

LED Light System for Clarifying Fast Biological Phenomena

High-powered

High Stability

Dual wavelengths

Multi-LED Light System LEX9



Applications

GCaMP imaging

Hemodynamic correction using 405nm/460nm alternative illumination

Voltage imaging

Voltage sensitive dyes such as Di-4-ANEPPS, Di-4-ANBDQBS, etc.

Calcium imaging

Calcium ion indicators such as Fluo-4, Rhod-2, Cal-520, etc.

Light Stimulation for Optogenetics

Channelrhodopsin (ChR2)
Halorhodopsin (NpHR)
Arch and Chrimson, etc.

Overview

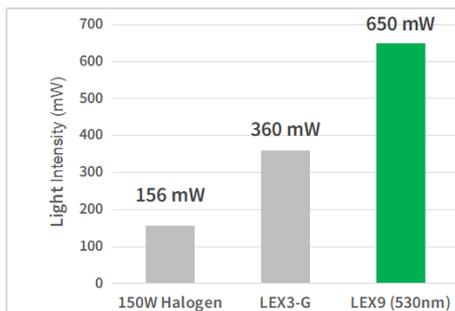
LEX9 is a highly powered and highly stable LED light system. One or two LED units can be installed inside. Two different wavelengths can be used, either simultaneously or alternately.



Main features

High power

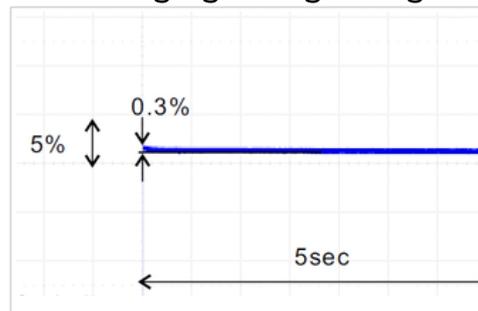
Improve S/N ratio in imaging



LEX9 has a higher output power of more than 4.3 times that of a 150W halogen light and 1.8 times that of our old LED system.

Highly stable

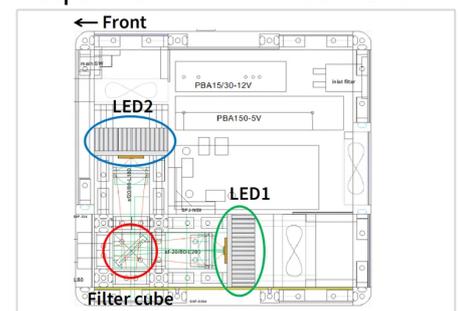
Minimize unnecessary noise when imaging biological signals



Light intensity change in 5 seconds is less than 0.3%.

Dual wavelengths

Two wavelengths can be acquired with one camera



Two LED units can be installed inside LEX9.



Improve S/N ratios in wide-field imaging experiments

Multi-LED Light System LEX9



Additional LED units / Filter cube



LED unit

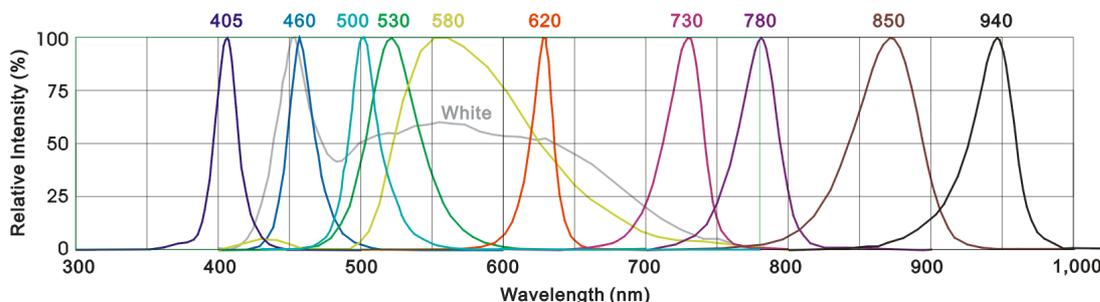
It is possible to purchase additional LED units with different wavelengths. Customers can easily add or replace LED units by themselves



Filter cube

Standard size ϕ 25mm bandpass filters and 25mmx36mm dichroic mirror can be installed in the filter cube, allowing customers to freely and easily replace the fluorescence filters.

Wavelength characteristics



The LED units use LEDs in the visible to near-infrared light range that have higher output than conventional ones, and various wavelengths can be selected to match fluorescent probes.

Specifications

Item	Description
Model	LEX9
Name	High-powered Multi LED Light System LEX9
Center wavelength	405nm/460nm/530nm/580nm/620nm (Option:500nm/730nm/780nm/875nm/940nm)
Number of LEDs that can be installed	2
LED intensity at 100% setting	405nm: 407mW/cm ² 460nm: 1,833mW/cm ² 530nm: 650mW/cm ² 620nm: 1,057mW/cm ²
Drift of light intensity	< 0.3% (5 sec) / < 0.5% (10 min) / < 1.0% (100 min)
Dimensions / Weight	300mm(W) x 350mm(D) x 130mm(H) / 7.3-7.6kg

* Specifications and appearance are subject to change without prior notice due to continuous improvements. * This product is made in Japan. * This product is for research purposes only.

FAQ

Q: Can LEX9 be connected to microscopes?

A: Yes, it is possible to connect LEX9 to microscopes from various companies. Microscope adaptors for Olympus / Nikon / Leica / Zeiss are available.

Q: Can LEX9 be operated with remote control?

A: We also plan to develop an option that allows users to operate the system from a web browser on a smartphone or PC.

Q: Are there anything else required?

A: Fluorescence filters, light guides, and microscope adaptors are sold separately. Switching between two wavelengths requires an external pulse generator or camera system that can output two types of pulse patterns.

Free trial

We offer **free trials** for LEX9. **Please contact us using the contact information below.**

