

## XYFM1/M - October 2, 2018

Item # XYFM1/M was discontinued on October 2, 2018. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

### MICROSCOPY SLIDE AND TEST TARGET HOLDERS

- Mount Glass Slides, Filters, or Test Targets
- Translating or Fixed Versions
- Firmly Hold Samples in Place
- Multiple Mounting Options



**C4SH01**  
Multi-Slide Holder Tray



**MAX3SLH**  
Fixed Microscope Slide Holder



**SLH1**  
Microscope Slide Clips



**XYFM1**  
XY Test Target Positioner  
Mounting an R1L3S5P  
Distortion Test Target

[Hide Overview](#)

#### OVERVIEW

##### Features

- Ideal for Mounting Rectangular Optics Such as Microscope Slides or Test Targets
- XY Translating or Fixed Options
- Hold Samples Firmly in Place
- Versatile Mounting Arrangements

These microscopy slide holders are ideal for mounting most rectangular optics or multiple slides within home-built microscopy systems.

##### Fixed Microscope Slide Holder

The MAX3SLH fixed slide holder is compatible with microscope slides or test targets as well as any rectangular optic that has a minimum width of 1.73" (44.0 mm). It is directly compatible with our 3-axis flexure stages (see image below), as well as other translation stages that have 1/4"-20 (M6) taps on 2" (50.8 mm) centers.

##### Microscope Slide Spring Clips

SLH1(M) Microscope Slide Spring Clips can be attached to any stage with 8-32 (M4) tapped holes to hold microscope slides or test targets of various sizes. Each clip is 2.51" (63.7 mm) long with a 0.20" (5.1 mm) wide tip and can be rotated 360° for easy access to slides. Three dowel pins are included to align slides over the central aperture of our XYR1(M) and XYT1(M) Translation Stages.

##### Four-Position Microscope Slide Holder

The C4SH01 multiple slide holder supports up to four 25 mm x 75 mm microscope slides per tray, enabling fast analysis of multiple cultures. To support large-

sample automated data collection, this microscopy slide tray has been designed to work with most common robotic plate readers. It is directly compatible with any microscope stage insert that accepts standard multiwell microplates, such as Thorlabs' z-axis piezo stage, XY scanning stage (when the MLS203P1 plate adapter is also installed), or imaging cytometers. The C4SH01 is not compatible with the 26 mm x 76 mm slides sold by Thorlabs.

### Test Target Positioning Mount

The XYFM1(/M) Test Target Positioning Mount provides self-contained translation. This mount, which was originally a standard microscope slide holder, was upgraded by Thorlabs to fully secure test targets, slides and filters in a variety of orientations. It has two actuators on the side of the mount that allow for manual positioning of targets over a 50 mm (1.97") x 30 mm (1.18") area. Though designed for use with our selection of test targets, it is compatible with any rectangular optic 1" (25.4 mm) to 3" (76.2 mm) wide and up to 0.12" (3 mm) thick.

[Hide Fixed Microscope Slide Holder](#)

### Fixed Microscope Slide Holder

- ▶ Accommodates Glass Slides of Variable Width of  $\geq 1.73$ " (44.0 mm)
- ▶ Compatible Petri Dish Diameters: 1.46" (37.1 mm) to 1.63" (41.4 mm)
- ▶ Spring Clips Hold Sample Firmly in Place
- ▶ Adapter Mounts Directly to Our
  - NanoMax, RollerBlock, and MicroBlock Flexure Stages
  - Any Stage with 1/4"-20 (M6) Taps on 2" (50.8 mm) Centers



Click to Enlarge  
The MAX3SLH can be Mounted Directly to our 3-Axis Nanopositioning Stage

The MAX3SLH Microscopy Slide Holder allows petri dishes and glass slides to be mounted on motion control stages for integration into custom microscopy setups such as optical tweezers. Two sets of mounting holes allow versatility. One set of four #6 (M3) counterbores is compatible with our 3-axis NanoMax flexure stages. A set of 1/4" (M6) slots with 2" (50.8 mm) separation is designed for mounting to many other components, including those with a 2" imperial hole pattern.

The spring clips are rotatable to accommodate easy swapping of petri dishes and glass slides. There is a 1" long clear aperture between the mounting surfaces of the clips. They are also interchangeable with the SLH1 Microscope Slide Spring Clips sold below, as they both use 8-32 screws to secure them.

Part Number	Description	Price	Availability
MAX3SLH	Customer Inspired!&nbsp;Microscopy Slide Holder	\$127.00	Today

[Hide Microscope Slide Spring Clips](#)

### Microscope Slide Spring Clips

- ▶ Pair of Spring Clips Hold Sample Firmly in Place
- ▶ Accommodates Microscope Slides and Test Targets of Various Sizes
- ▶ Attaches Directly to Any Stage with 8-32 (M4) Tapped Holes
- ▶ Dowel Pins Included for Aligning Standard Slides Over the Through Hole in Our XYR1(/M) or XYT1(/M) Translation Stages (See Photo to the Right)



Click to Enlarge  
SLH1 Spring Clips Attached to the XYT1 Translation Stage, Holding a Test Target That is Aligned Over the Central Aperture Using the Provided Dowel Pins

These steel spring clips, which are ideal for securely holding various sizes of microscope slides and test targets, come with two 8-32 (M4) threaded shoulder screws, each of which has a 3/32" (2.5 mm) hex socket for simple attachment to a variety of stages. Each clip is 2.51" (63.7 mm) long with a 0.20" (5.1 mm) wide tip and can be rotated 360° for easy access to, or positioning of, a slide. The tip of the clip is curved upwards to help prevent damage and facilitate the mounting of slides, while also providing enough holding force to secure it in place.

The inclusion of three  $\varnothing 1/8$ " x 1/4" dowel pins makes these spring clips an excellent choice for use with our XYR1(/M) and XYT1(/M) Translation Stages (see the image to the right). These stages have a central  $\varnothing 1$ " hole that is SM1 threaded (1.035"-40), and the top plate contains three alignment holes that are used with the  $\varnothing 1/8$ " dowel pins. The dowel pins are positioned on the stage so that standard 1" x 3" (25.4 mm x 76.2 mm) slides are centered over the aperture, allowing for repeatable and accurate positioning of the slides.

Please note that any XYR1(/M) stage purchased before June 4, 2014 does not have dowel pin holes in the top mounting plate.

Part Number	Description	Price	Availability
SLH1/M	Microscope Slide Spring Clips, M4 Thread, Qty: 2	\$43.10	Today

[Hide Four-Position Microscope Slide Holder](#)

Four-Position Microscope Slide Holder

- ▶ Compatible with 25 mm x 75 mm Microscope Slides
- ▶ Secures up to Four Slides and Requires Minimal Slide-to-Slide Focal Adjustments
- ▶ Highly Versatile and Adaptable for Automated Tissue Analysis on Multiple Slides
- ▶ Compatible with Most Common Robotic Plate Readers
- ▶ Designed for Inverted Microscopes



The C4SH01 Four-Position Microscope Slide Holder, made from black PEI plastic, allows up to four 25 mm x 76 mm slides to be mounted into our imaging cytometers or on microscope stages. The C4SH01 is not compatible with the 26 mm x 76 mm slides sold by Thorlabs. Slides are loaded into the bottom of the tray (see image to the right), ensuring excellent stability and maintaining near parfocality from slide to slide. This slide holder has the external footprint of a standard multiwell plate (127.6 mm x 85.5 mm), allowing it to be easily integrated into existing microscope stages (e.g., Thorlabs' MLS203 fitted with MLS203P1 or MZS500-E) or robotic plate loaders.

Part Number	Description	Price	Availability
C4SH01	Four-Position Microscope Slide Holder	\$82.62	Today

[Hide XY Translation Mount for Rectangular Optics](#)

XY Translation Mount for Rectangular Optics

- ▶ Compatible with 1" (25.4 mm) to 3" (76.2 mm) Wide Rectangular Optics
- ▶ Maximum Optic Thickness of 0.12" (3 mm)
- ▶ 50 mm (1.97") Horizontal Travel and 30 mm (1.18") Vertical Travel
- ▶ Each Axis Includes a Vernier Scale that Provides 100 µm Resolution
- ▶ Five Post-Mountable Orientations via Adapter with Five 8-32 (M4) Tapped Holes
- ▶ Four Nylon-Tipped Setscrews Secure the Optic Within Two Mounting Arms



Thorlabs' XYFM1(M) Test Target Positioning Mount allows for quick and adjustable mounting of 1" (25.4 mm) to 3" (76.2 mm) wide rectangular optics up to 0.12" (3 mm) thick. The mount, which was originally a standard microscope slide holder, was upgraded by Thorlabs to add versatility and ease of use. This makes it ideal for general applications as well as home-built microscopy systems. It is designed for use with our selection of resolution, distortion, slant edge, and calibration test targets. However, it is also compatible with our rectangular filters, dichroic mirrors, variable ND filters, and fluorescence imaging filters.

Two actuators on the side of the mount allow manual positioning over a 50 mm (1.97") x 30 mm (1.18") area. Each axis of translation is equipped with a Vernier scale that provides a resolution of 100 µm, allowing for repeatable positioning of the mounted optic. A square mounting adapter that has five 8-32 (M4) tapped holes (see image to the bottom left) is provided on the back of the mount and is secured in place by the front-located thumbscrew. This allows for various Ø1/2" post-mountable orientations. The different orientations are shown below.

Optics are mounted using two support arms that each contain two nylon-tipped setscrews that use a 0.05" (1.5 mm) hex key. One support arm is fixed, while a second arm is free to move along a channel. The movable arm can be locked in place using a top-located locking screw with a 5/64" (2 mm) hex. This mounting mechanism can be seen in the photo to the above right. If the locking screw is loosened enough, the movable arm can be removed from the channel. It can be reattached using the 2-56 locking nut that is captive in the channel; simply align the locking screw with the nut and tighten.

Please note that the chrome pattern at the edge of a test target may be covered when held between the two mounting arms.



Part Number	Description	Price	Availability
XYFM1/M	Customer Inspired!&nbsp;XY Mount for 1" - 3" Rectangular Optics, M4 Taps	\$187.68	Today
XYFM1	Customer Inspired!&nbsp;XY Mount for 1" - 3" Rectangular Optics, 8-32 Taps	\$187.68	Today

