X-Cite®
Fluorescence Illumination • In Control

X-Cite mini+™

Compact, High Power LED Illumination
Performance. Value. Reliability.

Compact, broadband LED light source for fluorescence imaging applications
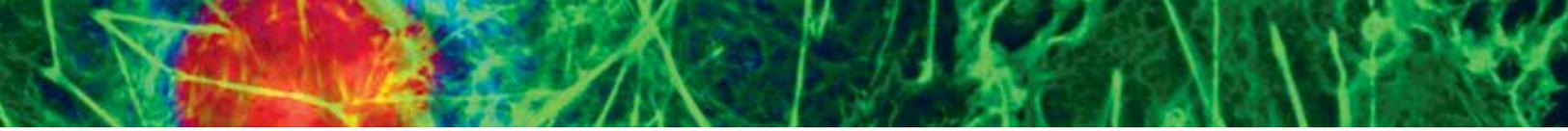
Direct-coupled, high power illumination

Quiet operation

Zero maintenance and mercury-free

X-Cite® mini+

EXCELITAS
TECHNOLOGIES®

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X-Cite mini+™ is the new go-to white light LED light source for fluorescence imaging applications. High power performance, compact size and air-cooled, the X-Cite mini+ is the perfect choice for clinical labs and facilities looking for a cost-effective solution.

Powerful

Improved LED technology allows the X-Cite mini+ to provide more power to the sample plane than our previous direct-coupled systems. With one compact, air-cooled system, the X-Cite mini+ provides the output power of higher-end illuminators at a fraction of the cost.
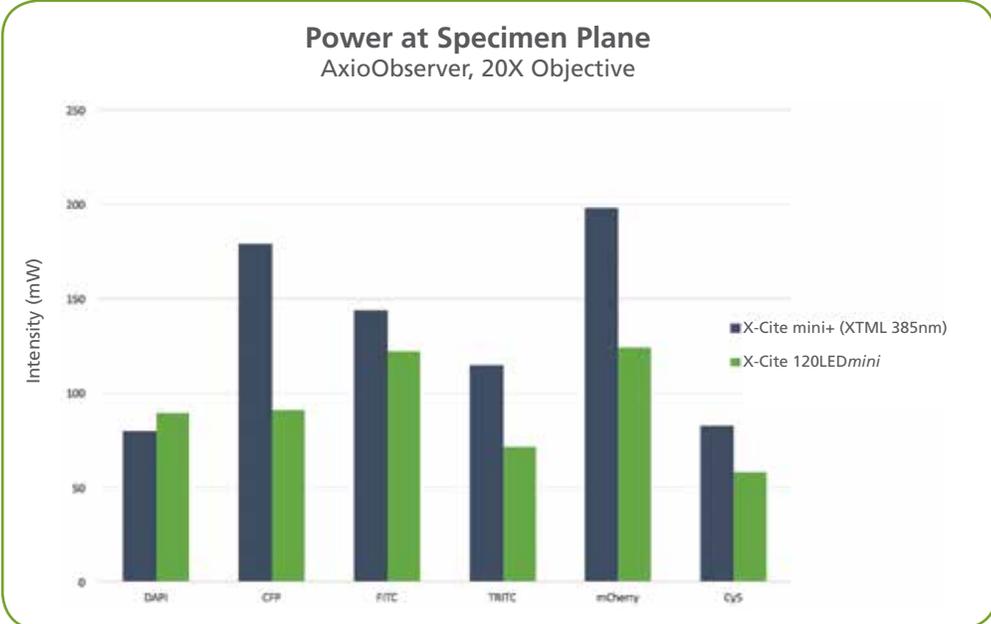
Built-in Control Options

The X-Cite mini+ includes manual fingertip control with speedDIAL, hands-free operation with a foot pedal, as well as USB and TTL inputs for automated applications.

Flexible UV Options

The X-Cite mini+ leverages the latest industry advancements to offer two choices of UV excitation. The XTML model features a 385nm LED, which matches the UV output of its predecessor, for a simple drop-in replacement solution. The XTMS model includes a powerful 365nm LED compatible with standard narrow DAPI filter sets, making it an ideal replacement for mercury sources. For those who never or rarely need UV excitation, X-Cite mini+ can be set to "UV off" with a few clicks of speedDIAL.

Power at Specimen Plane
AxioObserver, 20X Objective

- X-Cite mini+ (XTML 385nm)
- X-Cite 120LED*mini*

Power comparison at specimen plane using standard filter cubes. X-Cite mini+ exceeds the performance of X-Cite 120LED*mini* across the visible spectrum.

Zero Maintenance Costs

X-Cite mini+ is a direct-coupled LED system with a 20,000 hour warranty. This means no lamps to change, no mercury disposal fees, and no light guides to replace - ever!

Low Energy Consumption

With energy-efficient LEDs and the advantage of instant ON/OFF to minimize power consumption, the X-Cite mini+ fits into any research lab's "go-green" strategy.

Potential Cost and Energy Savings with X-Cite mini+

Table 1: Cost of Ownership (per 20,000 hours of "ON time")

	HBO	X-Cite 120Q	X-Cite mini+
Replacement Lamps	100	10	-
Lamp Costs	$15,000	$6,250	-
Replacement Light Guides	-	5	-
Light Guide Costs	-	$1,975	-
Bulb Disposal ($5/bulb)[1]	$500	$50	-
Maintenance Costs (bulb, $20/hr)[2]	$1,000	$17	-
TOTAL	$16,500	$8,292	$0

Notes:
1. Mercury-Free Microscopy white paper www.mygreenlab.org.
2. Assumes 30 min to change/align HBO lamp, 5 min for X-Cite 120Q.
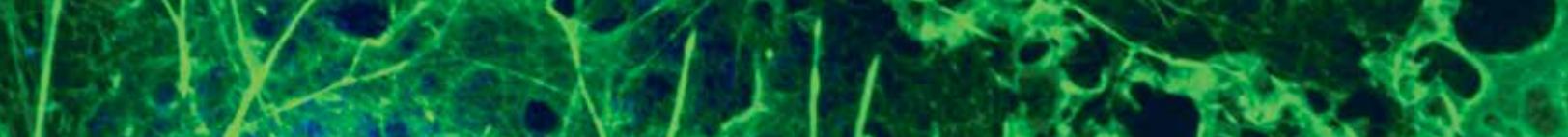
Table 2: Energy Consumption (per day)

	HBO	X-Cite 120Q	X-Cite mini+
ON Time[1]	8 Hours	8 Hours	1 Hour
Lamp Lifetime Used	4%	0.4%	0.005%
Energy Used[2]	1.24 kWh	1.92 kWh	2.4kWh
Electricity Cost (per day) ($0.15/kWh)[3]	$0.19	$0.29	$0.04
Electricity Cost (per year)[4]	$46.50	$72.00	$9.00

Notes:
1. Assumes 8 hour day, 4x15 min imaging sessions. Arch lamps left on for the day and LEDs on continuously during each session.
2. Calculated based on published technical specifications.
3. Typical rate. Actual rates will vary by region and/or time of day.
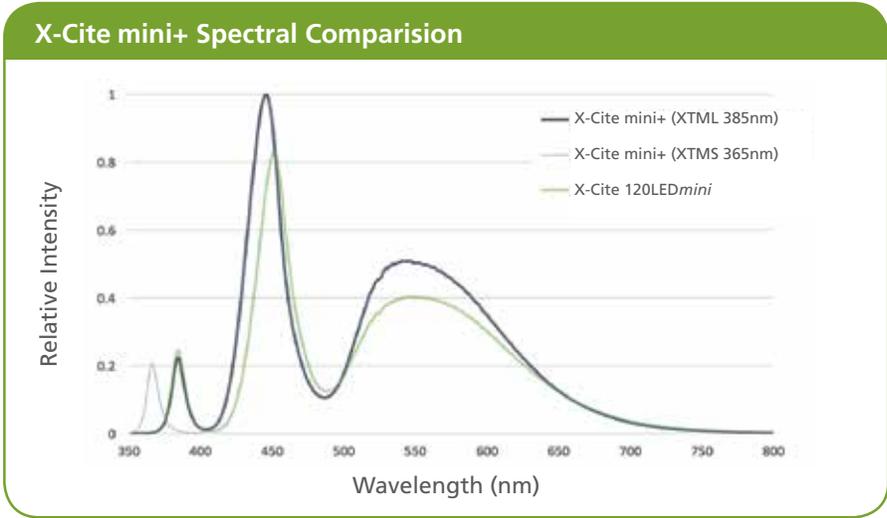4. Assumes a 5 day week x 50 weeks.

No lamps to change, no mercury disposal fees, and no light guides to replace - ever!

Features	Benefits
LED Technology	Efficiency, stability, instant ON/OFF and long lifetime
White Light Excitation	Excitation of commonly used fluorophores such as DAPI, CFP, GFP/FITC, YFP, mCherry/Texas Red, and Cy5
Direct Coupled	High power excitation
Multiple Control Options	Simple operation through USB, TTL or speedDIAL
Small Footprint	Minimal space requirement; less bench top real estate required
Optimized Thermal Management	Maximum LED output, lifetime, stability and reliability
X-Cite Coupling Optics	Efficient optical output and uniformity with highest performing coupling optics

Technical Specifications	
Includes	X-Cite mini+™ Head, miniCube, speedDIAL, microscope flange, accessory kit
Wavelength Range	Model: XTMS: 360-700nm Model: XTML: 380-700nm
External Power Supply	Universal input 100-240VAC, 50/60Hz
Current	2.4-1.2A
LED ON/OFF Response Times	100µs TTL / 1ms USB
Control Options	ON/OFF - TTL compatible, speedDIAL, RS-232 commands (SDK available), USB
I/O Connections	BNC input, USB (B-type), 3.5mm stereo plug
Dimensions - HEAD	100mm x 135mm x 110mm (W x H x D)
Dimensions - CONTROLLER	180mm x 110mm x 230mm (W x H x D)
Dimensions - speedDIAL	80mm x 59mm x 112mm (W x H x D)
Weight	3.4 kg (7.5 lb)
Certifications	RoHS, CE
Warranty	LEDs – 20,000 hours, All other X-Cite mini+ components - 1 year, parts and labor

X-Cite mini+ Spectral Comparision

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Microscope Experts since 1979

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