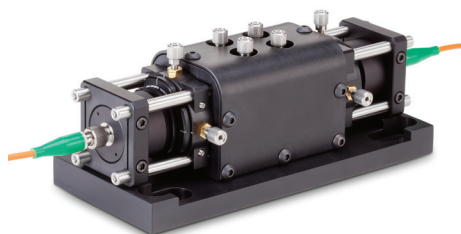


SureBlock™ XLF Notch Filter System



Ondax's SureBlock™ XLF Notch Filter System boosts the performance of single-stage Raman spectrometers to triple-stage levels, providing outstanding eXtreme Low-Frequency resolution while maintaining exceptional throughput. Incorporating two SureBlock™ ultra narrow-band notch filters in a pre-aligned, light-tight enclosure, the SureBlock™ XLF delivers >OD 8 Rayleigh suppression capability, enabling the simultaneous capture of both Stokes and anti-Stokes Raman signals down to 10cm^{-1} .

The SureBlock™ XLF can be configured with either free-space or fiber-coupled inputs and outputs†, enabling flexible integration with a wide variety of existing commercial spectrometers. Available at standard Raman wavelengths including: 488nm, 514nm, 532nm, 633nm, 78Xnm. Custom wavelengths and integration options are available by request.

Features:

- Compact, pre-aligned, light-tight enclosure
- Configurable free-space or fiber-coupled input/output options
- Compatible with most commercial spectrometers
- Ultra-narrow rejection bandwidth ($<10\text{cm}^{-1}$)
- 10x reduction in spectral transition width compared to thin-film edge filters
- High Optical Density (>OD8) with extremely high throughput*
- Repeatable, environmentally stable performance
- No degradation in performance over time

Specifications:

Parameter	488nm	514nm	532nm	633nm	78Xnm
Spectral Transition Width (center to 50% transmission)	$<10\text{cm}^{-1}$	$<10\text{cm}^{-1}$	$<10\text{cm}^{-1}$	$<10\text{cm}^{-1}$	$<10\text{cm}^{-1}$
Optical Density at Laser Line (each filter)	> 4	> 4	> 4	> 4	> 4
Expected System Optical Density	> 8	> 8	> 8	> 8	> 8
Typical Transmission Efficiency (each filter)	60%	65%	70%	80%	90%
Free Space Aperture Diameter	Standard: 9 mm, Custom sizes available				
Fiber Input/Output Connector Type	Recommended: FC/PC, Others available upon request				

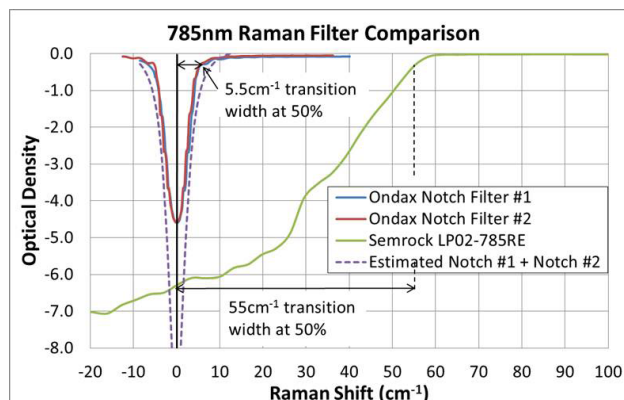
Applications:

- Low frequency Raman spectroscopy
- Structural studies of nanomaterials
- Biomedical and solid state laser systems
- Edge or wide-band notch filter replacement

* Throughput varies with wavelength

† Output via multimode fiber is recommended

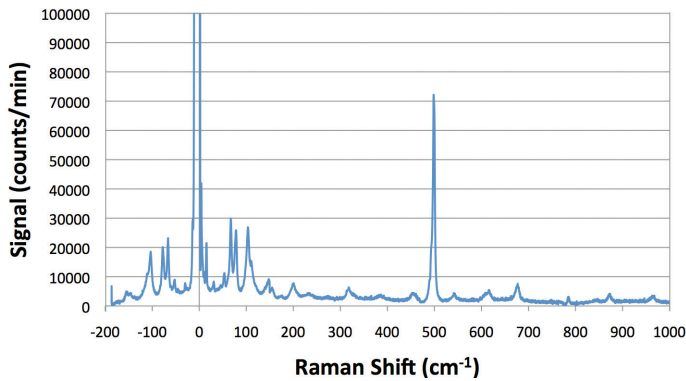
Ultra narrow-band notch transition to 50% transmission



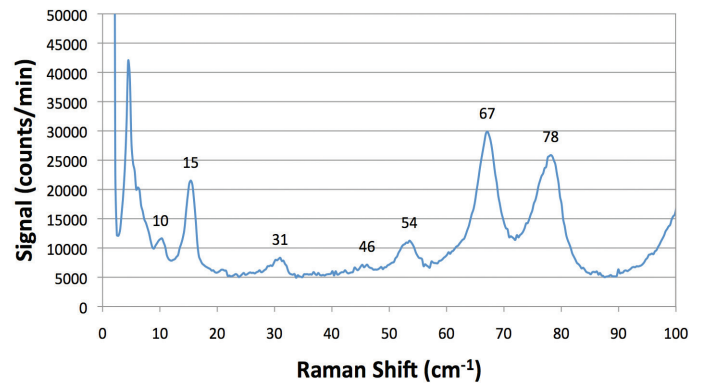
SureBlock™ XLF Notch Filter System

Captured Raman Spectra of L-Cystine

High throughput Stokes and anti-Stokes



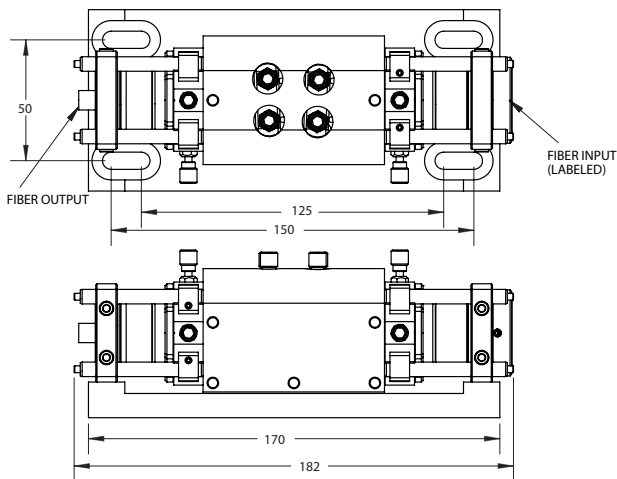
Ultra-low frequency measurements† <10cm⁻¹



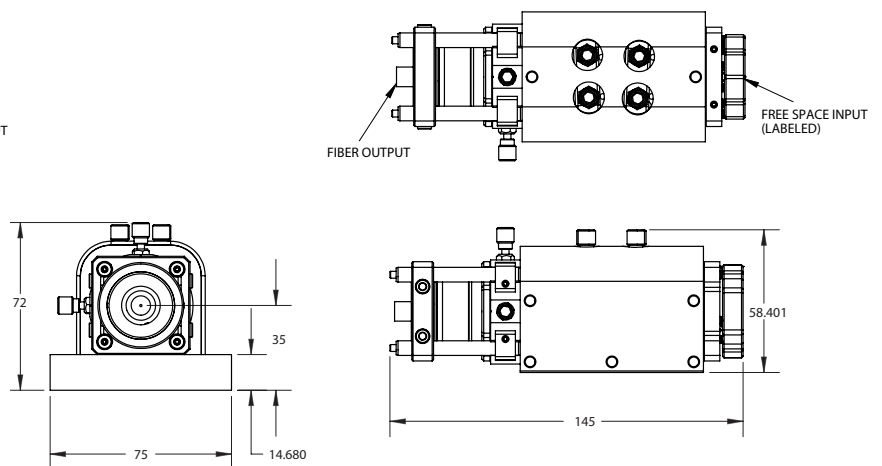
† Data taken using an Ondax SureLock 785nm wavelength stabilized laser, SureBlock 785nm ultra narrow-band notch filters, and a single-stage Princeton Instruments SpectraPro 2300i

Mechanical Drawings

Fiber to Fiber Configuration



Free Space to Fiber Configuration



*Dimensions in millimeters

Ordering Information



Fiber In, Fiber Out



Free Space In, Fiber Out

XLF- $\lambda\lambda.\lambda$ - AA - BB

λ : Wavelength¹ (nm)

A: Input Style²

B: Output Style²

¹ Specified in vacuum to 0.1nm accuracy required for 532 & 78X

² FC = FC/PC, SM = SMA, FS = Free Space, CC = Custom (specify)



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For more information about Ondax products and the name of a local representative or distributor, visit www.ondax.com, email sales@ondax.com, or call (626) 357-9600. Specifications subject to change without notice.

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