MIGHTEX

Welcome to the newest member of the family...

Polygon UHC

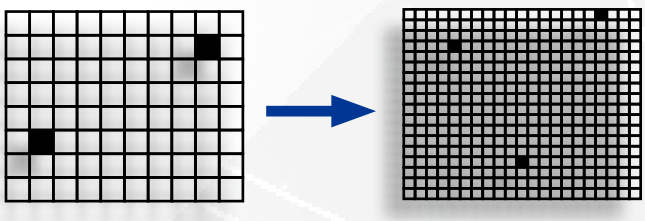
DMD Pattern Illuminators

ULTRA HIGH CONTRAST RATIO OF 10,000,000:1

We are happy to introduce our Polygon UHC DMD pattern illuminator! The Polygon UHC incorporates the latest in digital micromirror technology with the marketing-leading contrast ratio of 10,000,000:1. Contrast ratio refers to the ratio of the light intensity of an all-on image to an all-off image. The higher the contrast ratio, the better the background light can be suppressed. Combining ultra high contrast ratio with DMD simultaneous multi-region illumination capability, the Polygon UHC will unlock many applications for bioscience researchers.

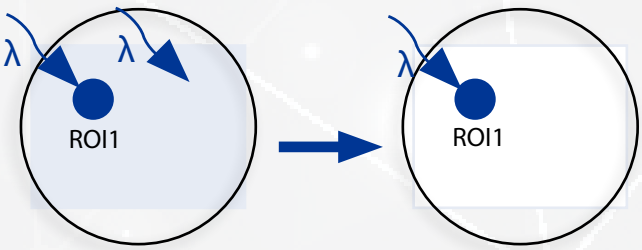
1 Larger Optogenetic Grid Scans.

Create optogenetic grid scans with greater number of grids for higher spatial resolution circuit mapping.



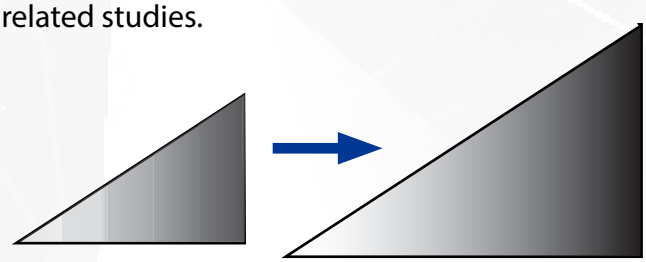
2 Decreased Ectopic Activation.

Decrease unwanted photoactivation in surrounding light sensitive areas within your tissue of interest.



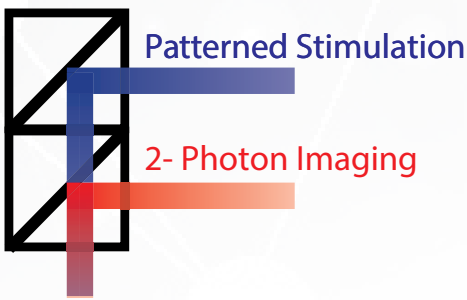
3 Larger Dynamic Range.

Produce more grey levels for applications that require high dynamic ranges such as retina-related studies.



4 2-Photon Setup Compatible.

Seamless integration with 2-photon microscopes, allowing easy transition between patterned stimulation and 2-photon imaging.



PRECISOMETER | European Distributor of Mightex https://www.precisometer.com/mightex

ILLUMINATION FIELD-OF-VIEW & RESOLUTION

Model	Field of view	Projection Area	Commercial Microscope (1X Objective)[a]			
			Leica	Nikon	Olympus	Zeiss
Polygon UHC	Standard	Diameter[b] | mm	12.4	12.4	11	10.2
		Pixel Size | µm	15.2	15.2	13.8	12.6

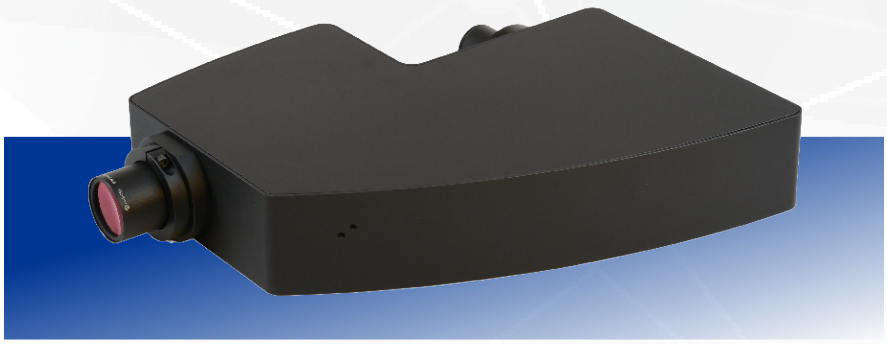
[a] To calculate illumination field-of-view and pixel resolution at the specimen, simply divide the above numbers by the magnification of the objective.
[b] Polygon UHC has a circular illumination field-of-view.

FEATURES

- Illuminate any Shape or Size Within Large FOV
- 10,000,000:1 Contrast Ratio
- Simultaneous Multi-Region Illumination
- Fast Pattern Switching Speed up to 6.6 kHz
- Infinity Path Design
- Accepts SMA-connectorized fiber input from laser sources
- Wavelength range of 400nm - 700nm

Our primary goal is to help you find the optimal solution for your research. We have a dedicated technical support and sales team committed to providing expert guidance on our Polygon models and other Mightex products.

For questions and feedback please visit
www.mightexbio.com/contact



MIGHTEX

Photonics Tools for Neural Circuit Visualization & Manipulation

OASIS FIBERSCOPE

Fiberscope solution for simultaneous cellular-resolution optogenetics and calcium imaging in freely-behaving animals to probe complex neuronal networks.

- *Multiple Excitation Wavelengths*
- *Multiple Regions of Interest*
- *Scalable for High-throughput Experiments*
- *Compatible with High Speed Cameras*
- *Reconfigurable Platform*

POLYGON1000

DMD pattern illuminator providing precise spatiotemporal control of light with subcellular resolution, making it the perfect illumination tool for life science research.

- *Cellular-Resolution Optogenetics & Photostimulation*
- *Simultaneous Multi-Region Illumination*
- *Any Shape, Any Size, From UV to Far Red*
- *Subcellular Resolution*
- *Compatible with Any Microscope*

OASIS MACRO

Mesoscope solution for all-optical targeted optogenetics, calcium imaging, and intrinsic imaging. Enabling researchers to simultaneously image the entire mouse cortex and perform targeted optogenetics when paired with Mightex's Polygon.

- *Large Field-of-View for In Vivo Imaging*
- *Spatially Patterned Targeted Optogenetics*
- *Reconfigurable Mesoscope*
- *Designed for Head-Fixed In Vivo Experiments*