OPTEM®

A-Zoom
Single-Objective Zoom Microscopes

excelitas®

A-Zoom

Single-Objective Zooming Video Microscopes... Designed for Productivity, Engineered for Precision

Originally developed to locate and inspect the finest electronic traces using even finer electronic probes in semiconductor and integrated circuit applications, A-Zoom Microscopes offer extended zoom ranges with numerical apertures capable of resolving feature geometry in the sub-micron range. The field-proven A-Zoom line offers streamlined operation and economy in the manual A-Zoomμ® Micro Series. The A-Zoomμ® Micro Series offers a broad range of features and options to ensure the perfect brightfield imaging solution for most any micro inspection application.

The exclusive single-objective zoom optical design combines with precision optomechanics and Optem Long Working Distance Objectives to deliver extended magnification imaging with maximum working space in and around your subject. With ample working room for instruments, tooling and fixtures, A-Zoom reduces damage to delicate subjects due to incidental contact.

- Analytical Probing
- Micro Hole Arrays
- Mold Inspection
- Channel Milling
- Solder Bumps
- Materials Analysis
- Filter Inspection
- Particle Analysis
- Welds and Joints
- Micro Finishing
- Layer Passivation
- Laser Machining & Etching

A-Zoomμ Micro

- Economical 7:1 manual zoom
- 2X optical amplifier extends imaging
- Ergonomic design maximizes throughput
- Eyepiece and video viewing options
- Compact integration and mounting

A-Zoomμ Micro

Designed for streamlined operation and compact integration onto electronic probers, quality fixtures and inspection workstations, the A-Zoomμ Micro offers a high-value solution for precision inspection, machining and analysis without sacrificing features, function or performance.

The A-Zoomμ Micro features a zoom optical range capable of covering the limited magnifications of existing multi-objective microscopes and all magnifications in between. A variety of video and eyepiece options afford viewing flexibility to meet specific operator preference and ensure maximum probing and inspection productivity.

On-Board LED Illumination
Adjustable 10-watt LED provides crisp contrast for both eyepiece and video viewing without the need for external light source.

Heavy-Duty Focus Block
Heavy-duty focus block offers 50mm precision travel to establish fine-focus and provide a stable and streamlined mounting interface.

Maximum Working Space
The unique single-objective design and compact lower housing combine to offer spacious 360° working access for specialized tooling, instruments and probe tips. This increased work space safeguards against accidental contact damage for delicate subjects and assists in maintaining environmental chamber integrity where cleanroom conditions are required. This design further eliminates cumbersome nose turret manipulation and subject repositioning.

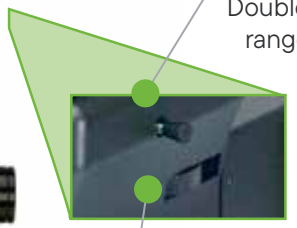
Optimized for 1/2" Cameras
Standard C-Mount ISO port provides camera flexibility to meet most any prober imaging requirement.

Trinocular Head Options
A-Zoomμ Micro comes standard with a fixed trinoc head and 10X eyepieces, yielding 50/50 or 100% uni-directional, erect image transmission. Tilting Binocular eyepiece and camera-only head options are also available.

Matching Fields
Achieve matching eyepiece and on-screen fields-of-view across the entire 7:1 zoom range when paired with 1/2-inch cameras.

Ergonomic Design
All magnification adjustments are located along right side of instrument and can be easily adjusted with a single hand.

Extended Magnification
Double your magnification range for greater viewing flexibility using the 2X optical amplifier.



7:1 Manual Zoom
Engage precision optomechanics with a smooth, graduated zoom dial for precision field-of-view adjustment across an expansive single-objective magnification range.

Single-Objective Design
Optimized for use with Optem M-Plan APO Long-Working Distance Objectives to meet a range of magnification requirements. Optem Objectives further increase working room with a generous 95mm parfocal distance from objective shoulder to image plane and up to 34mm working distance from front lens. Optem M-Plan APO Objectives deliver exceptional field flatness with zero chromatic aberration.

A-Zoomμ Micro accessories

Camera Port
Configuration

Tilting
Trinocular
Head

Fixed
Trinocular
Head

A-Zoomμ Micro - Models and Options

Camera port ONLY 38mm ISO	58-04-00-000
Fixed Trinocular Head (38mm ISO port), 78mm eyepiece extender	58-01-00-000
Fixed Trinocular Head (38mm ISO port), 130mm eyepiece extender	58-01-25-000
Fixed Trinocular Head (38mm ISO port), 35mm widefield eyepiece extender*	58-01-50-000
Fixed Binocular Head, 78mm eyepiece extender	58-02-00-000
Fixed Binocular Head, 130mm eyepiece extender	58-02-25-000
Fixed Binocular Head, 35mm widefield eyepiece extender*	58-02-50-000
Tilting Trinocular Head, 127mm Erecting eyepiece extender	58-03-00-000
Tilting Binocular Head, 127mm Erecting eyepiece extender	58-03-25-000

A-Zoomμ Micro - Performance Specifications

Long Working Distance Infinity-Corrected Objective	Working Distance	Visual Magnification	Visual Field-of-View (Ø mm)	Video FOV (mm) Low	High
Optem 2X M-Plan Apo	34mm	22X – 152X	10.1 – 1.44	6.1 x 8.1	0.87 x 1.15
Optem 5X M-Plan Apo	34mm	54X – 381X	4.0 – 0.58	2.4 x 3.2	0.35 x 0.46
Optem 10X M-Plan Apo	34mm	109X – 762X	2.0 – 0.29	1.2 x 1.6	0.17 x 0.23
Optem 20X M-Plan Apo	20mm	218X – 1525X	1.0 – 0.14	0.6 x 0.8	0.09 x 0.12
Optem 50X M-Plan Apo	13mm	545X – 3812X	0.4 – 0.06	0.24 x 0.32	0.03 x 0.05

Optem - Long Working Distance Objectioves

Optem M-Plan APO, Infinity-Corrected	58-04-00-000
• 2X / 0.055NA / 34mm WD	28-21-02-000
• 5X / 0.14NA / 34mm WD	28-21-05-000
• 10X / 0.30NA / 34mm WD	28-21-10-000
• 20X / 0.42NA / 20mm WD	28-21-11-000
Fixed Binocular Head, 130mm eyepiece extender	58-02-25-000
• 50X / 0.55NA / 13mm WD	28-21-50-000

Enabling the future
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