



# X-Light Confocal System



## Spinning Disk with Solid State Light Source

The CrEST X-Light represents an evolutionary improved Nipkow spinning disk confocal scanner coupled with modern high intensity multi-wavelength solid state illumination sources. The result is affordable confocal imaging with access to numerous excitation wavelengths with easy software control. The X-Light is an ideal instrument for use with EMCCD detectors and can be retrofitted to existing microscope setups, making it a flexible and cost-effective confocal solution.

### Flexible Design for various experiments

The X-Light is a 10,000 RPM spinning disk with 2 pinhole patterns on the disk, allowing users to select the appropriate pinhole size to complement the objective lens numerical aperture or experiment protocol used.

### Motorized Components for automated acquisition

A motorized bypass mode, dichroic mirror, and pinhole size selector make the X-light easy to automate for a variety of experiments.

### Long-life, bright light source

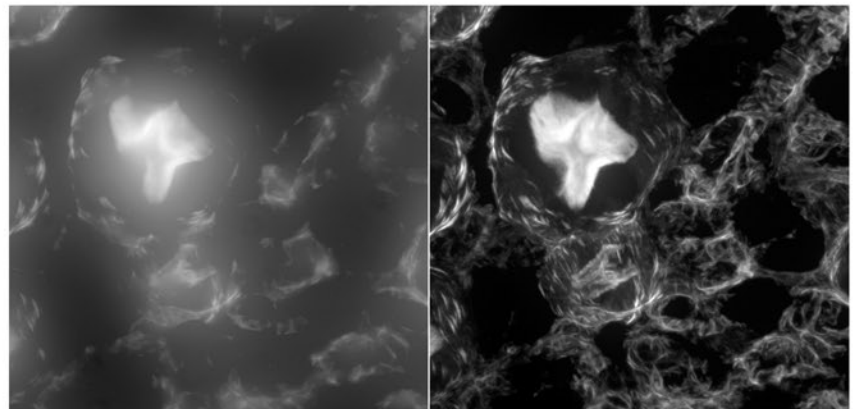
Utilizing a solid state or LED based illumination, the X-light supports a wide array of excitation wavelengths with very long lifetimes. Illumination input to the X-light is multimode, producing flat, even illumination in the field-of-view. These light sources are fast switching for dynamic multichannel experiments, while still maintaining a very low cost to own and maintain.

### Great Upgrade for existing systems

The X-Light is a cost-effective upgrade path for existing widefield imaging setups, offering users confocal imaging with the capability for bypass at any time for widefield or brightfield imaging. It is ideal for inverted microscope stands.

### Easy to Use

An NIS-Elements plug-in for the X-Light makes it a very easy to learn and use device for imaging. Result data can further be deconvolved with NIS-Elements 3D deconvolution (optional), with specific algorithms for the X-Light's result point spread function. The X-Light is compatible with multidimensional acquisition, large image XY stitching applications, well plate scanning (HCA), and can be integrated on multimode systems to share a microscope stand with point scanners or super resolution systems.



Kidney section maximum intensity projection, 60x 1.4 acquired with 6.45um pixel CCD camera  
Left Image: Bypass mode  
Right Image: X-Light 70um pinhole

To learn more about the CrEST X-Light, contact your local Nikon representative, call 1-800-52-NIKON, or email [nikoninstruments@nikon.net](mailto:nikoninstruments@nikon.net) or visit [www.nikoninstruments.com](http://www.nikoninstruments.com)

# Specifications

## CrEST X-Light Spinning Disk System

### Hardware

10,000 RPM Nipkow disk with 2 separate pinhole patterns (motorized, selectable): 70um and 40um

3 Position motorized first dichroic mirror; size is standard Ti microscope cube style

USB Electronic interface for motorized component controls; push button controls on scan unit

4 position 25mm barrier filter changer (can also mount 3rd party motorized filterwheel)

C-Mount camera connection

### Light Source

(option) Lumencor SpectraX Solid State Light source: 7 wavelengths via quartz fiber input

(option) Lumen Dynamics XLED LED light source: up to 4 wavelengths via quartz fiber input

A quartz light guide is required for the X-Light

### Performance

10,000 RPM disk allows for short exposure times (e.g., 50FPS)

Flat, even illumination in the field of view by multimode solid state illumination input

Illumination devices support hardware triggering for fast multichannel acquisition experiments

Superb rejection of out-of-focus light and good emission transmission

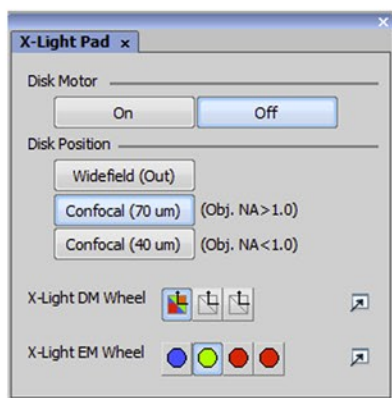
Motorized components allow for automated multidimensional experiments

Quick and easy confocal imaging; bypass mode when not needed

### Software

NIS-Elements Advanced Research (Ar) or High Content (HC)

NIS-Elements dedicated Graphic User Interface for X-Light included with filterwheel control plugin



NIS-Elements User Interface for X-Light



X-Light is manufactured by Crisel Instruments Company based in Rome, Italy specializing in the design of Electro-optical products for microscopy.

