



# MICRON<sup>®</sup> SE

## Small Animal Ocular Imaging

**On the web:** <https://phoenixmicron.com>    **Email us at:** [sales@phoenixmicron.com](mailto:sales@phoenixmicron.com)



**Maximize Your Grant's Impact.** The MICRON SE camera delivers the proven imaging technology you need for publication at a price that preserves your funding for other critical research.

The MICRON SE camera is designed for researchers studying the mouse retina through fundus, GFP, Fluorescein Angiography and OCT imaging. The camera is ideal for early career researchers, imaging cores adding a second camera, and early-stage grants.

### Proven Imaging Technology

The flagship MICRON 5 and the all-new MICRON SE cameras are built on the same marketing leading optical and image sensor technology.

### Latest Software

The MICRON SE camera is powered by the latest version of MICRON<sup>®</sup> Software Suite, including our new Ai/ML OCT Segmentation tools.

Images and data captured on a MICRON SE camera can be copied to MICRON Review Station for analysis.



### Computer Flexibility

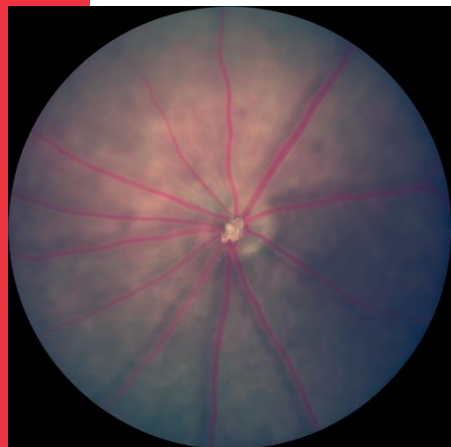
Supply your own Windows PC or add a MICRON Control Unit PC. It is up to you.





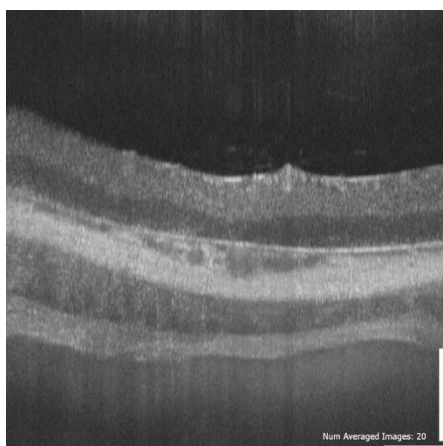
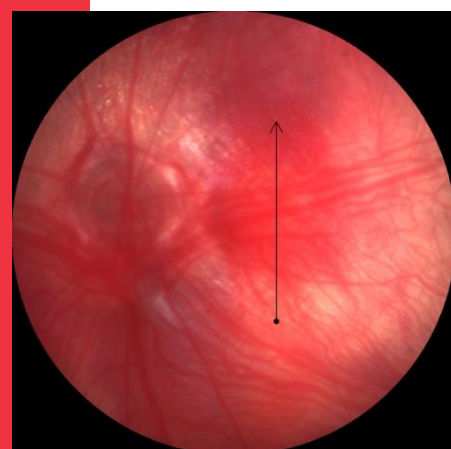
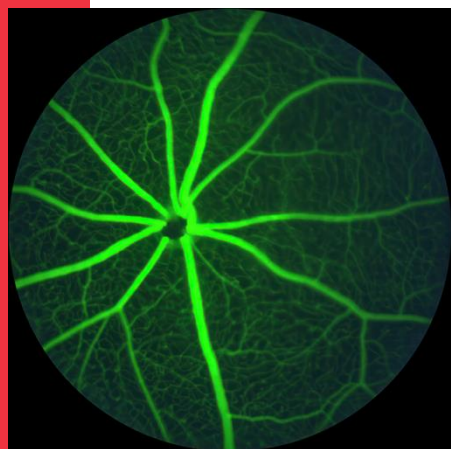
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## The MICRON SE Supports

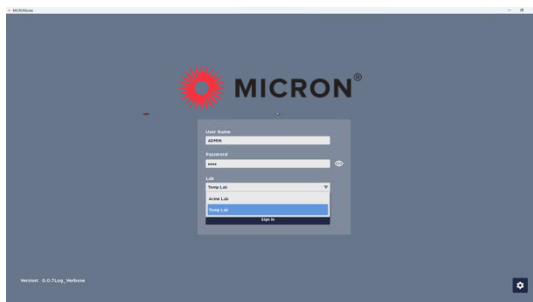
- Imaging mouse retina resolution below 3  $\mu\text{m}$
- Live, real-time fundus view
- Capturing still images and videos
- Color fundus, GFP, fluorescein angiography and optional OCT imaging
- Managing subject animal details and metadata
- User-defined tags applied to subject animals, imaging sessions, and images for enhanced search and analysis
- Extracting still images from videos
- Review, zoom, compare, and export images
- Adding optional MICRON Image-Guided OCT modality with the OCT-ready lens
- Integrated OCT segmentation for line scans





# Powered by MICRON Software Suite

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## Share the MICRON SE Camera Across Labs or Teams

MICRON Software Suite allows institutions to setup camera share schemes within a team and across labs



## Live Fundus View; Capture Still Images and Video

Real-time fundus view with ability to capture videos, extract frames from videos, and capture still images



## Tag, Search, Review, and Export

Rich data and image management tools improve data and image analytic value

Powered by MICRON Software Suite





# Specifications

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Specification	Details
Retinal imaging resolution	3 $\mu$ m or better (mouse)
Range of focus	Retinal surface to crystalline lens
Field of view	50 degrees; 1.8mm (mouse) 3.6mm (rat)
Dynamic imaging rate	30 fps to 2 fps
Imaging dynamic range	60 dB
Image formats	JPEG, TIFF, AVI
Data format	CSV
Light source	Xenon, 400 nm to 850 nm
Filters	2 filter positions in excitation and emission filter wheels. Includes color fundus GFP filter set..
Animal stage (included)	2 degrees of rotation; 3 degrees of translation; integrated heater elements to connect to optional heater controller; pre-plumbed for inhalant anesthesia such as Isoflurane
Camera head stand	X-foot platform with vertical and tilt camera adjustment
Operating system	Requires Windows 11
Monitor*	Wide screen 22" LCD recommended
Power*	Auto-switching 120 VAC / 230 VAC, 50 Hz or 60 Hz
Accessories	Foot switch, dust cover, mouse pad, lens cleaning tissue, water bottle, hi-liter, Purity swabs, coupling gel starter pack





# Key Features

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Feature	MICRON® SE Imaging System	MICRON® 5 Imaging System
MICRON Software Suite	✓	✓
Color Fundus Imaging	✓	✓
GFP	✓	✓
Image-Guided OCT	Optional	Optional
AI/ML OCT Segmentation	Included with OCT	Included with OCT
Works with Review Station	✓	✓
Objective Lenses	Fixed, fundus/OCT for mouse	Interchangeable, multiple modalities for mouse or rat
MICRON Control Unit (computer)	Customer supplied or purchased separately from Phoenix-Micron	Included
Aperture Control		✓
Auto-focus		✓
Auto-intensity		✓
Filters	White light and GFP/Fluorescein	Customizable, machine readable, magnetic snap-in wedges
Imaging Presets		Focus, illumination, aperture, filters, gain, frame rate
AWB Presets	✓	✓
Image-Guided Laser (532nm and 810nm)		Optional
Image-Guided Focal ERG		Optional
Slit Lamp		Optional





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## Computer Requirements

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**MICRON<sup>®</sup> SE** and **MICRON Review Station** each allow you to supply your own computer system. The chart below will help ensure that you choose the appropriate computer for your application.

Optionally you can purchase a preconfigured MICRON Control Unit directly from Phoenix-Micron or your distributor.

Requirements	MICRON <sup>®</sup> SE Imaging System	MICRON <sup>®</sup> Review Station
Processor (CPU)	Intel <sup>®</sup> Core™ i7 (13 <sup>th</sup> Gen +)	Intel <sup>®</sup> Core™ i7 (13 <sup>th</sup> Gen +)
RAM	16 GB DDR4	16 GB DDR4
Graphics Card (GPU)	Intel <sup>®</sup> UHD Graphics 730	Intel <sup>®</sup> UHD Graphics 730
SSD	512GB NVMe PCIe Gen 3	512GB NVMe PCIe Gen 3
HDD (for image storage)	2TB	2TB
Operating System	Windows 10 Pro (64-bit) Windows 11 Pro (64-bit)	Windows 10 Pro (64-bit) Windows 11 Pro (64-bit)
<b>Additional Hardware Requirements</b>		
USB Ports	Min. 3x USB 3.2	Optional
Ethernet Port	1x Gigabit	Optional
Display Port	Display port or HDMI (monitor dependent)	Optional

