



MICRON[®]

Image-Guided Focal ERG2

On the web: <https://phoenixmicron.com> Email us at: sales@phoenixmicron.com



MICRON Focal ERG2 Injector

The MICRON Image-Guided Focal ERG2 is an add-on imaging modality for MICRON retinal cameras.

Focal ERG Value

Testing a selected specific region is valuable to differentiate segments of retina functionality and is ideal for investigating retinal response where therapy is provided on a regional basis. The MICRON Image-Guided Focal ERG2 attaches to a MICRON camera and uses the camera's imaging capability to visualize the retina target.

Image-Guided stimulus placement using 650 nm light retains dark adaptation

The Focal ERG2 uses deep red illumination to precisely set the retina location for focal ERG stimulus while preserving dark adaptation of the animal.



Head Stage with electrodes

Unique Electrode System

The Image-Guided Focal ERG2 features a corneal electrode integrated into a gold-tipped ring at the tip of the objective lens. The animal eye couples to the objective lens/electrode using gel applied to the cornea, providing a stable optical and electrical connection to the eye.

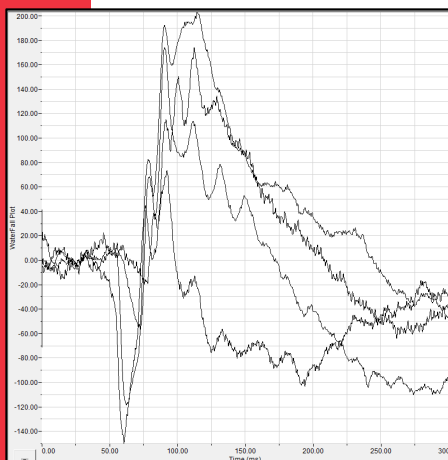


Stimulus and Reception Control

The focal spot size aperture can be set at 0.5 mm, 1.0 mm, 1.5 mm, 2.0 mm, or 3 mm. LED light delivers energy densities from above the ISCEV high standard of 100 cd sec/m² to $-1.7 \log = 0.02 \text{ cd}\cdot\text{s}/\text{m}^2$.

The software allows for background light, flicker control, and setting stimulus duration from 0.05 ms to minutes.

Signal is captured through short electrode leads that are attached to a Head Stage placed near the subject animal. The Head Stage includes pre-conditioning electronics to enhance signal-to-noise performance of the system.



ERG Output

Phoenix-Micron, Inc. | 543 NW York Drive, Suite 100 | Bend, OR 97703 | USA | +1.541.668.7539

© Copyright 2021-2026 Phoenix-Micron, Inc. All rights reserved. MICRON products are covered by one or more issued or pending patents, including US patent 7,993,000. MICRON[®], WhiskerWipes[®], and PuritySwabs[®] are registered trademarks of Phoenix-Micron, Inc.



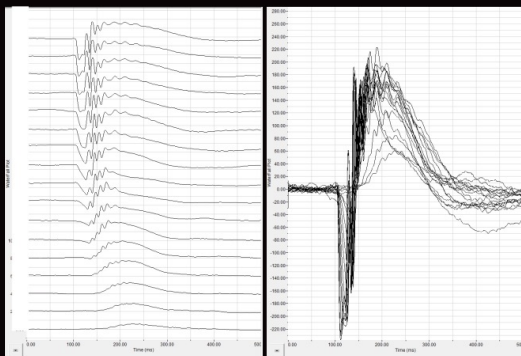


MICRON[®]

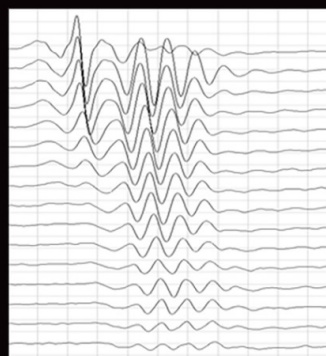
Image-Guided Focal ERG2

On the web: <https://phoenixmicron.com> Email us at: sales@phoenixmicron.com

Waterfalls with 3dB increments using 1.5 mm spot diameter on mouse

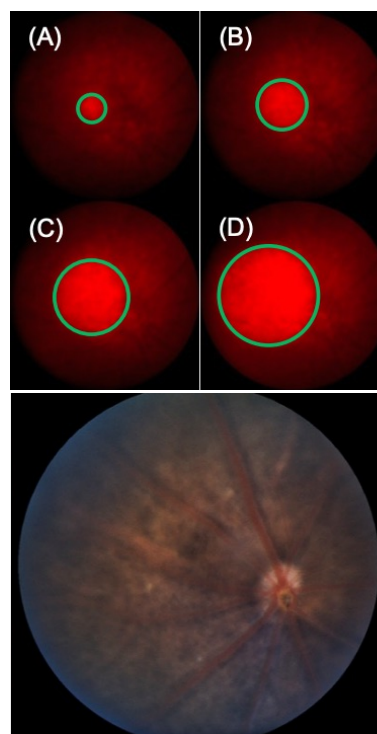


Advanced signal processing capability to extract and display OP signals



Features

- Attaches to MICRON retinal imaging camera
- Corneal electrode built into the objective lens simplifies subject animal handling, especially in a darkened lab
- Deep red guidance light keeps animal dark adapted while allowing for focal spot selection
- Five selectable spot aperture sizes, from 0.5 mm to 3 mm
- MICRON Software Suite enables capture of stimulus location
- Software-integrated heater control for Animal Stand-Pro



Phoenix-Micron, Inc. | 543 NW York Drive, Suite 100 | Bend, OR 97703 | USA | +1.541.668.7539

© Copyright 2021-2026 Phoenix-Micron, Inc. All rights reserved. MICRON products are covered by one or more issued or pending patents, including US patent 7,993,000. MICRON[®], WhiskerWipes[®], and PuritySwabs[®] are registered trademarks of Phoenix-Micron, Inc.





MICRON[®]

Image-Guided Focal ERG2

On the web: <https://phoenixmicron.com> Email us at: sales@phoenixmicron.com

Specification	Details
Stimuli	White light LED
Stimulation spot aperture size	0.5 mm, 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm Micrometer driven targeting
Range of stimulation in log cd sec/m ²	-1.7 to 3.1 Set levels over a range of 10 ⁵
Modes	Single flash Double/Flicker flash Continuous background with flash Light adaptation Chart mode
Pulse length	0.05 ms to minutes
Objective lenses	Objective lenses designed specifically for mouse or rat
Retinal targeting	Illuminate retina for alignment at 650 nm
Electrodes	Corneal contact (gold-plated objective lens) Platinum needles for tail (ground) and head (reference)
Re-designed low-noise electronics	New magnetically mounted head stage with short electrode connections for reduced electrical noise
Integrated heater	Heater power connection for optional MICRON Animal Stand-Pro with software control
Acquisition features	CLEAN mode to remove 60/50 Hz pickup noise; controllable bandwidth; controllable digitization sampling rate; control delay and pulse length for LED illumination
Analysis features	Automatic measurement of A and B wave peaks; automatic display of waterfalls; automatic measurement of OP peaks and implicit time; averaging with user selection
Data formats	Export .txt, .csv, .jpg, .png
Published research applications	• Safety and Functional Toxicity of Ocular Interventions • Efficacy of Regenerative and Cell-Based Therapies • Characterization of Genetic Mutants and Target Gene Modulation • Evolution of Pharmacological, Metabolic and Epigenetic Treatments • Functional Phenotyping of Vascular and Barrier-Disrupted Models

Phoenix-Micron, Inc. | 543 NW York Drive, Suite 100 | Bend, OR 97703 | USA | +1.541.668.7539

© Copyright 2021-2026 Phoenix-Micron, Inc. All rights reserved. MICRON products are covered by one or more issued or pending patents, including US patent 7,993,000.
MICRON[®], WhiskerWipes[®], and PuritySwabs[®] are registered trademarks of Phoenix-Micron, Inc.





MICRON[®]

Image-Guided Focal ERG2

On the web: <https://phoenixmicron.com> Email us at: sales@phoenixmicron.com



Compatible with MICRON 5 and MICRON IV Cameras
MICRON Image-Guided Focal ERG2 is a modality add-on to both MICRON IV and MICRON 5 cameras.

1000+

Published papers that incorporate MICRON data

15+

Years of experience innovating patented small animal imaging technology

8

Imaging modalities in a compact footprint

5

The latest generation MICRON Camera

2

Camera platforms

Phoenix-Micron, Inc. | 543 NW York Drive, Suite 100 | Bend, OR 97703 | USA | +1.541.668.7539

© Copyright 2021-2026 Phoenix-Micron, Inc. All rights reserved. MICRON products are covered by one or more issued or pending patents, including US patent 7,993,000.
MICRON[®], WhiskerWipes[®], and PuritySwabs[®] are registered trademarks of Phoenix-Micron, Inc.

