

## Lumen 1600-LED Fluorescence Illumination System

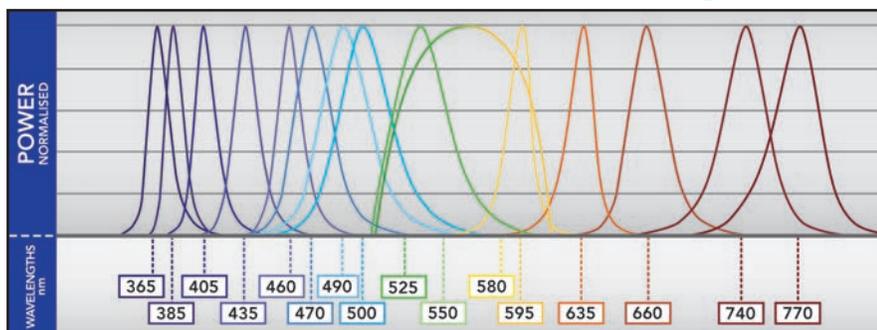


The new Lumen 1600-LED is Prior Scientific's latest addition to their wide range of illumination products for microscopy.

The Lumen 1600-LED unit offers:

- 16 selectable wavelengths
  - Long lifetime (25,000 hours)
  - Individual control of LED wavelengths
  - Rapid switching between LED wavelengths enables capture of high speed events
  - TTL and USB interface with imaging packages
  - Advanced control options allow the rapid adjustment of intensity of each LED
  - Compatible with all single and multi band filter sets
  - Excitation filters can be fitted in optical path for controlled switching with no moving parts
  - Analog input for dynamic intensity control
  - Multiple pre-set configurations are possible; allowing multiple users to quickly select their optimal wavelengths
  - Fits directly to most microscopes
  - Easy to use - no training required
- Environmentally friendly:
- No Mercury
  - No special disposal regulation

### Lumen 1600-LED Performance Spectrum



## Ordering Information

Part Number	Description
L1600LC2	Lumen 1600-LED unit, manual control pod, power supply, 2 meter light guide and collimator for Leica microscope
L1600NI2	Lumen 1600-LED unit, manual control pod, power supply, 2 meter light guide and collimator for Nikon microscope
L1600OL2	Lumen 1600-LED unit, manual control pod, power supply, 2 meter light guide and collimator for Olympus microscope
L1600ZS2	Lumen 1600-LED unit, manual control pod, power supply, 2 meter light guide and collimator for Zeiss microscope

## Lumen 1600-LED Fluorescence Illumination System

### Specifications

<b>Lumen 1600-LED System</b>	Main unit with complete set of wavelengths, dual function manual control pod, power supply and block, USB cable						
<b>Light Delivery</b>	Single liquid light guide or fiber options						
<b>Collimating Optics</b>	Range of collimating optics and adaptors to fit most fluorescence microscopes						
<b>LED Wavelengths</b>	Wavelengths are divided across four channels with each channel having individual control. Power measured at sample plane.						
CHANNEL 1		CHANNEL 2		CHANNEL 3		CHANNEL 4	
Wavelength (nm)	FWHM (nm)	Wavelength (nm)	FWHM (nm)	Wavelength (nm)	FWHM (nm)	Wavelength (nm)	FWHM (nm)
365	12	460	19	525	34	635	16
385	11	470	20	550	85	660	21
405	18	490	32	580	85	740	29
435	16	500	29	595	15	770	28

Note wavelength settings 550nm and 580nm use single broad, high intensity peak (see spectrum graph).

### Control and Interface

<b>Manual:</b>	Dual function manual control pod for White mode or advanced mode.
<b>Remote:</b>	Via USB for independent on/off and intensity control of each channel. Triggering speed <1ms. Via 4 TTL inputs for independent on/off control of each channel. Triggering speed <20us. Via single TTL for on/off control of manual or software selected channels. Via 4 TTL analog inputs 1-10V, 0-300kHz for dynamic control of intensity from external analog signals.
<b>Synch Out:</b>	4 TTL outputs for each channel - active high 1 TTL output for any channel - active high
<b>Programmable</b>	4 TTL outputs for on/off control of peripherals (transmitted light sources, stages, etc.)
<b>Interface</b>	4 analog outputs for intensity control of peripherals (can be programmed to mirror LED intensities for channel control) 0-10V full scale.
<b>Function Generator</b>	Internally generated sine, pulse and ramps for each channel programmed via pod.
<b>Connectivity</b>	USB (B type) for PC connection. All other TTL and analog inputs/outputs via 25 way 'D-type' female connector (optional rear mounting expansion box available for BNC connectivity)
<b>Imaging Software</b>	Compatible with most imaging software packages

### Dimensions

<b>Main Unit</b>	150mm(w) x 220mm(d) x 260mm(h) - Weight 3.5kg
<b>Control Pod</b>	154mm(w) x 135mm(d) x 40mm(h) - Weight 0.95kg
<b>Power Supply</b>	164mm(w) x 64mm(d) x 35mm(h) - Weight 0.58kg

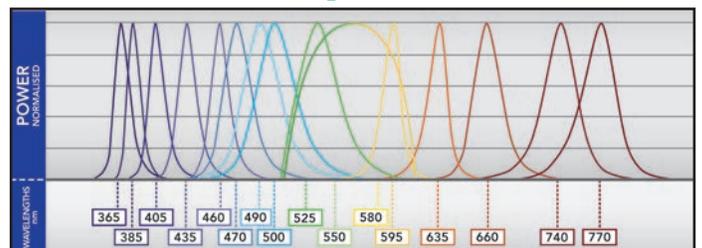
### Power

**Power Requirements** 110-240V AC 50/60Hz, 2.5A

### Available Accessories

Product Description
Replacement 2 meter liquid light guide
Replacement 3 meter liquid light guide
Rear mounted expansion box for BNC/TTL
Excitation filter holder set - 4 filters included

### Performance Spectrum



**PRIOR**  
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