

CleanLine™ ASE Filter and Laser Systems

Ondax CleanLine™ Series ASE Filter Systems are a family of tightly integrated, pre-aligned, multi-element ASE Filter Modules and lasers designed to provide the enhanced narrow band, low noise, ASE-free laser performance required for ultra-low-frequency Raman spectroscopy, and other demanding spectroscopy or metrology applications. Configured for fast, easy alignment and use with our SureBlock™ XLF Series Raman Filter Systems, the CleanLine™ family is based on our proprietary NoiseBlock™ solid-state, ultra-narrow band Volume Holographic Filter technology, delivering unlimited lifetime, exceptional throughput, and ultra-stable environmental performance.

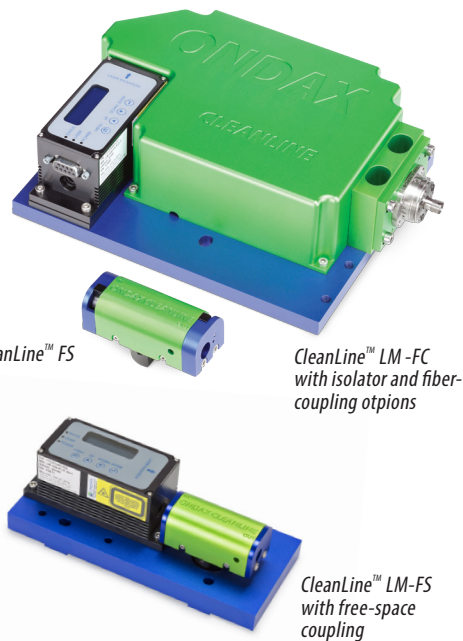
The CleanLine™ FS free-space filter system is an ultra-compact (3" or 75mm) filter system with integrated alignment irises and a built-in wavelength fine-tuning adjustment. The CleanLine™ LM-FS incorporates a SureLock™ LM Series wavelength-stabilized laser module along with a CleanLine™ FS. And the CleanLine™ LM-FC includes an optical isolator and various fiber-coupling options – making the CleanLine™ easily configurable for turn-key integration into your experiment, instrumentation, or Raman spectroscopy system.

Available for standard wavelengths of 785nm, 532nm, and 405nm. Custom wavelengths are available upon request.

Specifications:

Specification ¹	units	405nm	532nm ¹	785nm
ASE Suppression (below laser line), typical	dB	-80	-80	-80
Throughput ¹ (FS version), minimum/typical	% of incoming power	55/60	65/70	70/75
Temperature Stability	pm/°C	10	10	10

¹ CleanLine FS Only. Throughput specifications do not include isolator or fiber coupled versions. Call for specifications on specific wavelengths or configurations.



Features:

- Exceptional ASE suppression – better than -80dB below laser line
- Stable, ultra-narrowband performance – 0.1nm bandwidth, $\Delta\lambda = 10\text{pm}/^\circ\text{C}$
- Compact, pre-aligned packaging – free space or isolated/fiber coupled configurations
- Fast, easy alignment and integration with SureLock LM lasers and XLF Series Raman Filter Systems
- Convenient built-in alignment irises and wavelength fine-tuning adjustment (FS version)

Applications:

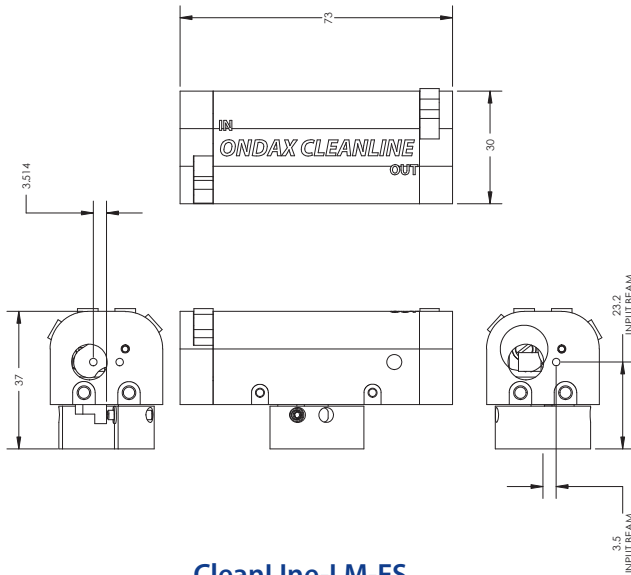
- Ultra-low frequency Raman spectroscopy
- High resolution metrology/spectroscopy

Exceptional Suppression of ASE Light

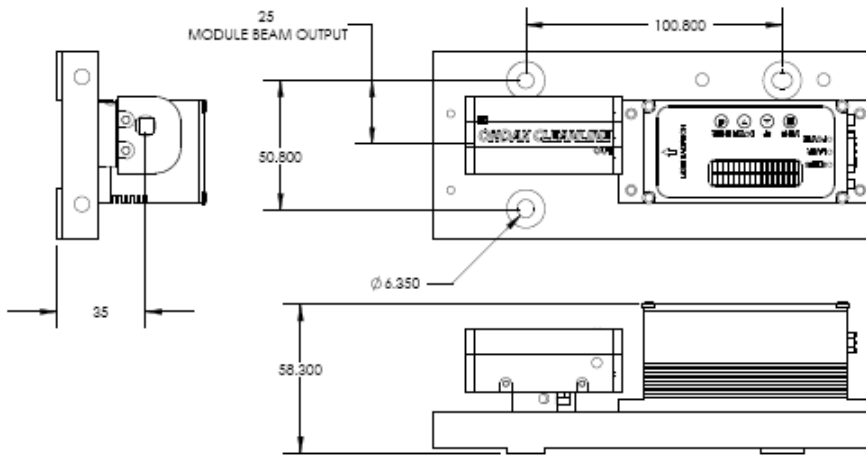
Adding a CleanLine™ ASE Filter System conserves up to 80% of the single frequency line, while reducing ASE noise to less than -80dB. The resulting beam is perfectly matched to Ondax SureBlock™ Notch and XLF-Series ultra-narrow band filters and filter systems.

Mechanical Drawings

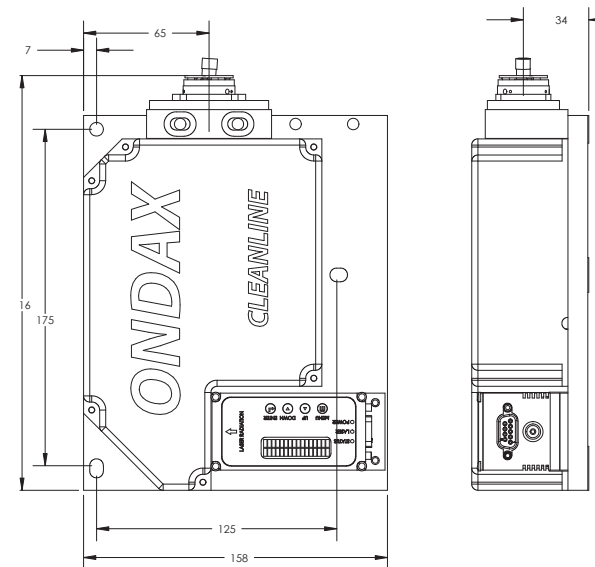
CleanLine-FS



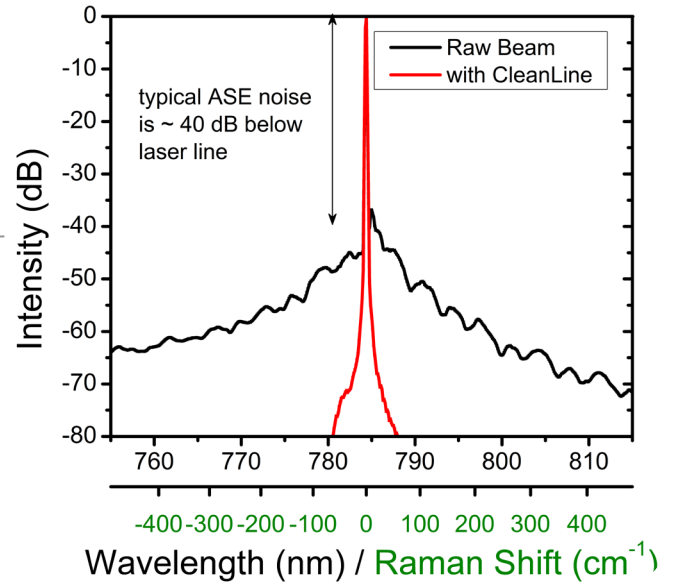
CleanLine-LM-FS



CleanLine-LM-FC



*Dimensions in millimeters



Example ASE reduction on SureLock 785nm laser module.
CleanLine reduces residual ASE noise to less than -80dB

Ordering Information

CleanLine-FS- $\lambda\lambda\lambda.\lambda$

$\lambda\lambda\lambda.\lambda$ = Wavelength (nm)

CleanLine-LM- $\lambda\lambda\lambda.\lambda$ -AA

$\lambda\lambda\lambda.\lambda$ = Wavelength (nm)

AA = Output option:

FS=Free Space, IS=Free Space+Isolator, FC = FC/PC, SM = SMA, AP = FC/APC

