

BioZip II - *It's FAST!*

Fluorescence and brightfield benchtop optical scanning system with high speed, multi-dimensional image acquisition capabilities. User friendly operations in standard lighted laboratory environment, no darkroom required.

- Motorized XY Stage
- Z Focus uses stepper motor and/or Piezo objective/stage insert
- Sample formats: 1" x 3" or 2" x 3" slides, multi-well format plates, and petri dishes.
- PCI-based hardware controller allows for powerful imaging
- Solid state, fast-changing, high intensity epi-fluorescence lighting
- White light LED for diascopic illumination
- Integrated user-friendly software to orchestrate simple image acquisition through complex multi-dimensional experiments
- Sensitive, high resolution digital CCD cameras (Color or Monochrome)



True Optical Magnification

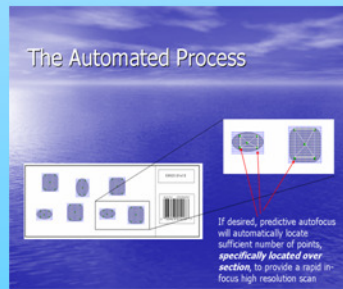
- 4x-10x-20x-40x-60x oil Objectives (no zoom or optical mag changer)

Fast Scan Times

- **Scan Times:**
Complete microscope slide, 25mm x 50mm (1250mm²), at 10x with predictive autofocus
1 channel fluorescence - 9 minutes
3 channel fluorescence - 27 minutes
4 channel fluorescence - 36 minutes
Custom area (20x20mm) - 2.5 minutes

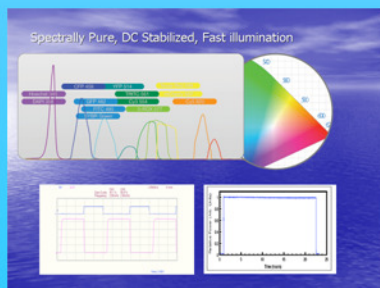
Multi-sample Format

- 1" x 3" and 2" x 3" slides
- 96/384 Multiwell plates and Petri dishes

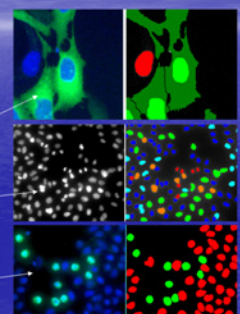
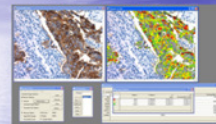


Solid State Lighting

- 10,000 hours no bulbs to replace
- Switching speeds - rise/fall times <10 microseconds (up to 5KHz)



Application Solutions



- Immunohistochemistry
- Cell Scoring Application
- Angiogenesis Tube Formation
- Cell Cycle
- Neurite Outgrowth
- Endothelial tube formation (Angiogenesis)
- Cell proliferation (Count Nuclei)
- Mitotic Index
- More ...

Flexible

Acquiring high quality digital images has never been simpler while still *allowing flexibility* in the system to accommodate the various applications in today's laboratory.

- Choose YOUR Sample Format
- Choose YOUR Camera (12 /14 bit, color or monochrome)
- Choose YOUR Experimental acquisition conditions
- Choose manual sample loading or automated loader
- Auto exposure or manual camera exposure control
- Add thermal control/CO₂ for live cell experiments

Thermal Environment Control for Live Cell Imaging



- Multiple Sample holders
- CO₂ & O₂ Pre-humidified
- Reduce evaporation

BioZip II

Item	Specifications	Item	Specifications	
Observation Modes	Brightfield, Phase Contrast, Epi-Fluorescence	Computer/ Hardware/ Software		
Acquire Mode	Single Image, Z-Acquire, Short/Long term Time Lapse, Multi-dimensional, Mosaic Tiling with edge stitching.		Operating System	Windows XP Pro, Windows Vista , Windows 7
Specimen Holders	Single 1" x 3" Slide, Quad 1" x 3" Slide, 2" x 3" Slides, 1" x 3" chambered Slides, Multi-well format Plates (96, 384 well), 35mm Petri Dish		Software Options	Objective Imaging - Surveyor Molecular Devices - MetaMorph Media Cybernetics - Image-Pro Plus
Speed	Example: 25mm x 50mm (1250mm ²), 10x, 4 channel with predictive auto focus ON <36min		Computer	Intel Core2 Duo, CPU 3.0/1333 E8400, 4GB *DDR2* 667MHZ RAM, GeForce 9600GT dual slot 1GB PCIE, dual 22" LCD Monitors
Automated Focusing	User defined, Coarse, Coarse/Fine, Automated Predictive Autofocus		Power	AC 100-240, 50/60 Hz
XY Tiling/Mosaic Modes	TurboScan Cruise, TurboScan Stepped, Multi-Channel, Z- Stack, Single Channel		Dimensions	24"W x 18"D x 24"H - Standard BioZip II 48"W x 24"D x 30"H - BioZip II with Slide Loader
Reliability	Stable across thousands of slide scans with no maintenance or recalibration required.		Firewire Interface	800 Mbit/sec, 1394b
Camera (Mono)	8/14 bit-mono 6.45um square pixels 1392x1040, 65% QE max @500nm			
Camera Exposure Control	Auto Exposure or Manual Exposure; microseconds to minutes for a range of probes and experiments.			
XY Stage	Motorized, stepper (Optional Linear Encoders), 4"x3" total coverage, 0.04um min step, submicron repeatability.			
Z Focus Drive	Motorized, stepper (Optional Piezo-Objective or Stage), 0.1um resolution, Z limit switches included	Optional Equipment		
Motorized Controller	High Performance PCI or PCIe Card . Multiple hardware configuration options available	XY and Z Linear Encoder	0.05 micron resolution	
Objectives	Motorized 4 Position Optic Changer Objectives available: 4x, 10x, 20x, 40x LD, 40x (oil), 60x (oil).	Automated Slide Loader	200 Capacity Automated Slide loader, 4 x 50 Slide cassettes. Will accommodate 1"x3" or 2"x3" slides. Approx 15-20 sec cycle time.	
Illumination Source	Solid State Technology (Wavelengths Configurable). High intensity, fast change rates, 10 micro sec (up to 5kHz), 10,000 HR Life (MTBF), Output Power monitoring (For retro/feedback).	Barcode Reader	1D or 2D Reader	
Fluorescence Filters	Pinkel Multi-Channel Standard, Sedat Multi-Channel. Optional with emission filter wheel. Additional filter sets available upon request.	Thermal & CO ₂ Regulation	Electric Stage Incubator, CO ₂ regulator, multiple sample holders	
Image Format	Full Resolution .TIF, .BMP, Compressed .JPG, .JP2, .AVI	Camera (Color)	12 Bit Color 4.65um square pixels 1392x1040 Bayer Mask	
System Enclosure	Easy access sample loading, Lighted room use, (Optional thermal /CO ₂ regulation)	Emission Filter Wheel	Used for Sedat Multi-Channel filter set or emission-based ratio acquisition.	
Warranty	1 Yr Parts and Labor			

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