

Welcome to the newest member of the family...

Polygon UHC

DMD Pattern Illuminators

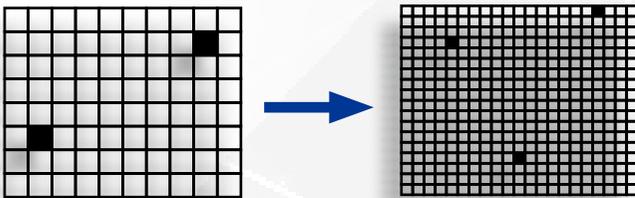


ULTRA HIGH CONTRAST RATIO OF 10,000,000:1

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.

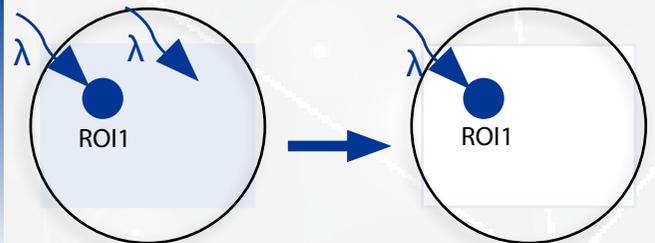
1 Larger Optogenetic Grid Scans.

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



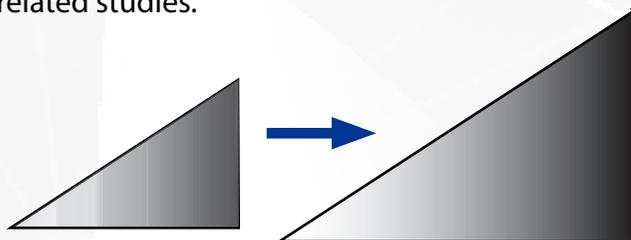
2 Decreased Ectopic Activation.

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



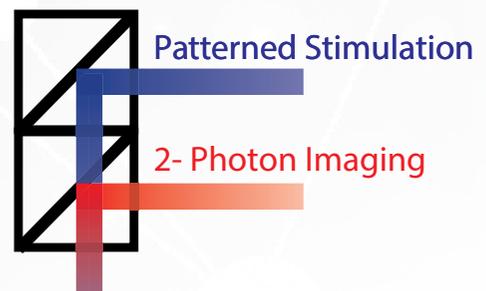
3 Larger Dynamic Range.

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.



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





Photonics Tools for Neural Circuit Visualization & Manipulation

OASIS Implant

Ground-breaking system for simultaneous cellular-resolution optogenetics and calcium imaging in freely-behaving animals to probe complex neuronal networks.

- Simultaneous Calcium Imaging & Optogenetics
- Multi-Region Investigation
- Reconfigurable Platform
- High-Quality Imaging with Scientific Cameras



OASIS Macro

A mesoscope for all-optical targeted optogenetics, calcium imaging, and intrinsic imaging. It enables researchers to simultaneously image the entire mouse cortex and perform targeted optogenetics (with Mightex's Polygon DMD illuminator).

- Large field-of-view for in vivo imaging & optogenetics
- Targeted optogenetics
- Reconfigurable mesoscope
- Designed for in vivo experiments

Polygon1000

Market-leading DMD illuminator provides 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
- Subcellular Resolution
- Compatible with Any Microscope

