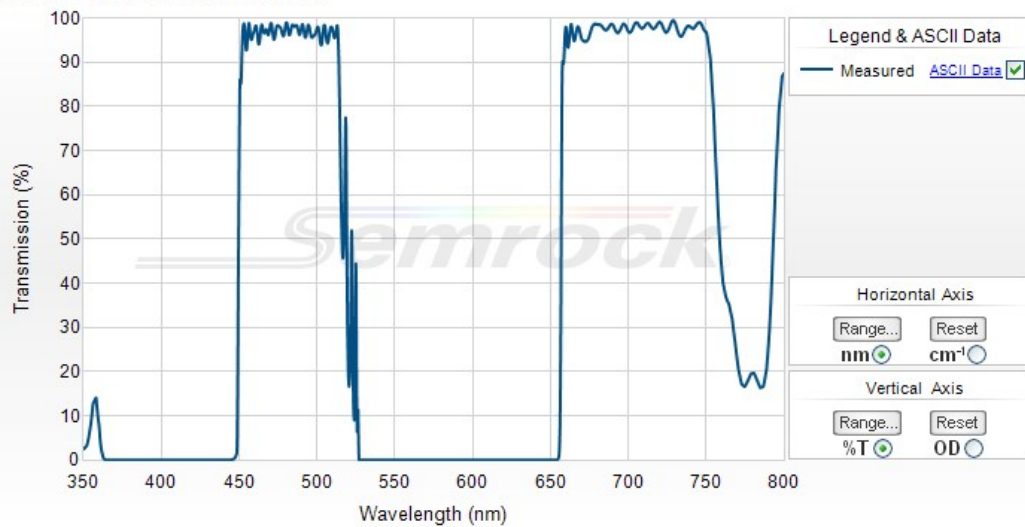


## 442/647 nm Yokogawa emission filter

Part Number: Em01-R442/647-25



### 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.



### 442/647 nm Yokogawa emission filter

Combining superior performance with exceptional durability, these filters are specifically optimized for use with all Yokogawa CSU spinning-disk scan head system configurations.

Part Number	Size	Price <sup>1</sup>	Stock Status
Em01-R442/647-25	25 mm x 3.5 mm	\$405	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
Transmission Band 1	T <sub>avg</sub> > 90% 458 – 512 nm
Center Wavelength 1	485 nm
Guaranteed Minimum Bandwidth 1	54 nm
FWHM Bandwidth 1 (nominal)	74.7 nm
Transmission Band 2	T <sub>avg</sub> > 90% 663 – 750 nm
Center Wavelength 2	706.5 nm
Guaranteed Minimum Bandwidth 2	87 nm
FWHM Bandwidth 2 (nominal)	109.0 nm (+100 nm of varying transmission)
Blocking Band 1	OD <sub>dabs</sub> > 6 405 nm
Blocking Band 2	OD <sub>dabs</sub> > 6 442 nm
Blocking Band 3	OD <sub>dabs</sub> > 6 561 – 568 nm
Blocking Band 4	OD <sub>dabs</sub> > 6 638 – 647 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	1.83

### 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)	$\pm 0.1$ mm
Clear Aperture	$\geq 22$ mm
Scratch-Dig	60-40
Substrate Thickness (unmounted)	2.0 mm
Substrate Thickness Tolerance (unmounted)	$\pm 0.1$ mm
Orientation	Arrow on ring indicates preferred direction of propagation of light