

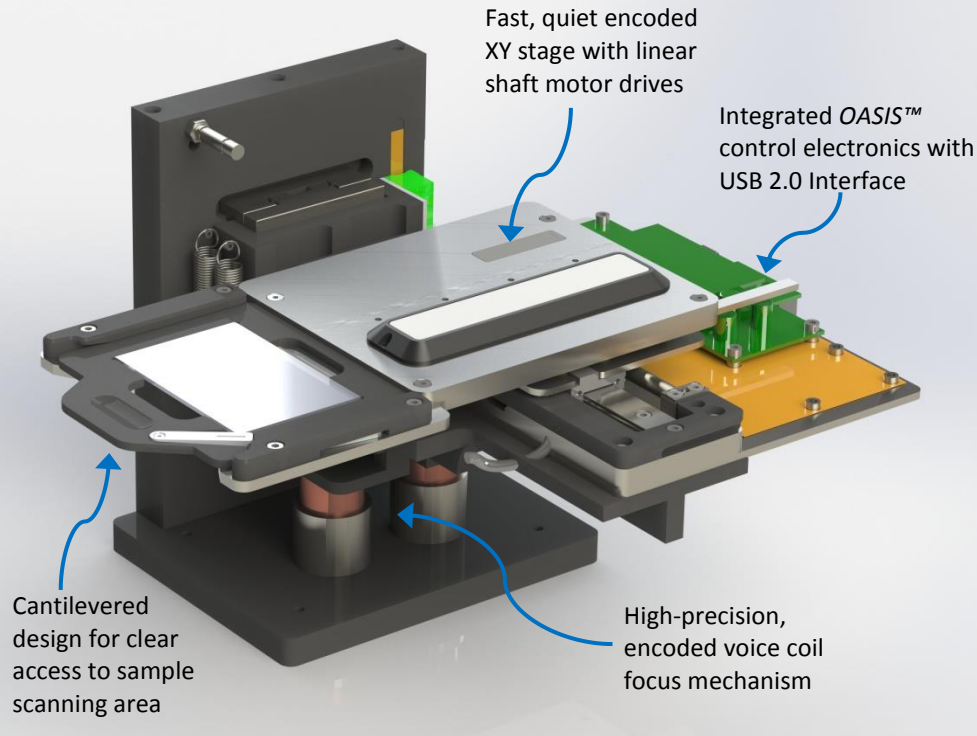
OASIS-Glide OEM XYZ

Three Axis Automation Module

OASIS
glide

The ideal automation platform for OEM systems requiring motorized stage and focus

OASIS-Glide OEM XYZ Module



The **OASIS-Glide OEM XYZ Automation Module** is the ideal platform to serve as the foundation for compact and economical scanning systems.

A unique combination of innovative electro-mechanical design and the latest technologies and materials provides a ready-made solution for the high performance XY positioning and Z focus capabilities that are fundamental to modern scanning applications.

The compact, versatile design of the OASIS-Glide XYZ Module—including the cantilevered sample scan area, precision voice coil Z focus system, linear shaft XY stage motors, and integrated control electronics—ensures fast time-to-market with no compromises in automation system performance.

The on-board OASIS™ controller is accessed via a standard USB 2.0 communication interface, and the powerful, well-proven OASIS Automation Library is included to allow rapid, straightforward application software integration.

Mechanical Features

- ◆ XY travel range 75 mm x 52 mm
- ◆ 1.0 μm XY encoder resolution, 0.1 μm optional
- ◆ +/- 1.0 μm XY repeatability
- ◆ Linear shaft XY drive technology
- ◆ Precision high-speed voice coil actuator for Z-axis movement
- ◆ Z travel range 15 mm
- ◆ 0.05 μm Z encoder resolution
- ◆ High speed servo loop Z control
- ◆ Integrated “hall effect” sensors
- ◆ Zero-backlash contactless drives
- ◆ Swiss-made G1/V1 rail system
- ◆ Ultra low profile sample holder for glass slides (3.5 mm)
- ◆ Interchangeable sample holders in standard and custom designs
- ◆ Reflected or transmitted light
- ◆ Ideal for Surveyor/Turboscan™-based virtual slide scanning applications
- ◆ Very quiet motion
- ◆ Compact and neat design

Integrated Control Electronics

- ◆ Ultra-compact controller PCB
- ◆ Optional stepper motor Z focus control output with encoder support
- ◆ Piezo control option (16-bit DAC output @ 0-10V)
- ◆ Camera trigger I/O
- ◆ Joystick interface (XYZ)
- ◆ Very low power (7 watts typical)
- ◆ USB 2.0 interface
- ◆ Full compatibility with OASIS™ automation software
- ◆ Compatible with many 3rd party software applications

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Technical Specifications

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Feature	Specification	Comment
XY maximum travel	75 mm x 52 mm	Fits 2 single slides or 1 double width slide
XY linear encoders	Optical, 1.0 μm resolution (0.1 μm resolution optional)	Linear encoders for high accuracy and precision
XY repeatability	+/- 1.0 μm	Tested mean bi-directional <0.5 μm (with 1.0 μm encoder option)
Maximum XY speed	100 mm/sec	Ideal for throughput-critical applications
Motor type / Drive	DC servo / Linear shaft	Fast, contactless, quiet zero backlash motors
XYZ drive guidance	G1/V1 stainless steel	Ultimate quality, accuracy, and precision
Z-axis maximum travel	15 mm	Suitable for broad variety of specimen types
Z-axis linear encoder	Optical, 0.05 μm resolution	Ensures high-precision focusing
Maximum Z-axis speed	10 mm/sec	Typical time for 10 μm move <75 msec Typical time for 100 μm move <150 msec
Z-axis control	Permanent servo control	Permanent servo control and high quality Swiss bearing assembly for smooth running and long-term stability down to +/- 0.05 μm
Control electronics	Integral	High-performance OASIS compact controller embedded in design
Communication interface	USB 2.0	Fast, easy, universal connection to control computer
Power	+24V input, 3 amp maximum, 7 watts typical	Very low power consumption
Ambient temperature	Maximum 40°C / 104°F	Cooling recommended if enclosed
Materials	Rolled tooling plate aluminum for critical components	Highest quality component materials
Finish	Critical areas black anodized	Reflection free and durable
Dimensions (WxHxD)	247 mm x 139 mm x 316 mm	Nominal dimensions with controller and mounting plate—drawings available upon request

Note: Specifications are subject to change without notice