



Custom Filters from Prototype to Production

TECHNICAL PRODUCT SHEET

Custom Bandpass Filters

What is a Bandpass Filter?

A bandpass filter allows signal wavelengths (colors) to pass through (transmit) while blocking unwanted light of other wavelengths.

Why choose an Omega Filter?

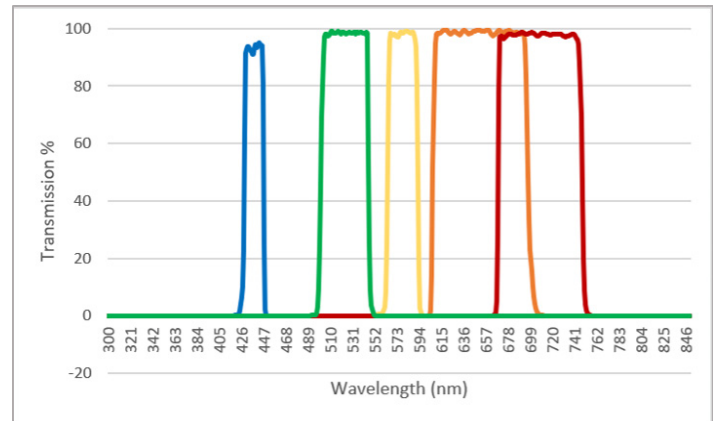
- Use Omega to design and manufacture **custom filters** that will differentiate your product
- 50 years of engineering services to optimize your filter needs
- Experience with unusual materials to provide superior Angle of Incidence (AOI) performance
- Extensive inventory for rapid prototyping and development
- High-volume production
- In house optic shop for custom sizes, shapes and substrates
- USA made, ITAR and ISO registered

Bandpass Filter Features

- **Center Wavelength (CWL)**—the wavelength at the center of the passband
- **Full Width at Half Maximum (FWHM)**—the bandwidth at 50% of the maximum transmission
- **Peak Transmission (T)**—the wavelength of maximum transmission
- **Edge Steepness**- how fast the filter transitions from blocking to transmission
- **Pass-band ripple**- how flat the transmission region is
- **Blocking**- the degree to which unwanted light is removed

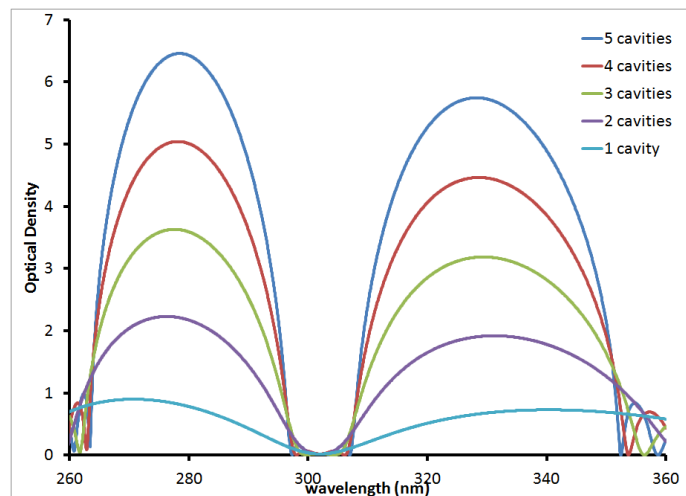
Bandpass Filter Types

- UV Bandpass down to ~200 nm
- VIS Bandpass (400- 700 nm)
- IR Bandpass (700 nm- 10 micron)
- Multiband filters (dual-, triple-, quadruple-bandpass)
- NarrowBand filters (< 2 nm FWHM)



Blocking for Bandpass Filters

Blocking is the wavelength region that needs to be attenuated. Attenuation is measured in Optical Density- a log scale related to % T. The higher the OD, the deeper the blocking. To learn more about optical density, read our technical note here: omegafilters.com/library .



ISO 9001:2015 CERTIFIED • SBA REGISTERED SMALL BUSINESS • ITAR REGISTERED • MADE IN THE USA

Omega Optical, Inc.
21 Omega Drive,
Brattleboro, Vermont, USA

Toll Free: (866) 488-1064
Phone: +1 (802) 251-7300
Fax: +1 (802) 254-3937

sales@omegafilters.com
www.omegafilters.com

