

# X-Cite®

Fluorescence Illumination • In Control

## X-Cite 120LED Illumination System

Advanced yet simple.  
Think of the potential.

Performance. Precision. Reliability.

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High power, broad-spectrum fluorescence excitation

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Exceptional field uniformity at the specimen

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Instant ON/OFF without mechanical shuttering

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Ergonomic manual controller and built-in USB interface

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Long-life, zero maintenance technology

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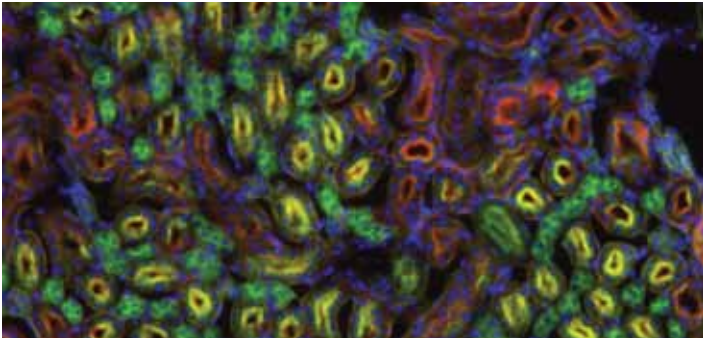
Quiet, vibration-free thermal management

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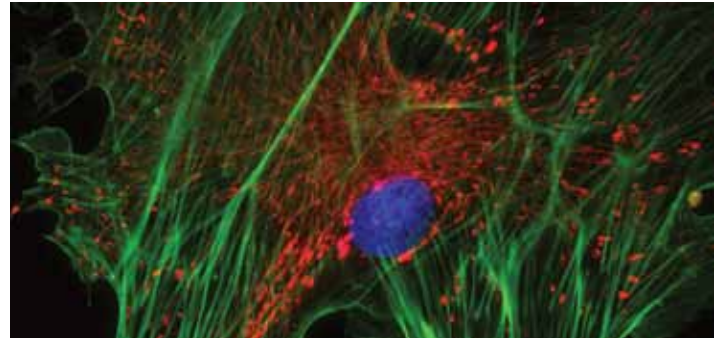


[www.excelitas.com](http://www.excelitas.com)

**EXCELITAS**  
TECHNOLOGIES®



Mouse kidney section stained with DAPI, Alexa Fluor® 488 WGA and Alexa Fluor® 568 phalloidin.



BPAE cells labeled with MitoTracker® Red CMXRos, Alexa Fluor 488 phalloidin and DAPI.

**X-Cite® 120LED represents everything you expect from X-Cite, plus everything you ever wanted in a light source – the superior optical performance of the X-Cite 120 combined with the mercury-free benefits of long-life LED technology. No compromise required.**

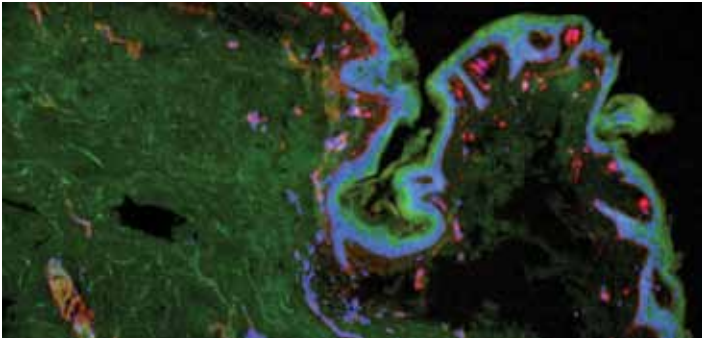
### Simple and Intuitive

The X-Cite 120LED redefines ease and convenience in fluorescence excitation. Designed with intuitive controls and no bulbs or modules to install, set-up and operation has never been simpler. With LEDs rated to 25,000 hours and the elimination of consumable components, the X-Cite 120LED lets researchers focus on their experiments instead of equipment maintenance.

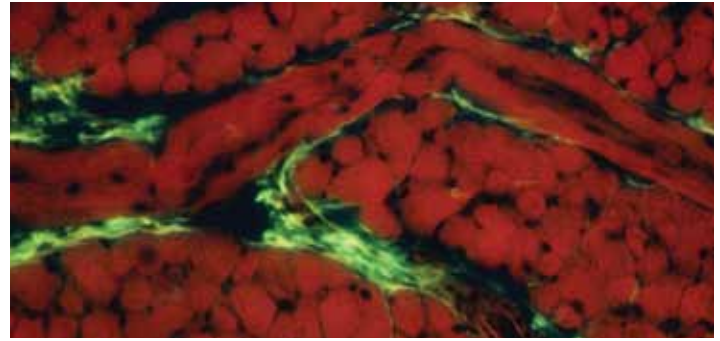
### Versatile

X-Cite 120LED is the ideal mercury-free choice for typical fluorescence imaging applications. The X-Cite 120LED provides high-power, broad-spectrum fluorescence excitation from 370-700nm, catering to a wide range of popular fluorophores and fluorescent proteins. Highly-engineered direct coupling optics ensure bright, uniform illumination on microscopes from all major manufacturers.





Skin section stained with Hoechst, Alexa Fluor 488 F-Actin, Cy3 Collagen IV.



Tongue autofluorescence.

## Direct Coupling Without Vibration

The innovative thermal management design of the X-Cite 120LED allows direct coupling to the microscope for maximum power without adding mechanical vibration. Electronic shuttering provides sub-millisecond operation while avoiding the vibration and failure risk of mechanical shutters.

## Electronic Shutter and Silent Thermal Management

Fanless, high output LED head design and lack of shutter noise make for virtually silent operation, providing an optimal work environment for microscopists, while at the same time allowing for maximum precision in vibration-sensitive imaging experiments.

## Multiple Control Options for Maximum Flexibility

X-Cite 120LED offers complete automation for multi-day time-lapse experiments and simple ergonomic manual control via speedDIAL. Take full advantage of LED instant ON/OFF capability to limit photobleaching and phototoxicity with ultra-fast PC control or TTL triggering. X-Cite 120LED can be driven by commercial imaging software, and an SDK is available for developing customized control solutions.

## Ergonomic Fingertip Control

X-Cite 120LED's ergonomic speedDIAL can be placed where it is most comfortable for individual users. With a large speed-sensitive intensity dial that doubles as an ON/OFF button, controlling illumination is quick and intuitive. Always know the current intensity setting regardless of room lighting conditions via speedDIAL's backlit display. Quickly jump to a favorite intensity setting with a double-tap on speedDIAL.



## Ready When You Are!

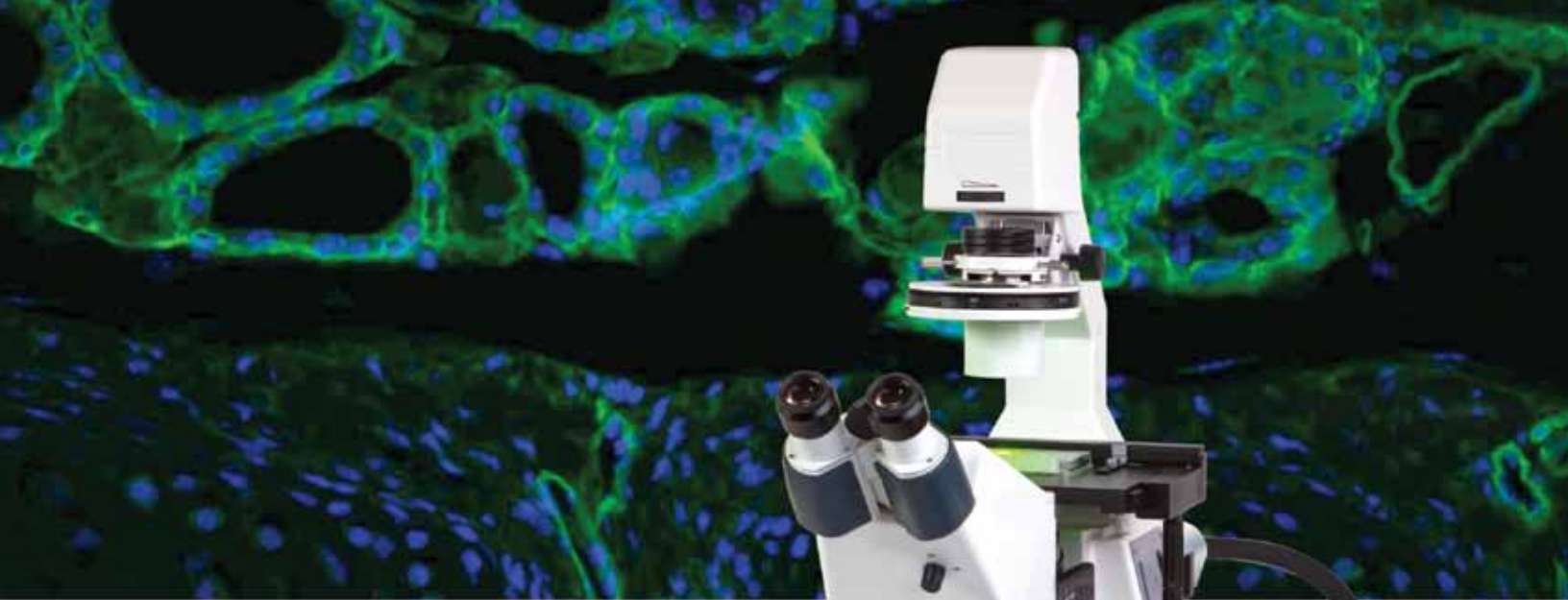
With instant-on capability, X-Cite 120LED is ready to use within seconds, giving researchers the freedom to set the schedule. Whether fluorescence is required occasionally, daily or continuously, X-Cite 120LED will be ready.

“ The X-Cite 120LED provides accurate FRET measurements and works well with all of our fluorophores. We find it bright, uniform and easy to use. ”

Dr. Ammasi Periasamy

W.M. Keck Center for Cellular Imaging  
University of Virginia, USA





Trachea section stained with Hoechst and Alexa Fluor 488 laminin.

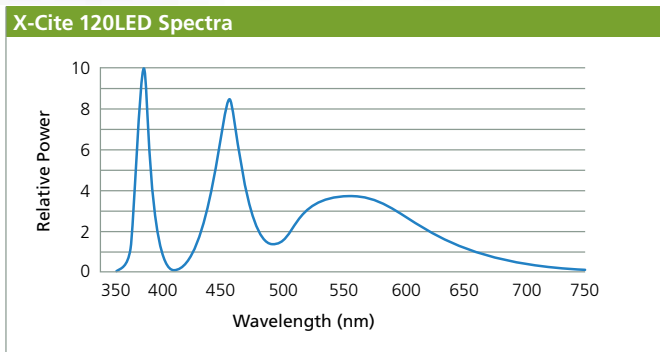
### X-Cite 120LED System includes:

- X-Cite 120LED Head
- X-Cite 120LED powerCUBE
- X-Cite 120LED speedDIAL
- Your choice of microscope flange
- Accessory kit (hex key, manual/driver disk, quick start guide, USB cable, power cord)



### TECHNICAL SPECIFICATIONS • X-Cite 120LED

| Wavelength Range          | 370-700nm  |              |                |
|---------------------------|--|--------------|----------------|
| Power Supply              | Universal input 100-240VAC, 50/60Hz  |              |                |
| Power Consumption         | 230W   |              |                |
| LED ON/OFF Response Times | 50µs TTL<br>1ms USB  |              |                |
| Control Options           | Manual – speedDIAL (1% increments)<br>TTL compatible – BNC input<br>RS-232 commands (SDK available)<br>USB |              |                |
|                           | powerCUBE  | LED Head     | speedDIAL      |
| Height                    | 213mm (8.4")   | 116mm (4.6") | 59mm (2.3")    |
| Width                     | 173mm (6.8")   | 90mm (3.5")  | 80mm (3.1")    |
| Depth                     | 260mm (10.2")  | 166mm (6.5") | 112mm (4.4")   |
| Weight                    | 4.8kg (10.6lbs)  |              | 0.3kg (0.7lbs) |
| Certifications            | CE marked; certified to IEC, Canadian and US standards; RoHS compliant                                     |              |                |
| Warranty                  | LEDs – 25,000 hours (or 3 years); all other X-Cite 120LED components 1 year, parts and labor               |              |                |



Images courtesy of: cover – Dr. Scott Olenych, Carl Zeiss Microscopy; inside – James Jonkman, University Health Network, Toronto and Dr. Kavita Aswani, Excelitas Technologies Corp.; back – Dr. Kavita Aswani, Excelitas Technologies Corp.



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