



EVOS®

THE FUTURE OF MICROSCOPY

ALL-IN-ONE

DIGITAL INVERTED
microscope

designed for performance and ease-of-use



+ ALL-IN-ONE microscope

The EVOS digital inverted microscope is unlike any other – powerful yet easy-to-use, ergonomically designed and fully integrated. Traditional systems rely on a chaotic blend of components – stands, cameras, couplers, light sources, power supplies, cables everywhere, etc. EVOS replaces this mess with one powerful seamless instrument – it's the future of microscopy.

- + Patented LED illumination technology (up to 4 channels)
- + Custom-engineered precision optics
- + Advanced ergonomic design
- + Small footprint – fits inside cell culture hoods
- + Integrated computer and imaging software
- + High-sensitivity digital camera
- + High-resolution 15-inch LCD

AMG's commitment to user-friendly design and functionality is visible in every feature – from the single switch to turn on the entire workstation to the streamlined software and user interface; the EVOS microscope was built from the ground up to maximize performance and optimize workflow. You'll be astonished at how easy it is to operate the instrument, and amazed how extraordinary your images look on-screen.

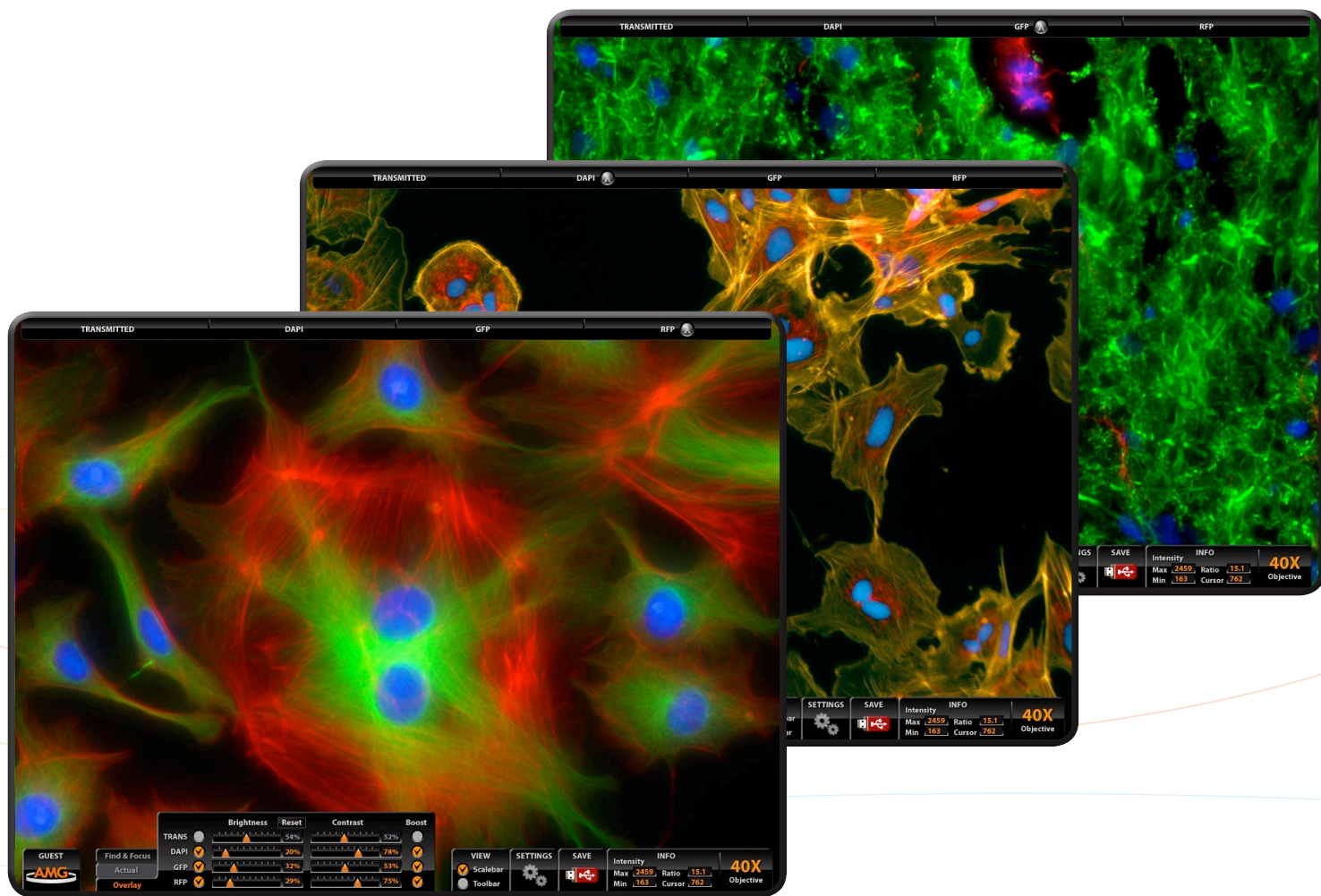
+ LED fluorescence

At the heart of EVOS fl is its unique patented LED light cube system (US Patent 7,502,164). Its world-leading light engine outputs remarkable intensity over a short light path to deliver incomparable excitation. Each cube contains an LED, condensing optics, and filters. They are user-changeable, automatically recognized by the system, and plug-and-play.

- + **Precise digital illumination level controls**
- + **50,000+ hour lifetime**
- + **Instant ON/OFF, no shutters**
- + **Environmentally safe mercury-free LED bulbs**
- + **15X less power consumption than conventional fluorescence microscopes**
- + **Easy installation and no maintenance required**

Each light cube contains a precisely matched set of optical components to optimize the position, evenness, and intensity of the light beam. Digitally controlled LED light sources allow adjustment of illumination levels; dramatically improving control over photobleaching.





+ Integrated imaging system

EVOS microscopes are equipped with an integrated computer and imaging software that were designed and programmed for real-life imaging. Everything you need to acquire, manipulate, save, and transfer an image can be done right from the microscope – in one place, with one instrument. Perhaps the most unique and useful feature is the ability to quickly collect a series of images using each filter cube and then automatically overlay them to create multi-channel composite images right at the microscope. Beyond these core functions, a toolbar provides an ever-growing list of added features – time-lapse video, cell counting, image overlays, automated transfection images, scale bar, and the list continues to grow...

You'll be amazed at how easy it is to learn and use the mouse-controlled user interface and how well the software performs and operates.

- + **Set image acquisition modes**
- + **Adjust exposure parameters**
- + **Overlay and export multi-channel fluorescence images**
- + **Auto track filters and objectives**
- + **Utilize imaging tools and features such as transfection analysis, time-lapse and cell counting**
- **Save data/images as 16-bit TIFF or PNG; 24-bit color TIFF, PNG, JPG, BMP files**

Images are saved on a flash drive or other USB external hard drives using any one of the three USB ports. A convenient DVI output allows connection to an external display or projector.

+ Technical specifications

EVOS xl - transmitted light microscope

EVOS fl - fluorescence microscope

Optics	Infinity-corrected optical system; RMS-threaded objectives with 45 mm parfocal distance					
Objectives*	EVOS xl			EVOS fl		
	MAG.	NA	WD	MAG.	NA	WD
	2X	0.06	6.0 mm	2X	0.06	6.0 mm
	4X Ph	0.13	17.2 mm	4X Ph	0.13	17.2 mm
	10X Ph	0.25	6.9 mm	10X FI	0.30	7.1 mm
	20X Ph	0.40	6.7 mm	20X FI	0.45	5.9 mm
	40X Ph	0.65	3.0 mm	40X FI	0.65	1.6 mm
	60X FI*	0.75	1.0 mm	60X FI	0.75	1.0 mm
Objective turret	5-position; front-mounted manual control					
EVOS fl Light cubes*	DAPI: 357 nm excitation 447 nm emission GFP: 470 nm excitation 525 nm emission RFP: 531 nm excitation 593 nm emission CFP: 442 nm excitation 510 nm emission YFP: 500 nm excitation 542 nm emission Texas Red: 585 nm excitation 624 nm emission Cy5: 628 nm excitation 692 nm emission QDots: All available wavelengths					
	<i>Holds up to 4 channels simultaneously.</i>					
Illumination	LED (50,000+ hour life); adjustable intensity					
Contrast methods	EVOS xl Transmitted light (brightfield and phase contrast)					
	EVOS fl Fluorescence and transmitted light (brightfield and phase contrast)					
Condenser	3-position turret for brightfield and phase contrast, slider with diffuser block and meniscus filters					
Condenser working distance	53 mm					
Mechanical "glide" stage	› X-Y axis fine-positioning controls; 69 mm (2.7-in) per rotation; 110 mm x 110 mm (4.3-in x 4.3-in) range of motion › Z-axis focusing controls, 480 µm/rotation › Interchangeable vessel holders available for most common shapes and sizes*					
LCD display	15-inch color, 1024 x 768 pixels; adjustable tilt					
Camera	EVOS xl 2048 x 1536, 3.2 µm/pixel; 3.1 MP COLOR					
	EVOS fl High-sensitivity monochrome, 1360 x 1024, 6.45 µm/pixel; (Sony® ICX285AL CCD)					
Image acquisition	Onboard computer; Intel® Atom processor 1.8 GHz; built-in software for image acquisition via mouse					
Captured images	EVOS xl Color TIFF, PNG, JPG or BMP (2048 x 1536 pixels)					
	EVOS fl 16-bit monochrome TIFF or PNG (12-bit dynamic range) 24-bit color TIFF or PNG; JPG, BMP					
Output ports	3 USB and 1 DVI					
Power supply	AC adapter; input 100–240V, 50–60Hz; output 5 VDC/4.15A					
Dimensions	Operating height: 57.8 cm (22.75-in) Storage/transport height: 32.4 cm (12.75-in) Depth: 47.0 cm (18.5-in) Width: 35.5 cm (14.0-in)					
Weight	EVOS xl 14.2 kg (31.4 lbs)					
	EVOS fl 15.3 kg (33.7 lbs)					

* For a complete list of objectives, LED light cubes, vessel holders, and stage plates, please contact your local representative.

* No phase contrast

"I never would have believed that high-quality fluorescence microscopy could be this easy! I can't imagine going back to my old microscope."



+ Ordering information

EVOS **xl** transmitted light microscope

Objectives	Arm Rest	Mfr. No.	Cat. No.
No objectives	No	AME-3300	12-563-450
Plan - Ph 4X, 10X, 20X, 40X	No	AME-3302	12-563-452
Plan - 2X; Ph 4X, 10X, 20X, 40X	No	AME-3301	12-563-451
Plan - 2X; Ph 4X, 10X	Yes	AME-3311	12-563-453

EVOS **fl** fluorescence microscope

Objectives	LED Light Cubes	Mfr. No.	Cat. No.
No objectives	No light cubes	AMF-4300	12-563-460
No objectives	GFP, RFP, DAPI	AMF-4305	12-563-464
4X Ph; Fluor 10X, 20X, 40X	No light cubes	AMF-4304	12-563-463
4X Ph; Fluor 10X, 20X, 40X	GFP, RFP, DAPI	AMF-4302	12-563-462
2X; 4X Ph; Fluor 10X, 20X, 40X	GFP, RFP, DAPI	AMF-4301	12-563-461

Please contact your local representative or visit www.amgmicro.com for a complete list of objectives, LED light cubes, vessel holders, and stage plates.



For customer service, call 1-800-766-7000.
To fax an order, use 1-800-926-1166.
To order online: www.fishersci.com