X-Cite TETREM™

Simple, Powerful, Versatile.

- LED excitation from DAPI to Cy5
- 4 wavelengths with independent channel control
- Fast color-switching
- Control via smartDIAL™, USB, TTL, Analog
- Compact and budget-friendly

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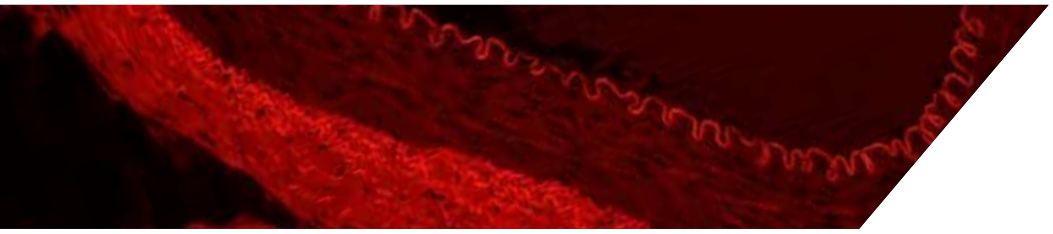
X-Cite TETREM allows for individual or simultaneous operation of its four LEDs



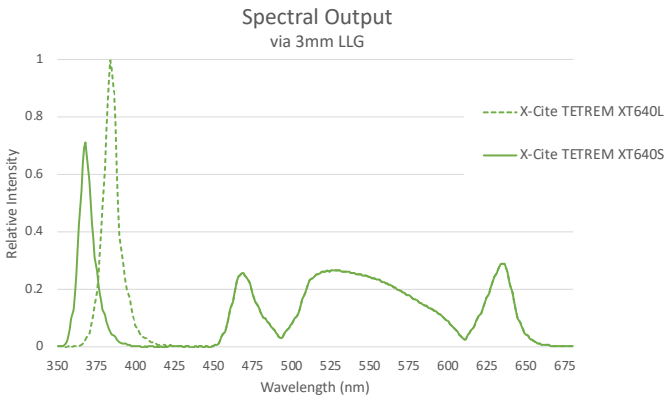
POWER WHERE YOU NEED IT

The X-Cite TETREM™ covers the four key spectral bands required to excite the most popular dyes used in fluorescence microscopy - DAPI, FITC, mCherry/TRITC and Cy5. As with all X-Cite® LED systems, there are two different UV LED wavelengths available – 365 nm and 385 nm models – to accommodate your DAPI excitation filter preference.

X-Cite TETREM allows for individual or simultaneous operation of its four LEDs, making it well-suited for use with both multi-band and regular filter cubes. Individual LED control will minimize bleed-through with multi-band filter cubes and can provide UV-free illumination for reflected light applications. Whichever method is used, intensity levels for each channel can be finely tuned to optimize excitation of fluorophores or create your perfect white color balance.

With a focus on the key fluorophores and the addition of individual LED control, X-Cite TETREM is a versatile illuminator. It is a great choice for routine applications and an ideal way to upgrade a microscope.

X-Cite TETREM Spectral Output

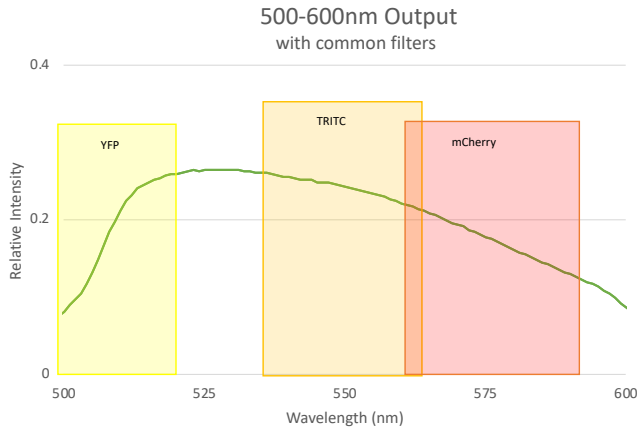


BRIGHT & COMPACT GREEN EXCITATION

Advances in technology are allowing for 500-600 nm LEDs that are more powerful than ever. X-Cite TETREM is the first X-Cite illuminator to take advantage of this technology, resulting in a simpler, more compact design that does not compromise on power in the so-called 'Green Gap'.

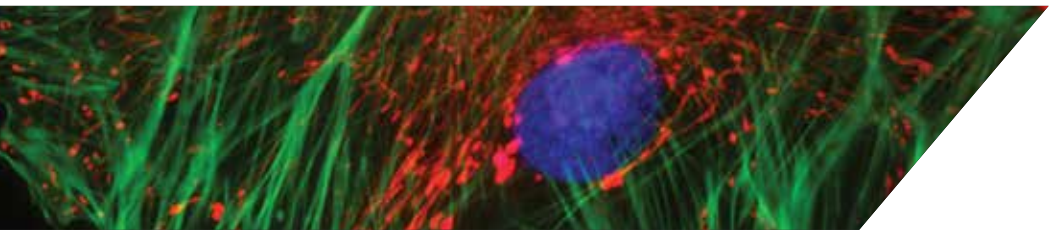
X-Cite TETREM provides illumination over the whole 500-600 nm range, allowing excitation of YFP, TRITC, RFP or mCherry using filters in the microscope's turret. Alternatively, this broad green spectrum can be narrowed by inserting an excitation filter directly in front of the LED.

X-Cite TETREM Green LED Output



UNIFORMITY and STABILITY

The X-Cite TETREM delivers powerful, uniform light to your optical train using our trusted X-Cite liquid light guides and optimized microscope adaptors. Efficient thermal management provides stable excitation to your entire sample, delivering the perfect light for accurate imaging and the best possible experimental data.



FAST COLOR-SWITCHING and COMPUTER CONTROL

Switch between any of X-Cite TETREM's four colors in microseconds. Analog and TTL capabilities allow for intensity control and fast ON/OFF times to enable high-throughput imaging.

Like all X-Cite LED systems, the X-Cite TETREM can be computer controlled via USB, X-Cite Control Panel, and third-party software. SDK is available upon request for custom control applications.

INTUITIVE CONTROL WITH smartDIAL™

X-Cite TETREM features the X-Cite smartDIAL, our new intuitive manual controller. This sleek device takes the original speedDIAL features that customers love, and expands them to a four-channel controller.

- Large buttons located in each corner of the controller and a central dial allow ON/OFF and intensity control of each LED - without needing to look away from the microscope
- Illuminated channel numbers change color when an LED is on, confirming operation – particularly helpful for UV/DAPI
- An OLED display in the central dial communicates wavelength/ intensity information for all four channels, plus allows navigation of the settings and service menus
- Configure up to four user/experiment profiles – define LED intensity settings and channel number colors specific to users and/or frequently used protocols

LOW MAINTENANCE

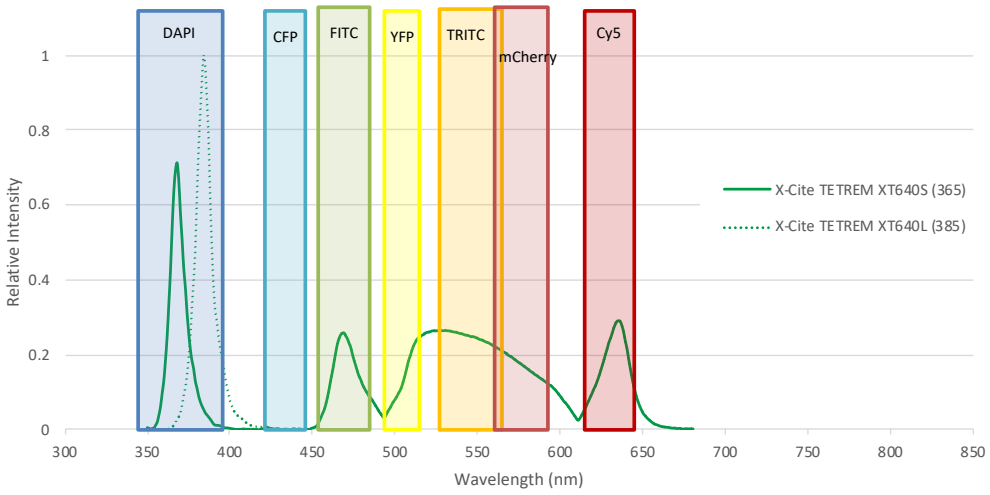
With no bulbs to stock or replace, labs can keep costs down while keeping their imaging systems up and running without interruption. As the LEDs can be triggered ON only when needed for imaging, the light guides last longer compared to lamp systems and will not need to be replaced as frequently.

Along with the known benefits of LED technology – high power, long lifetimes, mercury-free operation, virtually zero maintenance, and instant ON/OFF capabilities – the X-Cite TETREM provides four powerful, fast-switching LEDs to excite the most popular fluorophores in a compact, affordable system that will fit any budget.

TECHNICAL SPECIFICATIONS

	MODEL: XT640S	MODEL: XT640L
Wavelength Range	360-660 nm	380-660 nm
LED Peaks (nm)	365, 475, 555, 635	385, 475, 555, 635
External Power Supply	Universal input 100-240 VAC, 50/60 Hz 1.85A max/115V, 1.0A max/230V	
Power Input to X-Cite Unit	24VDC, 4.0A	
LED ON/OFF Response Times	100 µs TTL / 1 ms USB	
Control Options	smartDIAL ON/OFF - TTL compatible Intensity - Analog RS-232 commands (SDK available), USB	
I/O Connections	Mini DIN plug, 9pos (smartDIAL) USB (B-type) DB25 x 8 BNC (4 x TTL, 4 x Analog)	
Dimensions (W x H x D)	95 mm x 230 mm x 212 mm (3.7" x 9.1" x 8.4")	
Weight	3 kg (6.6 lb)	
Shipping Dimensions	400 mm x 380 mm x 330 mm (16" x 15" x 13")	
Shipping Weight	5.5 kg (12 lb)	
Certifications	CE, UKCA, KC, RoHS	
Warranty	LEDs – 25,000 hours or 3 years All other X-Cite TETREM components – 1 year, parts and labor (excluding LLG)	

X-Cite TETREM Spectra with Excitation Bands



Notes:

- Filter bands shown: 378/52, 438/24, 474/27, 509/22, 554/23, 578/21, 635/18

Enabling the future

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