

DESCRIPTION

ACUCAL Video microscope can create high resolution images and videos with excellent color reproduction. The 3-D image allows samples to be examined with greater clarity and permits the precise manipulation of samples during magnification in a big and comfortable working space.

ACU3D series is a fast and easy way to create high resolution images of your samples, with calibrated 2D scales and high quality 3D models with accurate point heights and profile.



FEATURES



- 01 Two observation mode:**
2D observation
360 degree rotation
3D observation



2D mode



3D mode

- 02 Switch mode:**
Push and pull switch, simple and convenient



- 03 LED ring light with 4 zones control**
Add side LED ring light, The side light 360 degree rotates with the 3D body.



which perfectly solves the problem of light dark angle
The two light sources are controlled by independent switch



Side lamp OFF



Side lamp ON

Front lamp:267 pcs LED quantity,6000K color temperature
Side lamp:31 pcs LED quantity,6000K color temperature

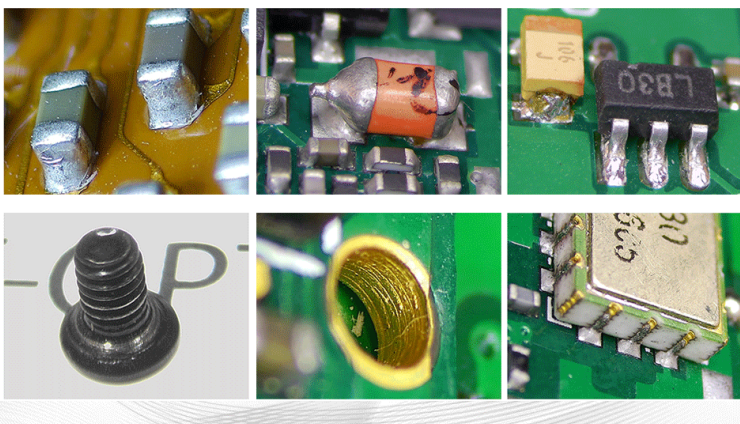
- 04 4K HDMI measuring camera**

1/1.8" SONY sensor
3840*2160 30FPS
Take photo, online preview
Built-in measurement system, EXCEL data can be exported

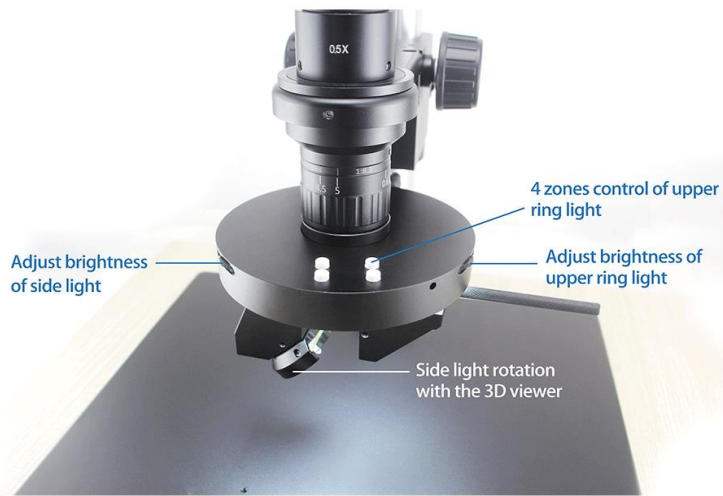


APPLICATIONS

It is widely used in electronic components, precision hardware, deep hole wall, life science, animal and plant morphology, criminal investigation and identification and so on



ILLUMINATION SYSTEM



SOFTWARE

Basic function

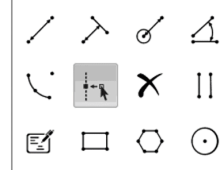
Take a picture and freeze image Automatic white balance, HDR wide dynamic, automatic edge finding, etc

Auxiliary Tools



Measuring function

Measure Tools

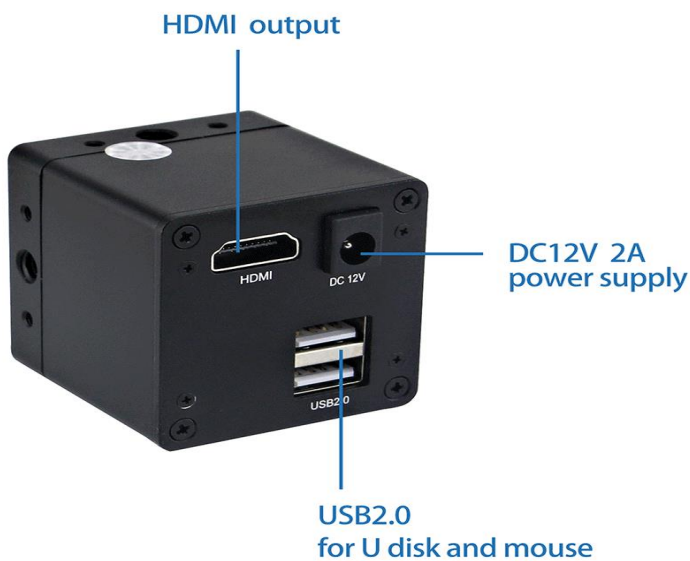


Built-in measuring software, can measure line distance, Angle, arc, rectangle, polygon, etc

The measurement accuracy can reach micron level



4K CAMERA



XY STAGE



TECHNICAL SPECIFICATION

Model	ACU3D-M
Optical Magnification	0.6X-5.0X zoom body with 0.5X C mount
Total Magnification	20X-174X (based on 22 inch monitor)
Working distance	In 2D:86mm In 3D:50mm
Zoom Ratio	1:8.3
Field of view	24.6x14.2 mm (At Highest Magnification) 2.9x1.7mm (At Lowest Magnification)
Lens mount	Standard C mount
Observation mode	2D observation
	360 degree rotation 3D observation
	Push and pull
Sensor	1/1.8" SONY CMOS
Resolution	3840x2160
Pixel	8.0MP
Frame	30 FPS
Pixel size	2.0 μ m x 2.0 μ m
Output	HDMI output
Memory function	Take photo to U disk
Measuring function	Support measuring of line, angle, circle, radian, rectangle, polygon etc., precision reaches the level of micron.
Front light	267 PCS LED, Color temperature 6000K, Brightness 0-100% adjustable
Side light	31 PCS LED, color temperature 6000K, Brightness 0-100% adjustable
Base size	330*300mm
Focus	Manual Coarse focus
Height of post	318mm
Mechanical Stage	Stage dimension(LxWxH):180x155x27mm (Optional)
XY Travel range	75x56mm (Optional)

MAIN FEATURES

- Microscope have built-in software & built in internal memory via USB drive plugged into the microscope to view, capture ,store, retrieve and measure the specimens under observation.
- Image captured stored in USB drive plugged into the microscope.
- Microscope connected to a standard LED monitor to its internal memory for viewing the images and for measurement without being connected to a separate CPU of a PC/Computer.
- Measurement Capability :
 - a) Measure arc, angle, distance between two points etc. in geometrical shapes such as line, circle, rectangle, triangle and . polygons.
 - b) converting the measurements taken to excel sheets.
- Operation of the Microscope :
 - a) manual adjustment knobs for adjusting zoom and working distance.
 - b) operate by a USB mouse for measurement on captured images and for saving images.
- Communication Ports :
 - a) One HDMI Port for connecting the monitor
 - b) Two USB ports (one for USB disk and one for mouse).
- Observation Modes
 - a) 3D Visual Inspection with 360 degrees rotation
 - b) 2D Visual Inspection and Measurement
- Standard supply : Microscope, USB Drive, Monitor with HDMI Cable, Wireless USB Mouse.
- Monitor : (Optional)
 - a) Display Diagonal Viewing Size : Min. 54.68 cm (21.5 inches), Horizontal Viewing Size : Min. 476.64 mm (18.77 inches), Vertical Viewing Size : Min. 268.11 mm (10.56 inches), Panel Type: TN (Twisted Nematic), Display Screen Coating: Anti-Glare, Viewing Angle: 160°/170° , Backlight Technology- LED, comfort view with flicker-free screen .
 - b) Contrast Ratio - 1000: 1 (typical), Aspect Ratio -16:9, Pixel Pitch : 0.248 mm x 0.248 mm, Pixel Per Inch (PPI):102, Maximum Preset Resolution:1920 x 1080 at 60 Hz.
 - c) Brightness-250 cd/m² (typical), Response Time-5 ms typical (Normal) (gray to gray)
 - d) Connectivity Ports : 1No. VGA, 1No. HDMI 1.4, 1No. HDMI HDCP 1.2, Power input - 100 V AC to 240 V AC / 50 Hz or 60 Hz ± 3 Hz / 0.7 A (typical)
- USB Drive (Optional) : ultra- compact and portable USB flash drive, Memory Storage Capacity - 64 GB (min.), Hardware Interface shall be USB 3.0, flash memory type flash drive.
- Calibration : Calibration of the digital measuring microscope with master glass grid traceable to national standards.