

Rapid Automated Modular Microscope (RAMM)



RAMM Features

- Featuring automated high-speed XY stages, precision piezo & motorized Z focusing, and a wide range of scanning options
- Configurable with infinity-corrected optics, dichroic filter cubes, multi-wavelength excitation and emission filterwheels, shutters, and detectors including cameras and photomultipliers
- Auto-focus, focus stabilization, tracker, and robotic specimen loader available
- Arrangement provides a solid platform for high throughput screening, genetic sequencing, experimental research, and much more
- Designed for flexible cost-effective OEM development using high quality high MTBF components to reduce cost and increase customer satisfaction

Lead Screw Options

Lead Screw Pitch Options	Rotary Encoder Resolution	Maximum Speed
25.40 mm (Ultra-coarse)	88 nm	28 mm/sec
12.70 mm (Super-coarse)	44 nm	14 mm/sec
6.35 mm (Standard)	22 nm	7 mm/sec
1.57 mm (Fine)	5.5 nm	1.75 mm/sec

Optional Linear Encoders: = Resolution 10 nm, Accuracy = $\pm 3 \mu\text{m}$ per length of scale

Specifications for Standard Configuration

XY stage range of travel	Full XY stage range of travel (zero obstruction)
Linear translation range of travel	At least 50 mm
Resolution (rotary encoder step)	0.022 μm
RMS repeatability	< 0.7 μm
Maximum velocity	7 mm/sec

*Shown with 6.35 mm pitch Lead Screw