

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"> • DAPI (357/447 nm) • GFP (482/524 nm) • RFP (542/593 nm) • Texas Red™ (585/628 nm) • Cy®5 (635/692 nm) Motorized LED cube interchange mechanism. Custom LED cubes available on request.
Objective capacity	5-position manual turret (not automated)
Objectives	Selection from more than 35 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) 8-bit color: TIFF, PNG, JPG Movies and time-lapse: AVI, WMV
LCD display	18.5-inch high-resolution articulated LCD monitor
Mechanics	
Stage control	Mechanical
Stage tracking	Proprietary tracking functionality of stage locations through software
x-axis and y-axis control	Fine positioning control; travel range: 120 x 80 mm with sub-micron 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	
Compatibility	Microscope and chamber slides Hemocytometers 6-, 12-, 24-, 48-, 96-, and 384-well microplates 35, 50, 60, and 100 mm petri dishes T-25, T-75, and T-175 flasks Custom vessel configurations available on request.
Software and PC	
Integrated onboard operating software	Stage View for tracking of stage locations Pin drop and naming tool Pin find tool Autofocus Cell counting Confluence measurements Transfection efficiency measurements Z-stacking with multichannel composite overlay Batch analysis Annotation tool
Invitrogen™ Celleste™ Image Analysis Software (optional)	Functions for counting, segmenting, classifying, and analyzing complex images Preconfigured analysis templates for common applications and an icon-based, wizard-driven workflow Modules for 2D and 3D deconvolution, GPU acceleration, 3D rendering, 3D visualization, and 3D analysis
Image saving	Save images on embedded hard drive, an external USB device, or a local network
Computer	Embedded PC with 4 GB RAM
Storage	10 GB SSD or 16 GB USB 3.0 memory stick
System	
Output ports	Power; 4 USB 2.0 ports; 1 USB 3.0 port; 1 display port; 1 RJ45 port
Networking capability	Connect via the Microsoft™ SMB protocol using an Ethernet cable or the USB 3.0 WiFi dongle (included)
Cloud connectivity	Connect to the Thermo Fisher™ Connect Platform for remote access to images and data via the internet
Power supply	Universal power supply (12 V, 5 A) and power cord (type B, North America)
Physical characteristics	
Dimensions (W x D x H)	18 x 23 x 18 in (46 x 59 x 46 cm)
Weight	37 lb (17 kg)

 Learn more at thermofisher.com/EVOSM5000

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