

SPECIFICATION MANUAL
EVOS M5000 Imaging System

EVOS M5000 Imaging System

Description

The Invitrogen™ EVOS™ M5000 Cell Imaging System is a fully integrated digital inverted microscope for four-color fluorescence, transmitted-light and color applications.

Manufacturing disclosure

We are the sole manufacturer of the EVOS M5000 Cell Imaging System. The system is sold and serviced only by Thermo Fisher Scientific, Fisher Scientific and authorized distributors.



System highlights

Hardware	
Illumination	LED light cubes (>50,000-hour life per light cube) with adjustable intensity
Contrast methods	Epifluorescence and transmitted light (bright-field and phase-contrast)
Objective turret	5-position control
Fluorescence channels	Simultaneously accommodates up to 4 fluorescent light cubes
Condenser working distance	60 mm
Stage	Mechanical stage with x- and y-axis fine-positioning controls and automated z-axis software controls; Interchangeable vessel holders available
LCD display	an 18.5" high-resolution, articulated LCD monitor
Camera	Highly sensitive 3.2 MP, monochrome CMOS camera (2,048 x 1,536) with 3.45 μm pixel resolution
Output ports	3 USB ports, 1 DVI port (supports direct output to USB and networked storage), Wi-Fi connectivity
Power supply	AC adaptor
Dimensions	(W x D x H) (18 x 18 x 23 in.)
Weight	18.15 kg (40 lb)

Differentiating features of the instrument

- **Camera** - a highly sensitive 3.2 MP monochrome CMOS camera (2048 x 1536) with 3.45 µm pixel resolution. The monochrome camera affords the best sensitivity for detection of faint fluorescence signals and allows quantitative analysis.
- **Optics** - Infinity-corrected optical system; RMS-threaded objectives with 45 mm parfocal distance
- **Objectives** – Wide selection of high-quality, long-working distance (LWD), and coverslip-corrected objectives
- **Color Transmitted Light Imaging** – Patent pending color illumination mode enables rendering of true color in transmitted light, e.g., imaging H&E stained tissue sections.
- **Fluorescence LED Light Cubes** - We invented the light cube that combines a bright, stable and low energy LED light with hard-coated filters and a dichroic mirror to produce a highly sophisticated light engine that allows placement close to the sample and (minimal light loss), immediate startup (no wait), 50,000h life (low total cost) and digital control (better illumination control) compared to halogen bulbs. Hard-coated filter sets have sharper edges and significantly higher transmission efficiencies that typically result in >25% more light transmission than traditional soft-coated filters. Custom cubes are also available upon request.

– Lightcubes	(EX)	(EM)
– DAPI	357/44	447/60
– TagBFP	390/18	447/60
– CFP	445/45	510/42
– GFP	470/22	510/42
– YFP	500/24	524/27
– RFP	531/40	593/40
– Invitrogen Texas Red	585/29	624/40
– Invitrogen Cy5	628/40	692/40
– Invitrogen Cy5.5	655/46	794/16
– Invitrogen Cy7	710/40	775/46
– CFP-YFP	445/45	542/27
– AO	42/46	488LP
– AOred	442/46	628/32

Hardware

- **Vessel compatibility** - The EVOS M5000 Imaging system is compatible with microscope and chamber slides; hemocytometers; 6-, 12-, 24-, 48-, 96-, 384 well microplates; 35-, 50-, 60-, 100 mm petri dishes; T-25, T-75, T-175 flasks, Custom configurations are also available upon request.
- **Motorized Z-axis** – on-screen controls give you the ability to autofocus on coarse and fine modes, set z positions, and perform a z-stack.
- **Motorized fluorescence cube change mechanism** – integrated motor is controlled by onscreen software, that changes filter cubes in seconds to allow for fast and smooth multichannel fluorescence image acquisition
- **Incubation Integration** – the EVOS M5000 is compatible with the Invitrogen Onstage Incubator. For live cell imaging over hours or days, the optional EVOS Onstage Incubator functions as an environmental chamber on top of the microscope stage and is operated seamlessly from within the instrument interface. Through control of temperature, humidity and CO₂ as well as oxygen for normoxic and hypoxic conditions, it is possible to study live cell dynamics over extended periods.
- **Networking capability** - Connection through Windows, server message block (SMB), or wifi network via an Ethernet cable connection
- **WiFi enablement** – included wifi dongle allows for software upgrades with the click of a button
- **Cloud connectivity** - Connection to Thermo Fisher cloud for access to images and data anytime and anywhere

Software

- **Integrated onboard operating software**

- Autofocus
- Z-stacking
- Cell Counting
- Confluence Measurement
- Annotations tool

- **Optional Analysis Software** – Celleste Image Analysis software is powerful, easy-to-use software. Easily count, segment, classify and analyze complex images to create reports that include the parameters and data you need. Utilize automation tools to eliminate repetitive steps and minimize chances of errors or inconsistencies.

- **Image saving** - Once you have finished editing and analysis, save the images and data to the embedded hard-drive, an external USB device or a local network.

Support

- **Technical applications scientists**—Technical applications scientists (TAS) with years of cell biology and microscopy experience support our customers worldwide. This remote staff will work with users on our toll-free technical support phone hotline or by email to support application development, instrument inquiries, and troubleshooting.

- **Technical training for new users**—Every EVOS M5000 Imaging System includes access to a self-paced online educational experience designed to help you get up to speed quickly and efficiently anywhere, anytime. The Digital SmartStart™ 3D Experience includes interactive visual demonstrations of how to install, operate, and maintain your instrument.

- **Product warranty and service**—

- One year of warranty (standard warranty) is included with your instrument purchase. Additional years of coverage (extended warranty) may be purchased and can help you avoid unnecessary downtime and extend the life of your instrument. An instrument warranty package makes it easy to secure multiple years of coverage with Planned Maintenance right at the time of purchase.

- If your instrument needs repair, our Rapid Exchange (REX) service provides a factory-certified, refurbished, replacement instrument within two business day from the time we determine a replacement is required. Our AB Repair Center (ABRC) Support is ideal for customers in regulated environments that must maintain asset tagging consistency to comply with regulated protocols. With ABRC, we offer a targeted 2-day response to all inquiries related to your instrument and repair turnaround time is typically 3 weeks from receipt of the instrument. Our comprehensive service includes:

- Unlimited instrument repair (parts, labor, and shipping charges are included)
- Unlimited technical support (phone, WebEx™ conference)

- **Qualification services**—Installation qualification (IQ) and operational qualification (OQ) services help satisfy regulatory requirements by verifying and documenting that your instrument is installed and operating according to manufacturer's specifications upon installation and after a move.

000 «Диаэм»

Москва

ул. Магаданская, д. 7, к. 3 ■ тел./факс: (495) 745-0508 ■ sales@dia-m.ru

www.dia-m.ru

С.-Петербург
+7 (812) 372-6040
spb@dia-m.ru

Новосибирск
+7(383) 328-0048
nsk@dia-m.ru

Воронеж
+7 (473) 232-4412
vrn@dia-m.ru

Йошкар-Ола
+7 (927) 880-3676
nba@dia-m.ru

Красноярск
+7(923) 303-0152
krsk@dia-m.ru

Казань
+7(843) 210-2080
kazan@dia-m.ru

Ростов-на-Дону
+7 (863) 303-5500
rnd@dia-m.ru

Екатеринбург
+7 (912) 658-7606
ekb@dia-m.ru

Кемерово
+7 (923) 158-6753
kemerovo@dia-m.ru

Армения
+7 (094) 01-0173
armenia@dia-m.ru

