

LLTF Contrast

Tunable high contrast single line filter

- Single channel tunable band-pass filter
- Exceptional out-of-band suppression
- Narrow line-width and high resolution
- Ultra-wideband tuning range across the UV-Visible-NIR range
- High degree of pointing stability
- Plug-and-play operation



The LLTF Contrast is a continuously tunable high-resolution bandpass filter that effectively converts a NKT Photonics' supercontinuum source into a widely tunable picoseconds laser. The filter transmits, with high efficiency, a single laser line while blocking unwanted lines with excellent out-of-band suppression.

The LLTF Contrast is a non-dispersive filter maintaining the intrinsic single-mode beam quality of the supercontinuum laser enabling a wide range of applications. With two wavelength tuning options, Visible and NIR, the full spectrum of the supercontinuum can be covered.

The LLTF Contrast is compatible with all NKT Photonics Supercontinuum lasers and is fully plug-and-play – adapting directly to the supercontinuum output collimator.

Control is via USB 2.0 and intuitive Graphical User Interface

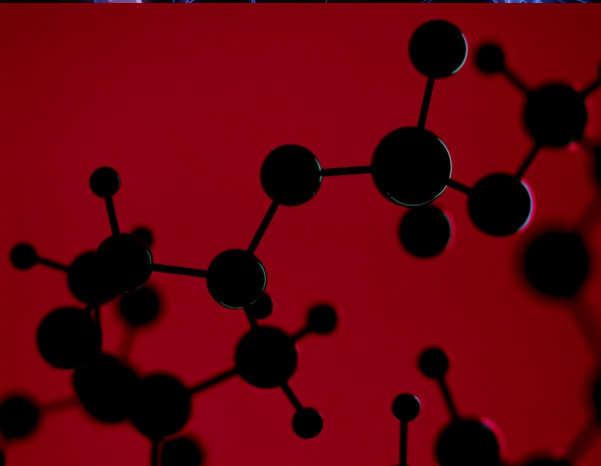
The output of the LLTF Contrast is compatible with SuperK CONNECT and SuperK Fiber deliveries (recommend FD7 for VIS and FD8 for SWIR) .

Models

	Wavelength Range	Spectral Bandwidth	Max. Power
LLTF Contrast VIS HP8	400-1000 nm	<2.5 nm	8 W
LLTF Contrast SWIR HP8	1000-2300 nm	<5 nm	8 W
LLTF Contrast VIS HP20	400-1000 nm	<2.5 nm	20 W
LLTF Contrast SWIR HP20	1000-2300 nm	<5 nm	20 W

Applications

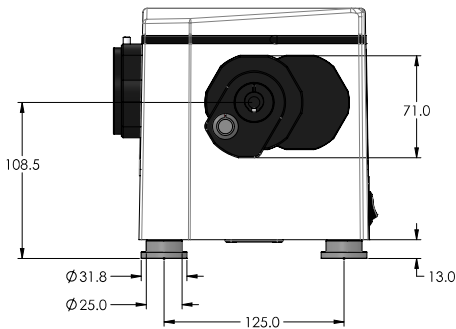
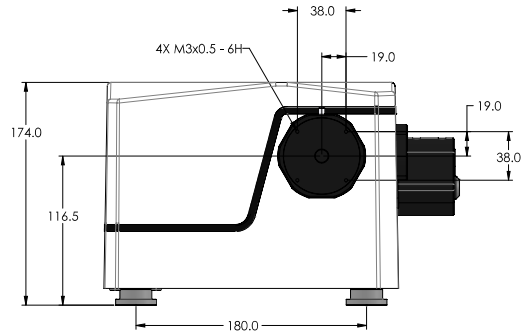
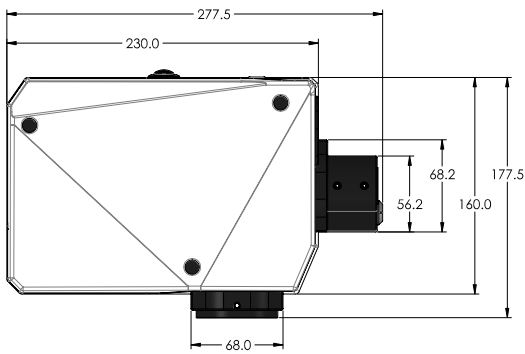
- Fluorescence
- Fluorescence excitation and lifetime measurement
- Raman Spectroscopy
- Flow Cytometry



Specifications

Optical

Tunable Wavelength Range	400 - 1000 nm	1000 – 2300 nm
Channel Spectral Bandwidth (FWHM)	1.0 - 2.5 nm	2.0 - 5.0 nm
Out of Band suppression	60 dB @ ±40 nm	60 dB @ ±80 nm
Typical Transmission Efficiency	65%	
Optical Density (OD)	> OD6 (measured at 1064 nm)	
Damage Threshold	< 5 GW/cm ² peak power @ 1064 nm, 8 ns	
Input Aperture Diameter	5 mm	
Input Beam Divergence Requirement	< 0.45 mrad	
Wavelength Resolution (Relative)	FWHM / 8	
Pointing Stability	< 1 mm lateral displacement @ 1 m from filter	
Scanning speed (multiple step)	35 ms stabilization time for 0.1 nm step 45 ms stabilization time for 0.2 nm step 55 ms stabilization time for 1 nm step 60 ms stabilization time for 2 nm step 65 ms stabilization time for 5 nm step 70 ms stabilization time for 10 nm step	
Interface	Graphical User Interface via USB 2.0 (optional SDK)	
Interlock	Integrated	
Dimensions (W x L x H mm)	172 x 278 x 174	



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All Fianium-branded products are produced under the UK quality management system certified in accordance with the ISO 9001:2008 standard.

