

digital  
microscopes  
ZUZI



## ZUZI digital microscopes

The new series of built-in videocamera microscopes allows an easy image capture and transfer to computer. They are supplied totally equipped, including TSView image capture and processing software.

The whole range of Zuzi digital microscopes are provided with an excellent optical quality and durability of their components, thus being very useful for educational purposes.



## microscopes series 135: Digital microscope, model 135/6

[01] Monocular head, 30° inclined, being more easy-to-use for those students that are starting in microscopy.

[02] Quadruple nosepiece with the most commonly used achromatic objectives (4x, 10x and 40x)

[03] Mechanical stage with translation knobs and with graduated scales t both sides.

[04] Coaxial coarse and fine focusing knobs to operate easier and faster. Provided with tension ring and focusing upper limit blocking lever.

[05] Adjustable Abbe condenser with iris diaphragm and filter holder.

[06] Power source by LED diode, with a longer life time than that of conventional halogen lamps and that allows a more homogeneous sample illumination.

## microscopes series 135: Digital microscope, model 135/7

[01] The same features as previous model but with binocular head for those applications that require a more prolonged observation, since it allows a more comfortable visualization through both eyes.

[1] Quadruple nosepiece

[2] Mechanical stage with translation knobs

[3] Coaxial coarse and fine focusing knobs

[4] Adjustable Abbe condenser



ZUZI digital microscopes

digital microscopes  
series 135:  
**technical  
features**



Code	50135006	50135007
Head	Digital, monocular	Digital, binocular
Eyepieces	WF10x/18mm	
Nosepiece	Quadruple	
Objectives	Achromatic 4x, 10x and 40x	
Stage	140x140 mm; Double layer mechanical stage with moving clamp	
Condenser	Abbe A.N. 1.25 with iris diaphragm and filter holder	
Focus	Coaxial fine and coarse; fine focusing knob with scale 0.002 mm	
Illumination	White LED with intensity regulation	
Power	AC 85 – 230 V	
Camera resolution	1280x1024 pixels, 1.3 Mp	
Output	USB 2.0 port	

**digital microscopes**  
**series 135:**  
**equipment parts**



1 Monocular head, 30° inclined

2 Quadruple nosepiece with the most commonly used achromatic objectives (4x, 10x and 40x)

4 Adjustable Abbe condenser with iris diaphragm and filter holder.



1 Binocular head, 30° inclined

2 Quadruple nosepiece with the most commonly used achromatic objectives (4x, 10x and 40x)

3 Mechanical stage with translation knobs and with graduated scales t both sides.

4 Adjustable Abbe condenser with iris diaphragm and filter holder.

## microscope series 148: Digital microscope, model 148/7

Model 148/7 is the most advanced model within Zuzi digital microscopes; thanks to a 3 Mp video camera with 1/2" sensor it is specially aimed to be used at university and professional level:

[01] Siedentopf-type binocular head, 30° inclined with interpupillary distance adjustment and diopter correction for a more comfortable observation during prolonged time.

[02] Wide field eyepieces suitable for users with glasses

[03] Lever for blocking light beam to the video camera in case image capture is not necessary.

[04] Inverted quadruple nosepiece for handling the slide more easily.

[05] Achromatic objectives 4x, 10x, 40x (R) and 100x(R)(I)

[06] Large dimension (180x150 mm) mechanical stage with translation knobs at a lower position for a more comfortable operation. With graduated scales along both axes of the stage for an easier localization of structures of interest.

[07] Clamp to hold up to two slides at the same time, being ideal observe and compare serial or specular sections.

[08] Coaxial fine and coarse focusing knobs at a lower position for an easier and more comfortable access. Provided with tension ring and focusing upper limit blocking lever. Fine focusing knobs are graduated.

[09] Köhler illumination system with graduated field and aperture diaphragms and height adjustable Abbe condenser for a better control of illumination.

[10] Power source by LED diode, with a longer life time than that of conventional halogen lamps and that allows a more homogeneous sample illumination.

[1] Siedentopf-type binocular head, 30° inclined

[2] Inverted quadruple nose-piece

[3] Large dimension (180x150 mm) mechanical stage with translation knobs

[4] Köhler illumination system with graduated field and aperture diaphragms

[5] Coaxial fine and coarse focusing knobs



digital microscope  
series 148:  
equipment parts



1

Siedentopf-type binocular head, 30° inclined with interpupillary distance adjustment and diopter correction

2

Inverted quadruple nosepiece for handling the slide more easily.

3

Large dimension (180x150 mm) mechanical stage with translation knobs at a lower position for a more comfortable operation.

4

Köhler illumination system with graduated field and aperture diaphragms and height adjustable Abbe condenser for a better control of illumination.

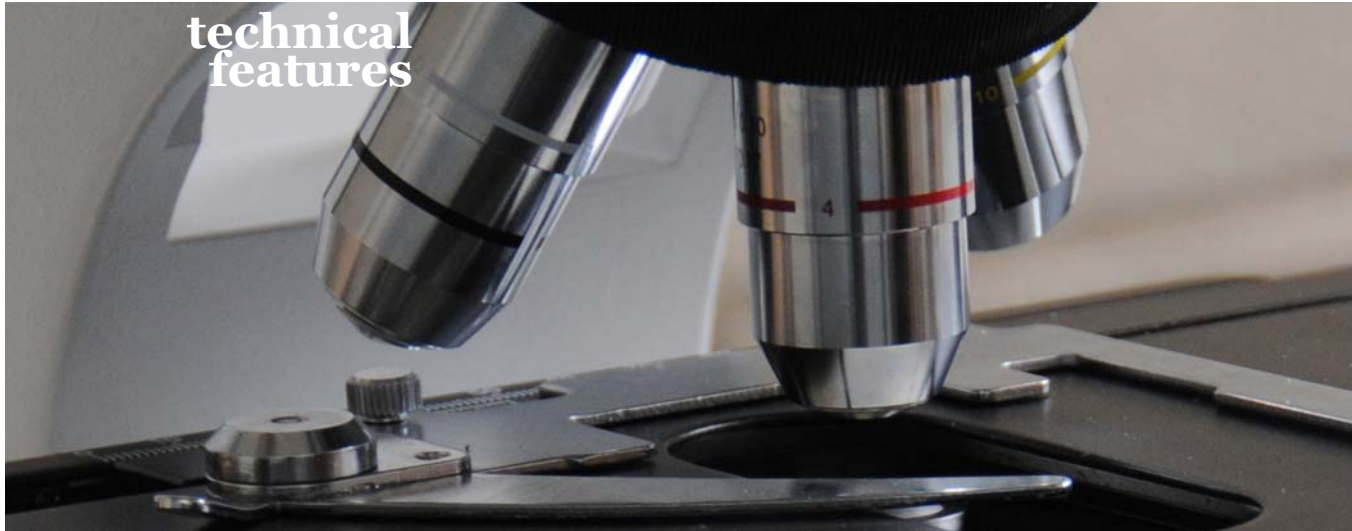
5

Coaxial fine and coarse focusing knobs at a lower position for an easier and more comfortable access.

ZUZI digital microscopes

**digital microscope  
digital serie 148:**

**technical  
features**



Code	50148007
Head	Digital, binocular, 30° inclined
Eyepieces	WF10x/22mm
Nosepiece	Quadruple
Objectives	Achromatic 4x, 10x, 40x and 100x
Stage	180x150 mm; Double layer mechanical stage with moving clamp
Condenser	Abbe A.N. 1.25 with graduated aperture diaphragm and filter holder
Precondenser	With graduated field diaphragm
Focus	Coaxial fine and coarse; fine focusing knob with scale 0.002 mm
Illumination	White LED with intensity regulation
Power	AC 85 – 230 V
Camera resolution	2048x1536 pixels, 3.0 Mp
Output	USB 2.0 port

## Video camera specifications



Resolution	1.3 Mp	3 Mp
Sensor	1/3"	1/2"
Pixel size	3.6x3.6 $\mu\text{m}$	3.2x3.2 $\mu\text{m}$
Resolution	1280x1024	2048x1536
Filter	RGB Bayer pattern	RGB Bayer pattern
Max. Frame rate	15 fps (1280x1024)	11 fps (2048x1536)
	30 fps (640x480)	30 fps (640x480)
RGB output	8 bit	8 bit
Exposure control	Auto/Manual	Auto/Manual
Exposure time	1 ms – 0.3 s	1 ms – 0.3 s
White balance	Auto/Manual	Auto/Manual
Scan mode	Progresivo	Progresivo
Sensibility	1.0 V/Lux-seg (550 nm)	1.0 V/Lux-seg (550 nm)
S/N rate	44 dB	43 dB
Dinamic range	>71 dB	>61 dB
Interface	USB 2.0/480 Mb/s	USB 2.0/480 Mb/s
USB cable	2 m	2 m
Power	USB 2.0	USB 2.0
Working temperature	0-60° C	0-60° C
Humidity	45-85%	45-85%
Storage temperature	-20/70° C	-20/70° C

## Video camera software TS VIEW

Features of TSView software

- [01] Previsualization and capture of images and videos
- [02] 3 image formats: .jpeg, .bmp and .raw
- [03] Possibility of setting a system for automatic and continuous saving the image.
- [04] Measurement of length, angle, perimeter and area of different figures (circle, rectangle, etc.).
- [05] Particle count
- [06] Different filters and tools for modification and processing of images.



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**AUXILAB S.L.**

Material de laboratorio  
Laboratory supplies