

# BrightLine® Multiphoton LaserMUX™ Beam Combining Filters

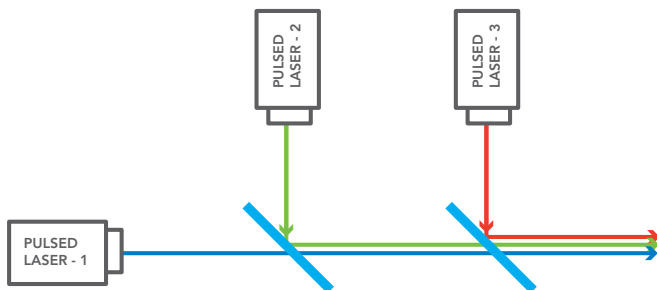
## Product Data Sheet

### Multiphoton Laser Beam Combining Filters Optimized for Optogenetics

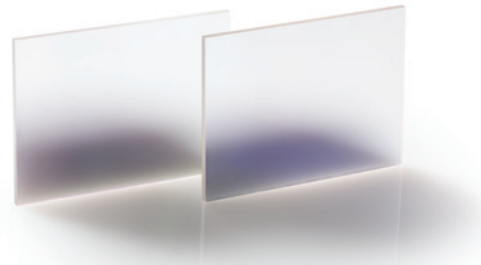
Our Multiphoton LaserMUX beam combiners enable deeper tissue imaging and improved contrast in multi-color and multi-modal fluorescence microscopy. The filters set new performance standards by simultaneously achieving high transmission, high reflection, and low GDD over both reflection & transmission, while maintaining minimal wavefront distortion. Ideal for combining two femtosecond pulsed laser beams, they are perfect for optogenetics and other life science applications.

- ✓ Combine two or more femtosecond pulsed lasers such as Ti:Sapphire (& OPO coupled), neodymium and ytterbium-doped fiber and glass lasers, and Cr-forsterite lasers
- ✓  $< \pm 100 \text{ fs}^2$  GDD at popular laser wavelengths for minimal pulse dispersion

Multiphoton LaserMUX Beam Combiners			
Nominal Edge Wavelength	Part Number	Reflection Range (>95%, average)	Transmission Range (>93% average)
850 nm	FF850-Di01-t1-25x36	670 – 815 nm	890 – 2100 nm
980 nm	FF980-Di01-t1-25x36	770 – 938 nm	1022 – 2100 nm

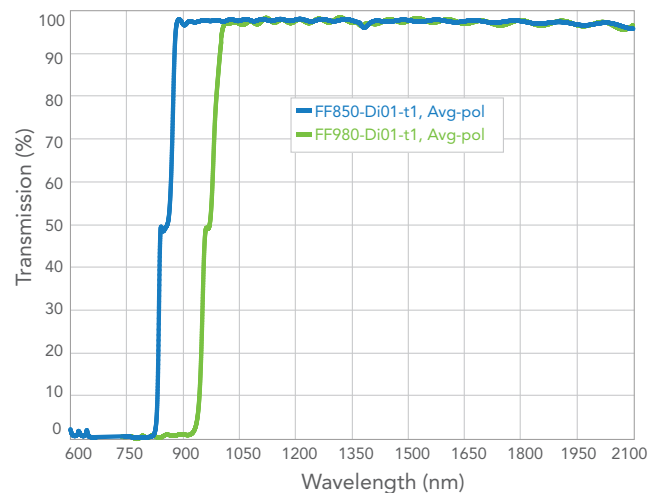


BrightLine Multiphoton LaserMUX Beam Combiners can be used to combine multiple pulsed laser beams



- ✓  $< \pm 500 \text{ fs}^2$  GDD over entire reflection & transmission
- ✓ Wavefront performance designed for deep tissue & *in vivo* imaging
  - ✓  $< 1\lambda$  P-V Reflected Wavefront Error (RWE) on 1 mm
  - ✓  $< \lambda/10$  P-V Transmitted Wavefront Error (TWE)
- ✓ Achieve higher transmission and reflection %, as well as expanded range for reflection & transmission bands by aligning polarization of laser beam with the spectral performance of the filter

For additional details visit: [www.semrock.com/MP-LaserMUX](http://www.semrock.com/MP-LaserMUX)



Multiphoton LaserMUX Beam Combiners are designed to provide minimal pulse dispersion both in reflection and transmission.