

## Digital microscopy

# EVOS M5000 Imaging System

## The Invitrogen™ EVOS™ M5000 Imaging System—technical specifications

The EVOS M5000 Imaging System is a digital inverted microscope for 4-color fluorescence, transmitted light, and color imaging.

| Optics                    |  |
|---------------------------|--|
| Imaging modes             | Fluorescence, brightfield, color brightfield, and phase contrast.  |
| Imaging methods           | Single color, multicolor, time-lapse, Z-stacking, and movie capture.   |
| Optical system            | Infinity-corrected optical system; RMS-threaded objectives with 45 mm parfocal distance.   |
| Illumination              | Adjustable-intensity LED cubes (>50,000-hour lifetime) with integrated hard-coated filters.  |
| Light cube capacity       | 4-position chamber for up to 4 fluorescent LED cubes.  |
| Light cubes               | Selection from Invitrogen™ EVOS™ fluorescent LED cubes, including: <ul style="list-style-type: none"> <li>• DAPI (357/447 nm)</li> <li>• GFP (482/524 nm)</li> <li>• RFP (542/593 nm)</li> <li>• Texas Red (585/628 nm)</li> <li>• Cy®5 (635/692 nm)</li> </ul> Motorized LED cube interchange mechanism. Custom LED cubes available on request. |
| Objective capacity        | 5-position manual turret (not automated).  |
| Objectives                | Selection from more than 30 high-quality, long working distance (LWD) and coverslip-corrected (CC) objectives; magnification from 1.25x to 100x.   |
| Condenser                 | 60 mm LWD condenser; 4-position turret with a clear aperture and 3 phase annuli.   |
| Focus mechanism           | Automated focus with sub-micron (0.15 µm) resolution and single-step accuracy.   |
| Camera                    | High-sensitivity 3.2 MP monochrome CMOS camera (2,048 x 1,536 pixels) with 3.45 µm pixel resolution.   |
| Captured images           | 16-bit RAW monochrome: TIFF, PNG (12-bit dynamic range)<br>8-bit color: TIFF, PNG, JPG<br>Movies and time-lapse: AVI, WMV  |
| LCD display               | 18.5-inch high-resolution articulated LCD monitor.   |
| Mechanics                 |  |
| Stage control             | Mechanical   |
| x-axis and y-axis control | Fine positioning control; travel range: 120 x 80 mm with sub-micrometer resolution.  |
| z-axis control            | Automated, motorized z-axis software control.  |
| Inserts                   | Interchangeable inserts accommodate most vessel types and sizes, including slides, multi-well plates, culture flasks, and petri dishes.  |

| Vessels   |  |
|---|--|
| <b>Compatibility</b>  | Microscope and chamber slides<br>Hemocytometers<br>6-, 12-, 24-, 48-, 96-, and 384-well microplates<br>35, 50, 60, and 100 mm petri dishes<br>T-25, T-75, and T-175 flasks<br>Custom vessel configurations available on request.   |
| Software and PC   |  |
| <b>Integrated onboard operating software</b>                    | Autofocus<br>Cell counting<br>Confluence measurements<br>Transfection efficiency measurements<br>Z-stacking with multichannel composite overlay<br>Batch analysis<br>Annotation tool   |
| <b>Invitrogen™ Celleste™ Image Analysis Software (optional)</b> | Functions for counting, segmenting, classifying, and analyzing complex images.<br>Preconfigured analysis templates for common applications and an icon-based, wizard-driven workflow.<br>Modules for 2D and 3D deconvolution, GPU acceleration, 3D rendering, 3D visualization, and 3D analysis. |
| <b>Image saving</b>   | Save images on embedded hard drive, an external USB device, or a local network.  |
| <b>Computer</b>   | Embedded PC with 4 GB RAM.   |
| <b>Storage</b>  | 10 GB SSD or 16 GB USB 3.0 memory stick.   |
| System  |  |
| <b>Output ports</b>   | Power; 4 USB 2.0 ports; 1 USB 3.0 port; 1 display port; 1 RJ45 port.   |
| <b>Networking capability</b>                                    | Connect via the Microsoft™ SMB protocol using an Ethernet cable or the USB 3.0 WiFi dongle (included).   |
| <b>Cloud connectivity</b>                                       | Connect to the Thermo Fisher™ Connect Platform for remote access to images and data via the internet.  |
| <b>Power supply</b>   | 24 V AC adapter with country-specific power cords.   |
| Physical characteristics  |  |
| <b>Dimensions (W x D x H)</b>                                   | 18 x 18 x 23 in. (45.7 x 45.7 x 58.4 cm)   |
| <b>Weight</b>   | 36 lb (16 kg)  |

 Learn more at [thermofisher.com/EVOSM5000](https://thermofisher.com/EVOSM5000)

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