

BS-1080 Series Monocular Zoom Microscope

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1. BS-1080 Monocular Zoom Microscope



BS-1080A/B



BS-1080C/D

Introduction

BS-1080 Series Monocular Zoom microscopes adopt apochromatic parallel optical imaging system and provide high resolution and sharp stereoscopic images. This series microscopes are designed for the applications in the fields of machine vision, industrial inspection and scientific research. Modularization product portfolio and excellent optical performance make them a better choice in these areas.

Features

1. Apochromatic parallel optical system

Adopt apochromatic parallel optical imaging system, use advanced multi-layer coating technology, excellently correct the imaging on the edge of field of view. Get high-resolution and high contrast images, naturally restore the true colors of observed objects. High repeat positioning accuracy.

2. Compact design

Compact design, so that all functions are concentrated in a tube, it is very suitable for the small installation space in modern equipment. High hardness wear-resistant aluminum alloy materials, anode oxidation surface treatment, and long service life.

3. Zoom ratio

Zoom ratio 1:8.3, zoom range 0.6x-5x, standard working distance 88mm, can meet the requirement of machine vision conventional imaging.

4. Diverse accessories

There are a variety of auxiliary lens and C-mount eyepiece adapter for option, make the system's optical magnification range 0.054x-1500x, working distance 2mm-270mm, object field of view 0.004mm-20mm. Adopt modular design, various additional accessories are optional to make the microscope a powerful device for your jobs.

5. Illumination

LED Ring light, polarizing illumination, coaxial illumination system are optional. Coaxial illumination adopts single high brightness 3W LED, color temperature 5500K, uniform lighting, suitable for high reflectivity surface precision detection and limited exterior lighting occasions. Available to observe different objects by using LED illumination or fiber optic illumination to meet different required.

Application

BS-1080 series Monocular Zoom Microscope are widely used in educational demonstration, agriculture research, industrial material, semi-conductor, integrated circuit board inspection area and so on. Widely used in electric equipment, semi-conductor, LCD and LED, for digital image observation, inspection and measurement.

Specification

Item	Specification	BS-1080A	BS-1080B	BS-1080C	BS-1080D
Optical System	Infinite apochromatic parallel optical system	●	●	●	●
Zoom Lens	Optical zoom magnification: 0.6X-5.0X (without click stop)	●		●	
	Optical zoom magnification: 0.6X-5.0X (with click stop)		●		●
Zoom ratio	1:8.3	●	●	●	●
Viewing head	Monocular tube with 10X/18mm eyepiece	○	○	○	○
Objective Angle Device	Objective angle device 90°, inverted image	○	○	○	○
	Objective angle device 90°, erect image	○	○	○	○
Mounting Size	Φ40mm	●	●	●	●
LCD Digital Camera	BLC-480A LCD digital camera with HDMI2.0, USB3.0 and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○	○	○	○
	BLC-480B LCD digital camera with HDMI2.0, USB2.0 and WIFI multi output, 30fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○	○	○	○
	BLC-580A LCD digital camera with HDMI2.0, USB, LAN and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○	○	○	○
	BLC-580AF LCD digital camera with HDMI2.0, USB and WIFI	○	○	○	○

	multi output, with built-in Auto Focus system, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.				
C-mount Adapter	0.3X C-mount adapter	○	○	○	○
	0.45X C-mount adapter	○	○	○	○
	0.5X C-mount adapter	○	○	○	○
	0.67X C-mount adapter	○	○	○	○
	0.75X C-mount adapter	○	○	○	○
	1.0X C-mount adapter	●	●	●	●
	1.5X C-mount adapter	○	○	○	○
	2X C-mount adapter	○	○	○	○
	3X C-mount adapter	○	○	○	○
	0.5X C-mount adapter with iris	○	○	○	○
	1.0X C-mount adapter with iris	○	○	○	○
Auxiliary Lens	1.0X Auxiliary Objective	●	●	●	●
	0.3X Auxiliary Objective	○	○	○	○
	0.4X Auxiliary Objective	○	○	○	○
	0.5X Auxiliary Objective	○	○	○	○
	0.6X Auxiliary Objective	○	○	○	○
	0.75X Auxiliary Objective	○	○	○	○
	1.5X Auxiliary Objective	○	○	○	○
	2.0X Auxiliary Objective	○	○	○	○
Infinite LWD Plan Achromatic Metallurgical Objective (MA200A)	5X/ NA=0.12, WD=26.1mm	○	○	○	○
	10X/ NA=0.25, WD=20.2mm	○	○	○	○
	20X/ NA=0.4, WD=8.8mm	○	○	○	○
	40X/ NA=0.6, WD=3.98mm	○	○	○	○
	50X/ NA=0.7, WD=3.68mm	○	○	○	○
	60X/ NA=0.75, WD=1.22mm	○	○	○	○
	60X/ NA=0.75, WD=3.18mm	○	○	○	○
	80X/ NA=0.8, WD=1.25mm	○	○	○	○
	100X/ NA=0.85, WD=0.4mm	○	○	○	○
Infinite LWD Plan Apochromatic Objectives (LWD M APO200A)	2X/ NA=0.055, WD=34.6mm	○	○	○	○
	3.5X/ NA=0.1, WD=40.93mm	○	○	○	○
	5X/ NA=0.13, WD=44.5mm	○	○	○	○
	10X/ NA=0.28, WD=34mm	○	○	○	○
	20X/ NA=0.29, WD=31mm	○	○	○	○
	50X/ NA=0.42, WD=20.1mm	○	○	○	○
Infinite LWD Plan Apochromatic Objectives (LWD M APO200B)	2X/ NA=0.075, WD=50mm	○	○	○	○
	4X/ NA=0.15, WD=36mm	○	○	○	○
	4.5X/ NA=0.18, WD=38mm	○	○	○	○
	20X/ NA=0.35, WD=29mm	○	○	○	○

Coaxial light Device	Coaxial device, does not include light source	○	○	●	●
	Polarized coaxial device, does not include light source	○	○	○	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○	○	○	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○	○	○	○
	BAL-52ASL LED side ring light, brightness adjustable	○	○	○	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○	○	○	○
	BAL-228AG LED four-zone ring light with frosted glass	○	○	○	○
	BAL-16P LED polarizing ring light, brightness adjustable	○	○	○	○
	BAL-52A LED Ring light, brightness adjustable	○	○	○	○
Back Light	BTL-60A LED back light	○	○	○	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○	○	●	●
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○	○	○	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○	○	○	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○	○	○	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○	○	○	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○	○	○	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○	○	○	○
Stage	BMS-302 X-Y moving stage	○	○	○	○
	BMS-303 X-Y moving stage	○	○	○	○
	BMS-311 X-Y measuring stage	○	○	○	○
	BMS-316A X-Y measuring stage	○	○	○	○
	BMS-316B X-Y measuring stage	○	○	○	○
	BMS-400A large working stage	○	○	○	○
	BMS-260A XY working stage	○	○	○	○
Connecting Ring	Mounting Adapter (39.6 to 45mm), used to connect the BS-1080A to 45mm focus arm	○	○	○	○
	Mounting Adapter (39.6 to 50mm), used to connect the BS-1080A to 50mm focus arm	○	○	○	○
	Metallurgical objective adapter (used to connect metallurgical objectives onto the zoom body)	○	○	○	○
Nosepiece	3 holes nosepiece, 20.3mm thread	○	○	○	○
	4 holes nosepiece, 20.3mm thread	○	○	○	○
	4 holes nosepiece, 26mm thread	○	○	○	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○	○	○	○
	BA2 Round type column plain stand with coarse focus arm,	○	○	○	○

transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.				
BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○	○	○	○
BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○	○	○	○
BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○	○	○	○
BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○	○	○	○
BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○	○	○	○
BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○	○	○	○
BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○	○	○	○
BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○	○	○	○
BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○	○	○	○
BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○	○	○	○
BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○	○	○	○
BFA-1 coarse focus arm. Stroke: 50mm.	○	○	○	○
BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○	○	○	○
BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○	○	○	○
BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○	○	○	○
BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○	○	○	○
BFA-6 N interface coarse focus arm. Stroke: 50mm.	○	○	○	○

	BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○	○	○	○
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Note: ●Standard Outfit, ○Optional

Optical Parameter

Auxiliary Objectives	CCD C-mount Adapter							
		0.3X	0.45X	0.5X	1.0X (Standard)	1.5X	2.0X	3.0X
1.0X WD:86mm	Total Mag.	0.18-1.5X	0.27-2.25X	0.3-2.5X	0.6-5.0X	0.9-7.5X	1.2-10X	1.8-15X
	FOV (mm)	40*22.5- 4.8*2.7	26.7*15- 3.2*1.8	24*13.5- 2.8*1.6	12*6.7- 1.4*0.8	8*4.5- 0.9*0.5	6*3.3- 0.7*0.4	4*2.2- 0.4*0.2
0.3X WD:270mm	Total Mag.	0.05-0.45X	0.08-0.67X	0.09-0.75X	0.18-1.5X	0.27-2.25X	0.36-3X	0.54-4.5x
	FOV (mm)	144*81- 16*9	90*50.6- 10.7*6	80*45- 9.6*5.4	40*22.5- 4.8*2.7	26.6*15- 3.2*1.8	20*11.2- 2.4*1.3	13.3*7.5- 1.6*0.9
0.4X WD:195mm	Total Mag.	0.07-0.57X	0.1-0.85X	0.11-0.95X	0.22-1.9X	0.34-2.85X	0.45-3.8X	0.68-5.7X
	FOV (mm)	102.8*57.8- 12.6*7.1	72*40.5- 8.5*4.7	65.4*36.8- 7.5*4.2	32.7*18.4- 3.7*2.1	21.2*11.9- 2.5*1.4	16*9- 1.8*1.1	10.5*5.9- 1.2*0.7
0.5X WD:160mm	Total Mag.	0.09-0.75X	0.13-1.12X	0.15-1.25X	0.3-2.5X	0.45-3.75X	0.6-5.0X	0.9-7.5X
	FOV (mm)	80*45- 9.6*5.4	55.3*31.1- 6.4*3.6	48*27- 5.73.2	24*13.5- 2.8*1.6	16*9- 1.9*1.1	12*6.7- 1.4*0.8	8*4.5- 0.9*0.5
0.6X WD:130mm	Total Mag.	0.1-0.9X	0.16-1.35X	0.18-1.5X	0.36-3X	0.54-4.5X	0.72-6X	1.08-9X
	FOV (mm)	72*40.5- 8*4.5	45*25.3- 5.3*3	40*22.5- 4.8*2.7	20*11.2- 2.4*1.3	13.3*7.5- 1.6*0.9	10*5.6- 1.2*0.6	6.6*3.7- 0.8*0.45
0.75X WD:105mm	Total Mag.	0.13-1.12X	0.2-1.68X	0.22-1.88X	0.45-3.75X	0.68-5.6X	0.9*7.5X	0.68-11.2X
	FOV (mm)	55.3*31.1- 6.4*3.6	36*20.2- 4.2*2.4	32.7*18.4- 3.8*2.1	16*9- 1.9*1.1	10.6*5.9- 1.3*0.7	8*4.5- 0.9*0.5	10.6*5.9- 0.6*0.3
1.5X WD:50mm	Total Mag.	0.27-2.25X	0.4-3.37X	0.45*3.75X	0.9-7.5X	1.35-11.25X	1.8-15X	2.7-22.5X
	FOV (mm)	26.6*15 3.2*1.8	18*10.1- 2.1*1.2	16*9- 1.9*1.1	8*4.5- 0.9*0.5	5.3*3- 0.6*0.3	4*2.2- 0.4*0.2	2.6*1.5- 0.3*0.1
2.0X WD:39mm	Total Mag.	0.36-3X	0.54-4.5X	0.6-5.0X	1.2-10X	1.8-15X	2.4-20X	3.6-30X
	FOV (mm)	21.6*11.2- 3.2*1.8	13.3*7.5- 2.1*1.2	12*6.7- 1.9*1.1	6*3.3- 0.9*0.5	4*2.2- 0.6*0.3	3*1.6- 0.4*0.2	2*1.1- 0.3*0.1

		2.4*1.3	1.6*0.9	1.4*0.8	0.7*0.4	0.4*0.2	0.3*0.2	0.2*0.1
<p>Remark: Total magnification of lens = Magnification of zoom body × CCD adapter magnification × Objective magnification, the range of Field of View is based on 1/2"7.2x4.05mm Sensor Camera, FOV= the size of camera sensor / total Optical Magnification.</p>								

Accessories



C-mount adapter



C-mount adapter with iris



Auxiliary objectives



Coaxial device



Polarized coaxial device



3 holes nosepiece



4 holes nosepiece(20.3mm thread)



4 holes nosepiece(26mm thread)



Objective angle device 90°(inverted image)



Objective angle device 90°(erect image)



Monocular tube eyepiece



two output C-mount



BS-1080A with coaxial device



BS-1080A with coaxial device and APO objective



BS-1080A with coaxial device and triple nosepiece



BS-1080A with objective angle device 90° (inverted image)



BS-1080A with objective angle device 90° (erect image)



BS-1080A with two output C-mount



BS-1080A with monocular tube eyepiece



BS-1080LCD1/2/3/4



BS-1080A with BAL-52A, BA1 and LCD screen holder



LCD screen holder



BS-1080A with BAL-52A and BA1 stand

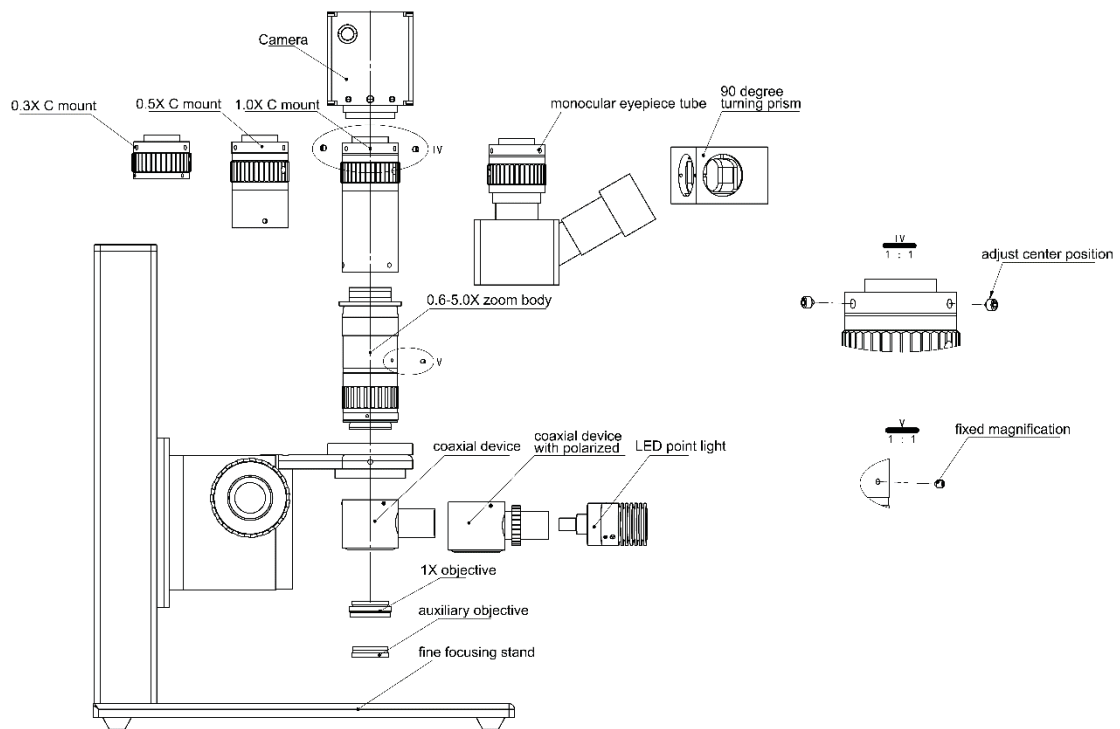


BS-1080A with BAL-52A and BA3 stand

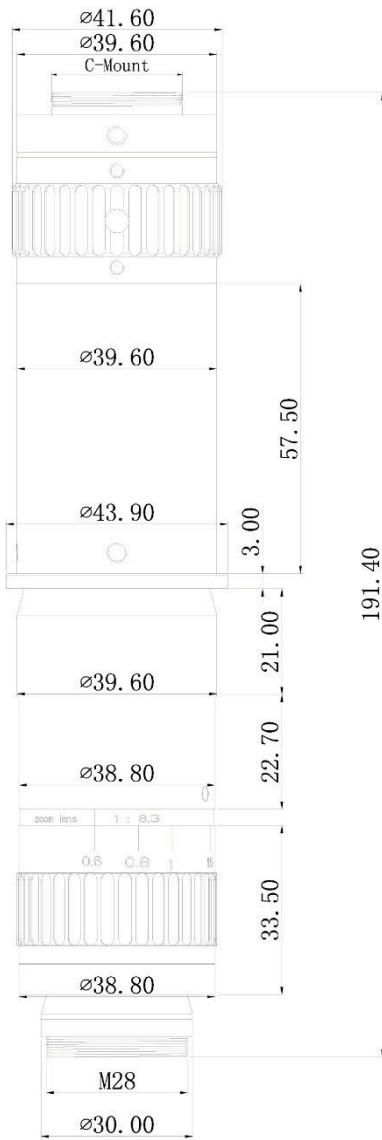


BS-1080A with BA11 stand

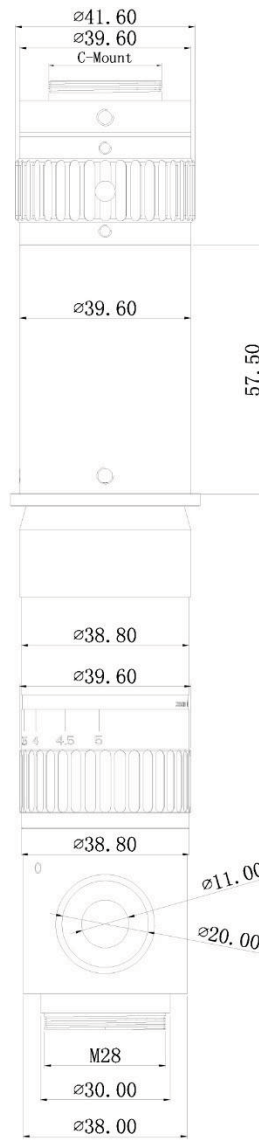
System Diagram



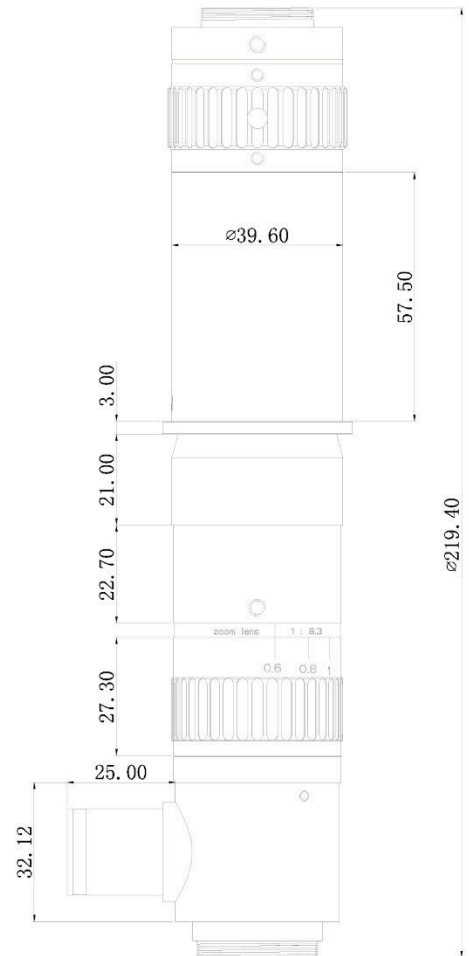
Dimension



BS-1080A



BS-1080A with coaxial device Dimension



Unit: mm

2. BS-1080LCD5M All-in-One Measuring Video Microscope



BS-1080LCD5M

Introduction

BS-1080LCD5M All-in-One Measuring Video Microscope adapts unique all-in-one design, simple and convenient to install and use. No need to install software, connected to HDMI monitor directly. This microscope is designed for the applications in the fields of machine vision, industrial inspection and scientific research. Modularization product portfolio and excellent optical performance make them a better choice in these areas.

Features

1. All-in-one design

0.6-5X zoom magnification, working distance is 86mm. 1920*1080 full HDMI image with excellent color reduction. Unique all-in-one machine design, simple and convenient to install and use.

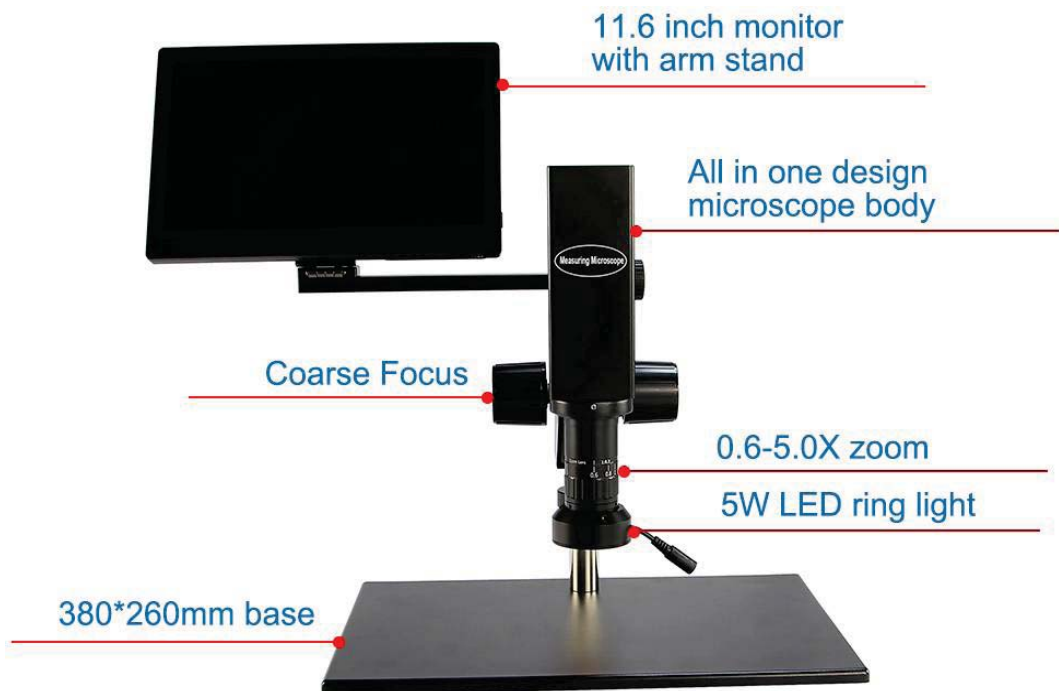
2. No need for PC

With built-in smart measuring software, there is no need for PC, connected to monitor directly. Support taking photos and video to U disk. And the users can browse the photo directly.

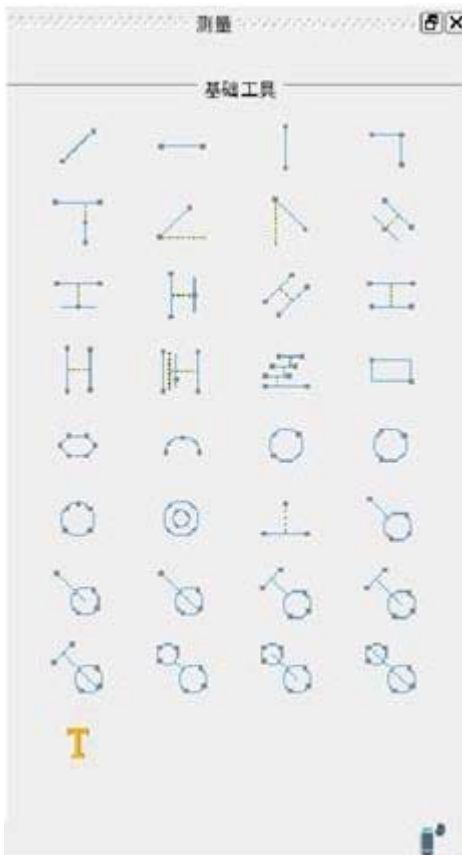
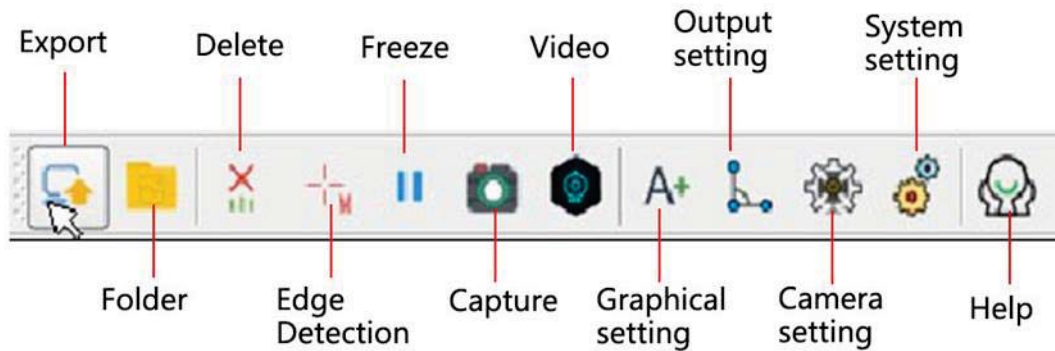
Application

BS-1080LCD5M All-in-One Measuring Video Microscope is widely used in industrial inspection, auto system, electronic communication, semiconductor, biomedical and scientific research, etc.

Product Details



Basic Function



Support two-point line, point to line, angle between two lines, parallel lines, rectangles, polygons, radians, circles, center of circles, line to circle, center distance, concentric circles and other measurements.

Specification

Item	Specification	BS-1080LCD5M
Zoom Lens	0.6X-5.0X zoom lens with 0.5X C-mount	•
Zoom method	Auto zoom	•
Zoom ratio	1:8.3	•
Built-in Camera	Digital camera with HDMI output, resolution: 1920*1080, frame: 60fps, sensor: 1/3", pixel size: 2.75μm *2.75μm. Support measuring of point, line, parallel lines, circle, arc, angle, rectangle, polygon etc. Take photo and video to U disk.	•
Monitor	11.6-inch LCD with arm stand, NTSC/PAL compatible, resolution: 1920*1080, brightness: 400cd	•

Auxiliary Lens	1.0X Auxiliary Objective	●
	0.3X Auxiliary Objective	○
	0.4X Auxiliary Objective	○
	0.5X Auxiliary Objective	○
	0.6X Auxiliary Objective	○
	0.75X Auxiliary Objective	○
	1.5X Auxiliary Objective	○
	2.0X Auxiliary Objective	○
	20X/ NA=0.35, WD=29mm	○
Coaxial light Device	Coaxial device, does not include light source	○
	Polarized coaxial device, does not include light source	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	●
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○

	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○
	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○
	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	●
	BFA-1 coarse focus arm. Stroke: 50mm.	○
	BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
	BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
	BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
	BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Model	BS-1080LCD5M	
Microscope Body	Optical magnification	0.6-5.0X with 0.5X C-mount adapter
	Total magnification	14-120X
	FOV	17.6mm*9.9mm-2.1mm*1.2mm
	Working distance	86mm
	Resolution	1920*1080
	Frame	60fps
	Pixel	2.0MP

	Chip structure	HIS+ARM
	Operation system	LINUX 3.10
	Kernel structure	Dual-kernel Cortex-A9
	Sensor	1/3"
	Pixel size	2.75μm *2.75μm
	Output	HDMI
Monitor	Size	11.6 inch, with arm stand, angle adjustable
	Resolution	1920*1080
	Brightness	400cd

Accessories



Auxiliary objectives

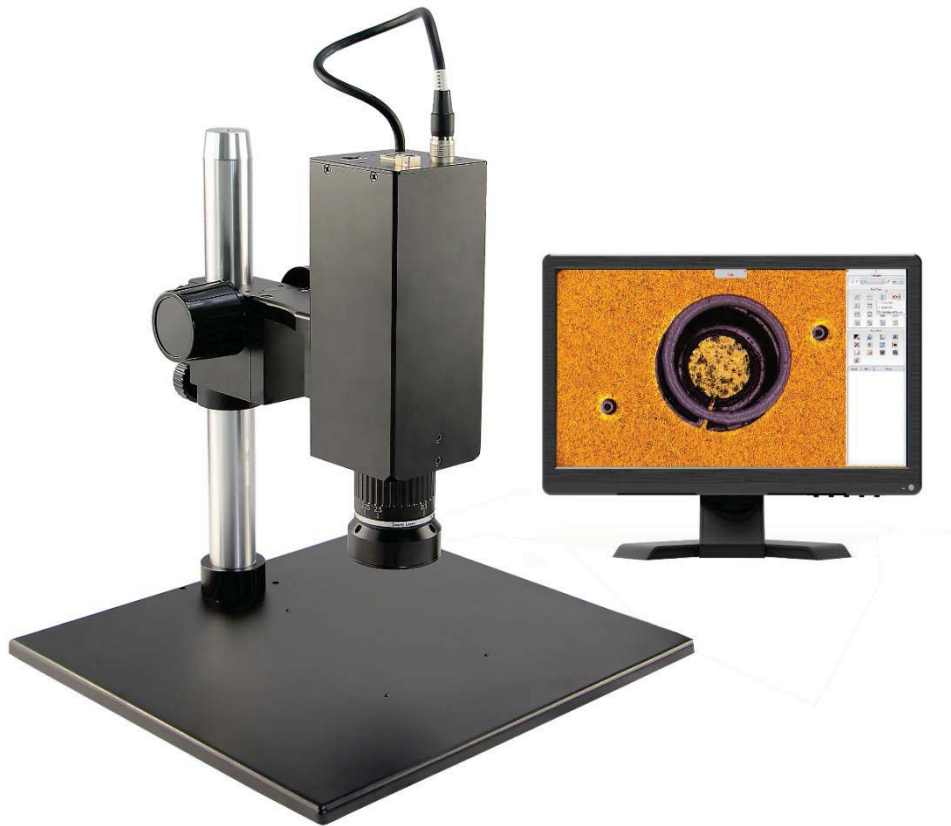


Coaxial device



Polarized coaxial device

3. BS-1080FCA2/FCB2 Measuring Video Microscope



BS-1080FCA2/FCB2 with monitor

Features

1. Parallel path optical system

Two optical magnification zoom body options: 0.3-2.5X and 0.6-5.0X. Parallel path optical system, high definition and high contrast imaging.

2. All-in-one design

All in one design, easy to install and can be paired with different stands. 1920*1080 high resolution imaging, 60fps, support capture and save photos.

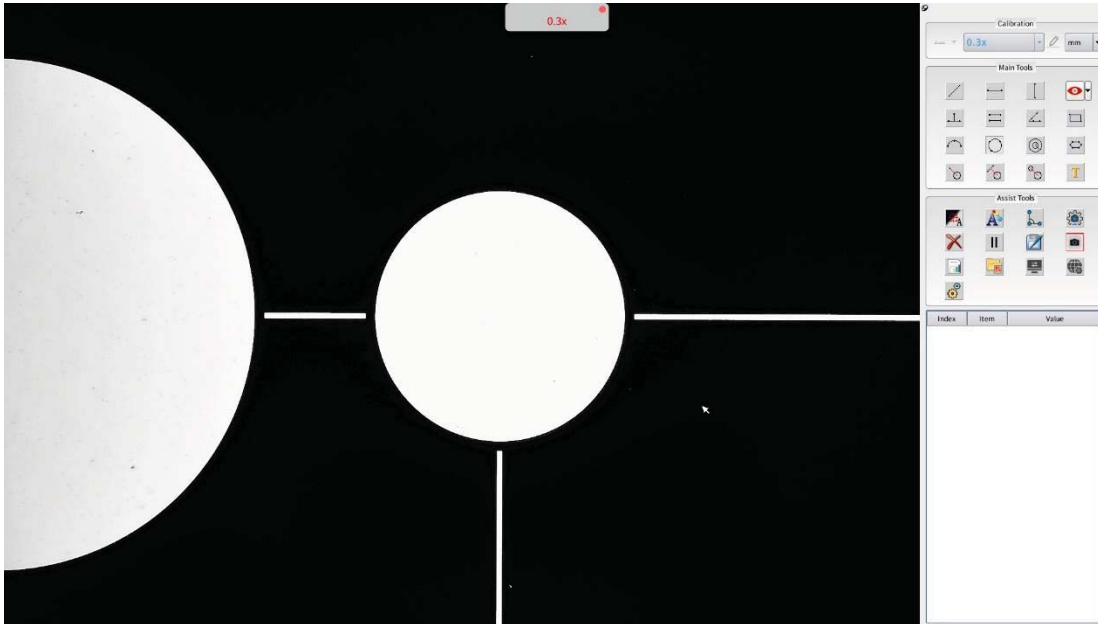
3. Measuring function

The entire software combines both measurement and overlay functions, making it simple and easy to understand. It can display or close function windows according to user needs. Support the measurement of lines, circles, sectors, concentric circles, center-to-center distance, angle, arbitrary polygon, etc. Measuring data can be kept in photo or export with excel sheet.

4. Calibration free

The optical magnification and image magnification are displayed in real time. The users don't need to calibrate again, measuring directly.

Operation windows

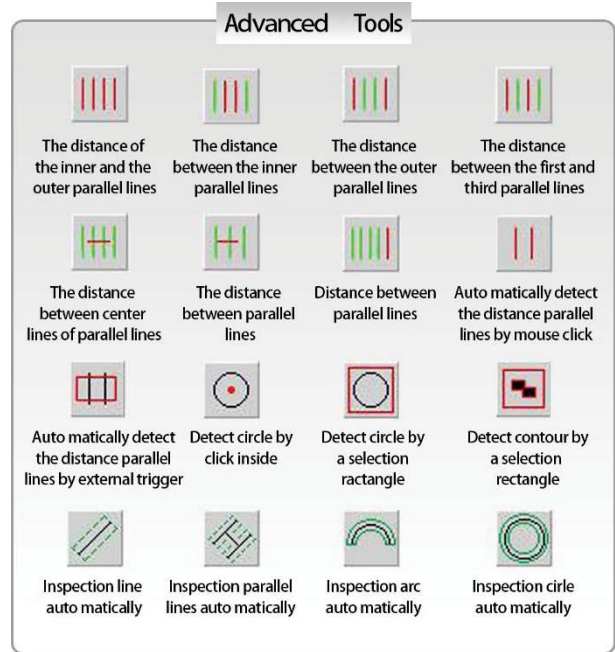
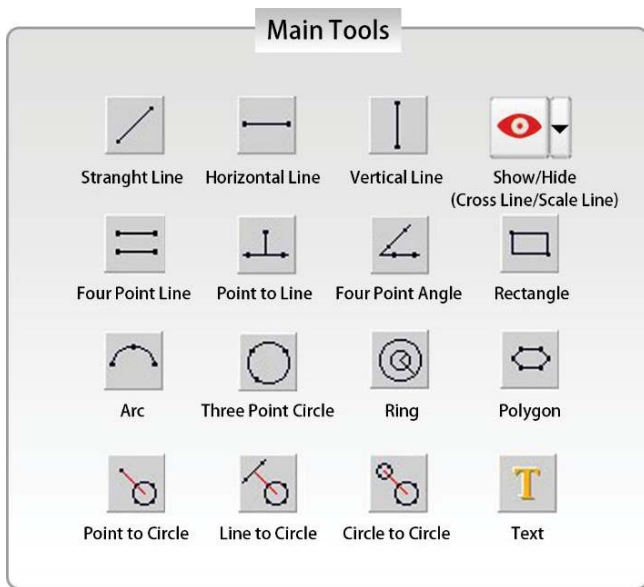


Assist Tools

Edge Detection, Graphics Setting, Output setting, Camera setting, Freeze, Capture, Network Settings, System setting etc.

Measuring function

Support measuring such as line distance, circular, concentric circles, center-to-center distance, angle, polygon, etc. Measuring data can be kept in photo or export with excel sheet.



Application

BS-1080FCA2/FCB2 Measuring Video Microscopes are widely used in industrial inspection, auto system, electronic communication, semiconductor, biomedical and scientific research, etc.

Product Details



Integrated body design, built-in measurement program with mouse operation. Images can be saved to USB disk, can also be directly transferred to the computer through the network port.



Specification

Item	Specification	BS-1080FCA2	BS-1080FCB2
Optical System	Parallel optical system	•	•
Zoom Lens	0.6X-5.0X zoom body with 0.5X C-mount adapter	•	
	0.6X-5.0X zoom body		•
Zoom ratio	1:8.3	•	•
Built-in Camera	Digital camera with high resolution HDIM output, resolution: 1920*1080, frame: 60fps, senser: 1/2", pixel size: 3.75μm *3.75μm. Support measuring of point, line, parallel lines, circle, arc, angle, rectangle, polygon etc. Take photo and video to USB disk or transferred to PC by network interface.	•	•
Auxiliary Lens	1.0X Auxiliary Objective	•	•
	0.3X Auxiliary Objective	○	○
	0.4X Auxiliary Objective	○	○
	0.5X Auxiliary Objective	○	○
	0.6X Auxiliary Objective	○	○
	0.75X Auxiliary Objective	○	○
	1.5X Auxiliary Objective	○	○
	2.0X Auxiliary Objective	○	○
Infinite LWD Plan Achromatic	5X/ NA=0.12, WD=26.1mm	○	○
	10X/ NA=0.25, WD=20.2mm	○	○
	20X/ NA=0.4, WD=8.8mm	○	○

Metallurgical Objective (MA200A)	40X/ NA=0.6, WD=3.98mm	○	○
	50X/ NA=0.7, WD=3.68mm	○	○
	60X/ NA=0.75, WD=1.22mm	○	○
	60X/ NA=0.75, WD=3.18mm	○	○
	80X/ NA=0.8, WD=1.25mm	○	○
	100X/ NA=0.85, WD=0.4mm	○	○
Infinite LWD Plan Apochromatic Objectives (LWD M APO200A)	2X/ NA=0.055, WD=34.6mm	○	○
	3.5X/ NA=0.1, WD=40.93mm	○	○
	5X/ NA=0.13, WD=44.5mm	○	○
	10X/ NA=0.28, WD=34mm	○	○
	20X/ NA=0.29, WD=31mm	○	○
	50X/ NA=0.42, WD=20.1mm	○	○
Infinite LWD Plan Apochromatic Objectives (LWD M APO200B)	2X/ NA=0.075, WD=50mm	○	○
	4X/ NA=0.15, WD=36mm	○	○
	4.5X/ NA=0.18, WD=38mm	○	○
	20X/ NA=0.35, WD=29mm	○	○
Coaxial light Device	Coaxial device, does not include light source	○	○
	Polarized coaxial device, does not include light source	○	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	●	●
	BAL-52AP LED polarizing ring light, brightness adjustable	○	○
	BAL-52ASL LED side ring light, brightness adjustable	○	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○	○
	BAL-228AG LED four-zone ring light with frosted glass	○	○
	BAL-16P LED polarizing ring light, brightness adjustable	○	○
	BAL-52A LED Ring light, brightness adjustable	○	○
Back Light	BTL-60A LED back light	○	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○	○
Stage	BMS-302 X-Y moving stage	○	○
	BMS-303 X-Y moving stage	○	○
	BMS-311 X-Y measuring stage	○	○
	BMS-316A X-Y measuring stage	○	○
	BMS-316B X-Y measuring stage	○	○
	BMS-400A large working stage	○	○
	BMS-260A XY working stage	○	○

Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	•	•
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○	○
	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○	○
	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○	○
	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○	○
	BFA-1 coarse focus arm. Stroke: 50mm.	○	○
	BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○	○
	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○	○
BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○	○	
BFA-6 N interface coarse focus arm. Stroke: 50mm.	○	○	

	BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○	○
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Note: ●Standard Outfit, ○Optional

Optical Parameter

Model		BS-1080FCA2	BS-1080FCB2
Lens	Optical Magnification	0.3-2.5X	0.6-5.0X
	FOV	24mm*13.5mm-2.88mm*1.62mm	12mm*6.8mm-1.44mm*0.81mm
	Zoom Ratio	1:8.3	
	Working Distance	86mm	
Camera	Chip Structure	HIS+ARM	
	Resolution	1920*1080	
	Frame	60fps	
	Sensor	1/2"	
	Pixel Size	3.75μm *3.75μm	
	Output	High resolution HDMI output	
	Measuring	Line segment, circular, sector, concentric circles, center distance, angle, arbitrary polygon, etc.	
	Storage	Take photos to USB disk or directly transferred to PC with network interface	

Accessories



Auxiliary objectives



Coaxial device



Polarized coaxial device



BS-1080FCA2/FCB2



BS-1080FCA2/FCB2 with BA2 stand



BS-1080FCA2/FCB2 with BA5 stand



BS-1080FCA2/FCB2 with BA6 stand



BS-1080FCA2/FCB2 with BA7 stand



BS-1080FCA2/FCB2 with coaxial device with BPL-3A LED point light, APO objective and BA7 stand

4. BS-1080FCM Motor Zoom Measuring Video Microscope



BS-1080FCM

Features

1. High precision optical system

0.6-5.0X automatic electric zoom, smart cruise setting. High precision optical system design, continuous cruise keeps the center same. Repeated precision can reach 0.001 μ m.

2. No need for PC and software

High precision electronic feedback system, no need for PC. Connect HDMI monitor directly, no need to install software. There is built-in smart measuring software, one key to save high-definition images and measurement data. Operate directly with a mouse, easy and convenient.

3. Calibration free

The optical magnification and image magnification are displayed in real time. The users don't need to calibrate again, measuring directly.

4. Modular design

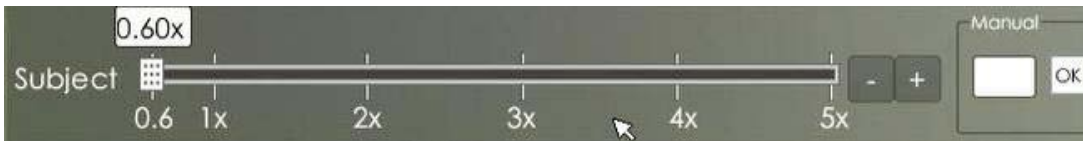
Modular design, various magnification CCD mount and auxiliary objective are optional. There are also different function modules, such as coaxial device, polarized coaxial device, fine focus objective device, DIC element etc.

5. Durable and sturdy

High hardness aluminum alloy material, anodic oxidation treatment, more durable in use.

Operation windows

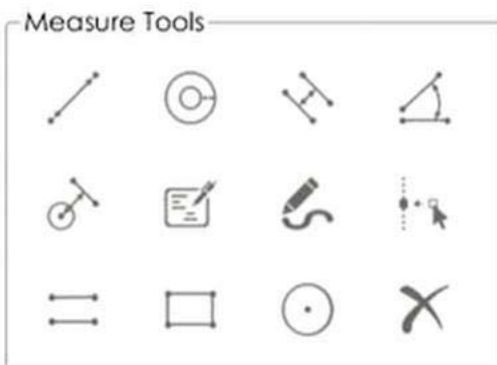
0.6X-5.0X electric stepless zoom: You can adjust and magnification from 0.6X-5.0X.



Real time display optical magnification and imaging magnification.



Basic function: automatic white balance, auto exposure, taking photo and video to U disk, preview image online, camera setting, etc.



Measuring function: support point, line distance, parallel lines, circle, arc, rectangle, polygon, etc.

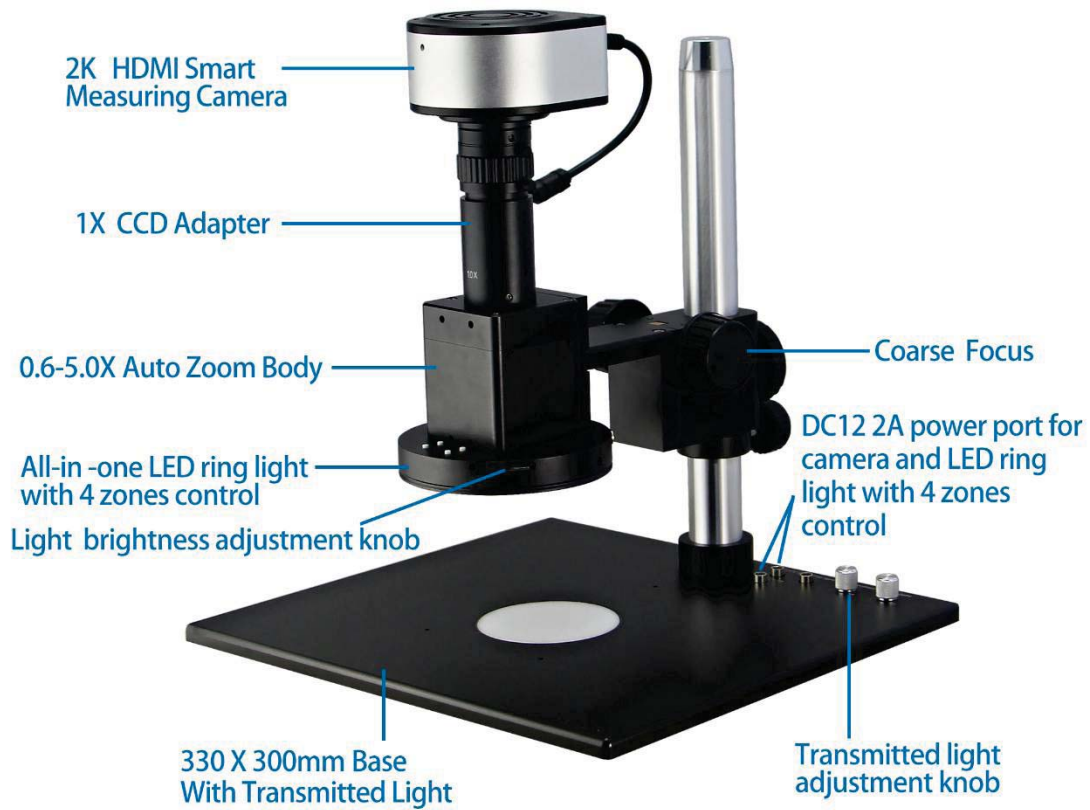


Built-in high precision electronic feedback system, smart cruise scanning setting.

Application

BS-1080FCM Motor Zoom Measuring Video Microscope is widely used in industrial inspection, auto system , electronic communication, semiconductor , biomedical and scientific research ,etc.

Product Details



Specification

Item	Specification	BS-1080FCM
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6X-5.0X	●
Zoom method	Auto zoom	●
Zoom ratio	1:8.3	●
Camera	Digital camera with high resolution HDIM output, resolution: 1920*1080, frame: 60fps, sensor: 1/2", pixel size: 3.75um*3.75um. Support measuring of point, line, parallel lines, circle, arc, angle, rectangle, polygon etc. Take photo and video to U disk.	●
C-mount Adapter	0.3X C-mount adapter	○
	0.45X C-mount adapter	○
	0.5X C-mount adapter	○
	0.67X C-mount adapter	○
	0.75X C-mount adapter	○
	1.0X C-mount adapter	●
	1.5X C-mount adapter	○
	2X C-mount adapter	○
	3X C-mount adapter	○
	0.5X C-mount adapter with iris	○
1.0X C-mount adapter with iris	○	
Auxiliary Lens	1.0X Auxiliary Objective	●
	0.3X Auxiliary Objective	○
	0.4X Auxiliary Objective	○
	0.5X Auxiliary Objective	○
	0.6X Auxiliary Objective	○
	0.75X Auxiliary Objective	○
	1.5X Auxiliary Objective	○
	2.0X Auxiliary Objective	○
Infinite LWD Plan Achromatic Metallurgical Objective (MA200A)	5X/ NA=0.12, WD=26.1mm	○
	10X/ NA=0.25, WD=20.2mm	○
	20X/ NA=0.4, WD=8.8mm	○
	40X/ NA=0.6, WD=3.98mm	○
	50X/ NA=0.7, WD=3.68mm	○
	60X/ NA=0.75, WD=1.22mm	○
	60X/ NA=0.75, WD=3.18mm	○
	80X/ NA=0.8, WD=1.25mm	○
	100X/ NA=0.85, WD=0.4mm	○
Infinite LWD Plan Apochromatic Objectives (LWD M APO200A)	2X/ NA=0.055, WD=34.6mm	○
	3.5X/ NA=0.1, WD=40.93mm	○
	5X/ NA=0.13, WD=44.5mm	○
	10X/ NA=0.28, WD=34mm	○
	20X/ NA=0.29, WD=31mm	○

	50X/ NA=0.42, WD=20.1mm	○
Infinite LWD Plan Apochromatic Objectives (LWD M APO200B)	2X/ NA=0.075, WD=50mm	○
	4X/ NA=0.15, WD=36mm	○
	4.5X/ NA=0.18, WD=38mm	○
	20X/ NA=0.35, WD=29mm	○
Coaxial light Device	Coaxial device, does not include light source	○
	Polarized coaxial device, does not include light source	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	●
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	●
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○
	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○
	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○

	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
	BFA-1 coarse focus arm. Stroke: 50mm.	○
	BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
	BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
	BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
	BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Model	BS-1080FCM	
Lens	Optical Magnification	0.6-5.0X
	Zoom method	Auto zoom
	FOV	12x6.75-1.44x0.81mm
	Total Magnification	28-240X(based on 15.6 inch monitor)
	Working Distance	86mm
Camera	Resolution	1920*1080
	Frame	60fps
	Sensor	1/2"
	Pixel Size	3.75x3.75μm
	Output	High resolution HDMI output
	Measuring function	Support measuring of point, line, parallel lines, circle, arc, angle, rectangle, polygon etc.

	Save function	Take photo and video to U disk
Stand	Base size	330*300mm
	Height of post	318mm
	Focus	Coarse focus
Light	Ring light	12V 13W all in one LED ring light with 4 zones control 228PCS LED quantity
	Transmitted light	12V 5W transmitted light

Magnification	Working distance	FOV	Depth of Field	NA	Resolution	Magnification	Working distance	FOV
0.6X	85.6mm	12x6.75mm	3.12mm	0.021mm	0.016mm	0.6X	85.6mm	12x6.75mm
0.8X	85.6mm	9x5.06mm	2.04mm	0.025mm	0.014mm	0.8X	85.6mm	9x5.06mm
1.0X	85.6mm	7.2x4.05mm	1.21mm	0.033mm	0.010mm	1.0X	85.6mm	7.2x4.05mm
2.0X	85.6mm	3.6x2.03mm	0.38mm	0.053mm	0.006mm	2.0X	85.6mm	3.6x2.03mm
3.0X	85.6mm	2.4x1.35mm	0.20mm	0.067mm	0.005mm	3.0X	85.6mm	2.4x1.35mm
4.0X	85.6mm	1.8x1.01mm	0.13mm	0.079mm	0.004mm	4.0X	85.6mm	1.8x1.01mm
5.0X	85.6mm	1.5x0.81mm	0.09mm	0.090mm	0.004mm	5.0X	85.6mm	1.5x0.81mm

Accessories



C-mount adapter

C-mount adapter with iris



Auxiliary objectives



Coaxial device



Polarized coaxial device



3 holes nosepiece



4 holes nosepiece(20.3mm thread)



4 holes nosepiece(26mm thread)



Objective angle device 90°(inverted image)



Objective angle device 90°(erect image)



Monocular tube eyepiece



two output C-mount



BS-1080FCM



BS1080FCM with BA2 Stand



BS-1080FCM with BA3 Stand



BS1080FCM with BA4 Stand



BS-1080FCM with BA5 Stand



BS-1080FCM with BA6 Stand



BS-1080FCM with BA7 Stand



BS-1080FCM with BA8 Stand



BS-1080FCM with BA8 Stand and monitor

5. BS-1080AM Motor Zoom Monocular Microscope



BS-1080AM

Introduction

BS-1080AM Motor Zoom Monocular Microscope adopt high precision optical system and provide high resolution and sharp stereoscopic images. This series microscopes are designed for the applications in the fields of machine vision, industrial inspection and scientific research. Modularization product portfolio and excellent optical performance make them a better choice in these areas.

Features

1. High precision optical system

0.6-5.0X motor zoom magnification. High precision optical system design, repeated precision can reach 0.001 μ m.

2. Precise electronic feedback system

Precise electronic feedback system, set up intelligent and scan continuous.

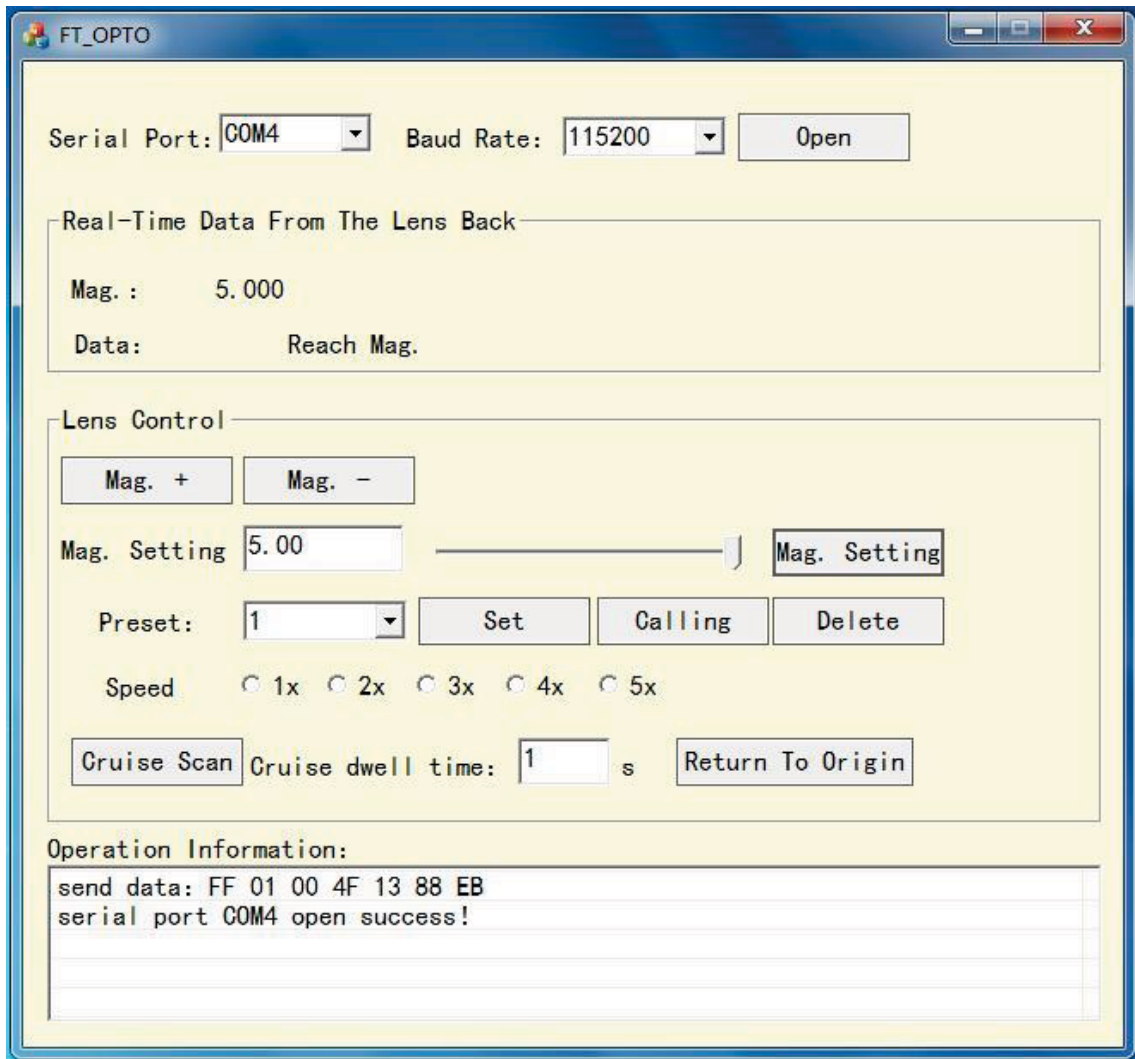
3. Modular design

Intelligent modular design, users can choose different magnification CTV mount and auxiliary objective to meet your needs. There are coaxial light sources, ring light sources and optical fiber for optional to test different samples.

4. Secondary development

Provide secondary development modules.

Software Window



Application

BS-1080AM Motor Zoom Monocular Microscope are widely used in educational demonstration, agriculture research, industrial material, semi-conductor, integrated circuit board inspection area and so on. Widely used in electric equipment, semi-conductor, LCD and LED, for digital image observation, inspection and measurement.

Specification

Item	Specification	BS-1080AM
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6X-5.0X	●
Zoom method	Auto zoom	●
Zoom ratio	1:8.3	●
Viewing head	Monocular tube with 10X/18mm eyepiece	○
Objective Angle Device	Objective angle device 90°, inverted image	○

	Objective angle device 90°, erect image	○
LCD Digital Camera	BLC-480A LCD digital camera with HDMI2.0, USB3.0 and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-480B LCD digital camera with HDMI2.0, USB2.0 and WIFI multi output, 30fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580A LCD digital camera with HDMI2.0, USB, LAN and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580AF LCD digital camera with HDMI2.0, USB and WIFI multi output, with built-in Auto Focus system, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
C-mount Adapter	0.3X C-mount adapter	○
	0.45X C-mount adapter	○
	0.5X C-mount adapter	○
	0.67X C-mount adapter	○
	0.75X C-mount adapter	○
	1.0X C-mount adapter	●
	1.5X C-mount adapter	○
	2X C-mount adapter	○
	3X C-mount adapter	○
	0.5X C-mount adapter with iris	○
1.0X C-mount adapter with iris	○	
Auxiliary Lens	1.0X Auxiliary Objective	●
	0.3X Auxiliary Objective	○
	0.4X Auxiliary Objective	○
	0.5X Auxiliary Objective	○
	0.6X Auxiliary Objective	○
	0.75X Auxiliary Objective	○
	1.5X Auxiliary Objective	○
	2.0X Auxiliary Objective	○
Infinite LWD Plan Achromatic Metallurgical Objective (MA200A)	5X/ NA=0.12, WD=26.1mm	○
	10X/ NA=0.25, WD=20.2mm	○
	20X/ NA=0.4, WD=8.8mm	○
	40X/ NA=0.6, WD=3.98mm	○
	50X/ NA=0.7, WD=3.68mm	○
	60X/ NA=0.75, WD=1.22mm	○
	60X/ NA=0.75, WD=3.18mm	○
	80X/ NA=0.8, WD=1.25mm	○
100X/ NA=0.85, WD=0.4mm	○	
Infinite LWD Plan	2X/ NA=0.055, WD=34.6mm	○

Apochromatic Objectives (LWD M APO200A)	3.5X/ NA=0.1, WD=40.93mm	○
	5X/ NA=0.13, WD=44.5mm	○
	10X/ NA=0.28, WD=34mm	○
	20X/ NA=0.29, WD=31mm	○
	50X/ NA=0.42, WD=20.1mm	○
Infinite LWD Plan Apochromatic Objectives (LWD M APO200B)	2X/ NA=0.075, WD=50mm	○
	4X/ NA=0.15, WD=36mm	○
	4.5X/ NA=0.18, WD=38mm	○
	20X/ NA=0.35, WD=29mm	○
Coaxial light Device	Coaxial device, does not include light source	○
	Polarized coaxial device, does not include light source	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Connecting Ring	Mounting Adapter (39.6 to 45mm), used to connect the BS-1080 to 45mm focus arm	○
	Mounting Adapter (39.6 to 50mm), used to connect the BS-1080 to 50mm focus arm	○
	Metallurgical objective adapter (used to connect metallurgical objectives onto the zoom body)	○
Nosepiece	3 holes nosepiece, 20.3mm thread	○
	4 holes nosepiece, 20.3mm thread	○
	4 holes nosepiece, 26mm thread	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○

BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○
BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○
BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○
BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ 32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ 32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ 25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
BFA-1 coarse focus arm. Stroke: 50mm.	○
BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Model	BS-1080AM				
Zoom body	0.6-5.0X				
Lens mount	Standard C mount				
Working distance	86mm				
Zoom method	Motor zoom				
Connect port	RS232 and USB				
Power	DC12V 2A				
Magnification	WD	Depth of view	NA	Resolution	CCD
0.6X	86mm	3.12mm	0.021mm	0.016mm	2/3"
0.8X	86mm	2.04mm	0.025mm	0.014mm	2/3"
1.0X	86mm	1.21mm	0.033mm	0.010mm	2/3"
2.0X	86mm	0.38mm	0.053mm	0.006mm	2/3"
3.0X	86mm	0.20mm	0.067mm	0.005mm	2/3"
4.0X	86mm	0.13mm	0.079mm	0.004mm	2/3"
5.0X	86mm	0.09mm	0.090mm	0.004mm	2/3"

Accessories



C-mount adapter



C-mount adapter with iris



Auxiliary objectives



Coaxial device



Polarized coaxial device



3 holes nosepiece



4 holes nosepiece(20.3mm thread)



4 holes nosepiece(26mm thread)



Objective angle device 90°(inverted image)



Objective angle device 90°(erect image)



Monocular tube eyepiece



two output C-mount



BS-1080AM with coaxial light

6. BS-10803D 2D/3D Monocular Video Microscope



BS-10803D with BA1 stand

Introduction

BS-10803D 2D/3D Monocular Video Microscope supports two observation method: 2D or 3D side view 360° rotation observation.

BS-10803D is widely used in circuit board, microelectronics, precision electronics, precision hardware, deep hole wall, life science, animal and plant morphology.

Features

1. 2D/3D observation

Infinity optical system. 0.6-5.0X optical zoom body. Support two observation method: 2D or 3D side view 360° rotation observation.

2. 45° objective viewing angle

Working distance and center position always maintain same when you switch 2D to 3D observation, no need to adjust the focus again. Adjust to any magnification and get a best image without adjustable.

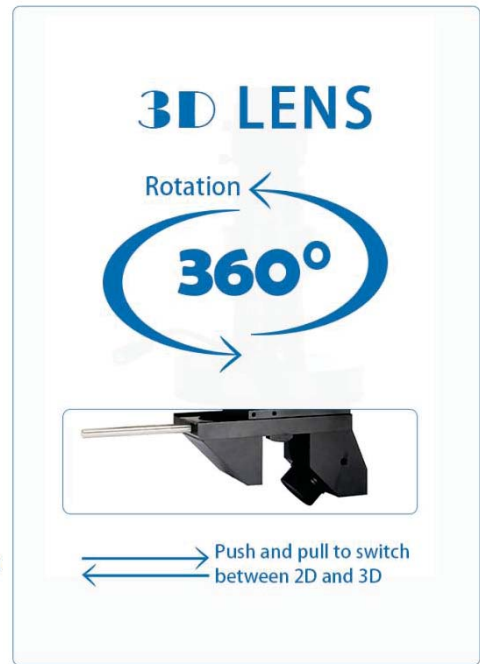
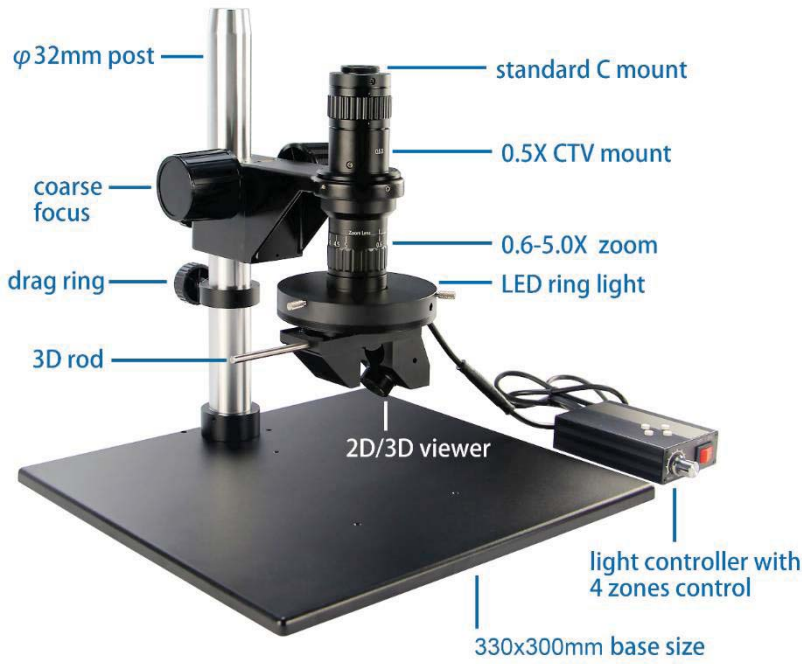
3. Standard C mount

0.5X standard CTV mount, 0.3X, 0.75X, 1X, 1.5X CTV mount for optional.

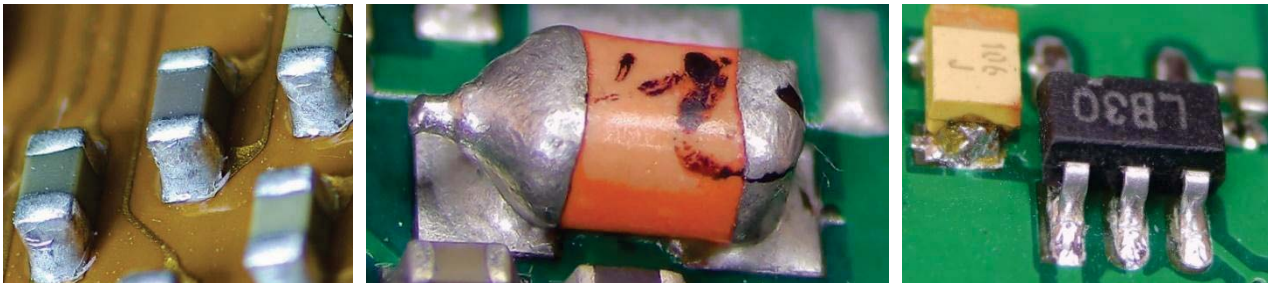
4. Large FOV

Large depth of view. Equipped with 1/2" sensor camera, the field of view is full image without dark edge image at minimum magnification.

Product Details



Application



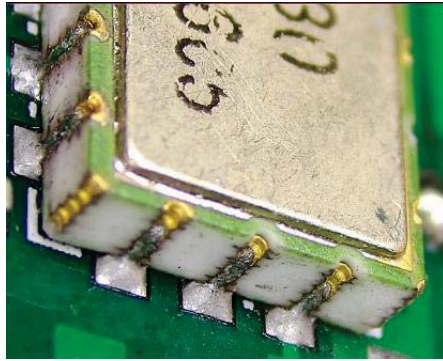
PCB inspection



Hardware



Deep hole



Precision electronics



Morphology

Specification

Item	Specification	BS-10803D
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6X-5.0X	●
Zoom ratio	1:8.3	●
Mounting Size	Φ50mm	●
Optical Magnification	0.3X-2.5X (with 0.5X C-mount adapter)	●
LCD Digital Camera	BLC-480A LCD digital camera with HDMI2.0, USB3.0 and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-480B LCD digital camera with HDMI2.0, USB2.0 and WIFI multi output, 30fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580A LCD digital camera with HDMI2.0, USB, LAN and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580AF LCD digital camera with HDMI2.0, USB and WIFI multi output, with built-in Auto Focus system, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
C-mount Adapter	0.3X C-mount adapter	○
	0.5X C-mount adapter	●
	0.75X C-mount adapter	○
	1.0X C-mount adapter	○
	1.5X C-mount adapter	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	●
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○

	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○
	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○
	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○
	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
BFA-1 coarse focus arm. Stroke: 50mm.	○	
BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○	

	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
	BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
	BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
	BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Model	BS-10803D	
Optical Parameter	0.3-2.5X (0.6-5.0X zoom body with 0.5X C mount)	
Working distance	2D: 86mm	3D: 50mm
FOV	24*13.5-2.88*1.62mm (base on 1/2" 7.2*4.05mm camera)	
Mount	Standard C mount	
Observation mode	2D observation 360° rotation 3D side view observation	
3D viewer angle	45°	

Accessories



BS-10803D with BA1 stand



BS-10803D with BA13 stand

7. BS-10803DL 2D/3D Monocular Video Microscope with Side Light



BS-10803DL with BA1 stand

Introduction

BS-10803DL 2D/3D Monocular Video Microscope with Side Light supports two observation method: 2D or 3D side view 360° rotation observation. Paired with the LED ring light with four-zone control, adding an integrated LED side light, following the 360° rotation of the 3D observation head, perfectly solving the problem of light source dark angle.

BS-10803DL is widely used in circuit board, microelectronics, precision electronics, precision hardware, deep hole wall, life science, animal and plant morphology.

Features

1. 2D/3D observation

Infinity optical system. 0.6-5.0X optical zoom body. Support two observation method: 2D or 3D side view 360° rotation observation.

2. 45° objective viewing angle

Working distance and center position always maintain same when you switch 2D to 3D observation, no need to adjust the focus again. Adjust to any magnification and get a best image without adjustable.

3. Standard C mount

0.5X standard CTV mount, 0.3X, 0.75X, 1X, 1.5X CTV mount for optional.

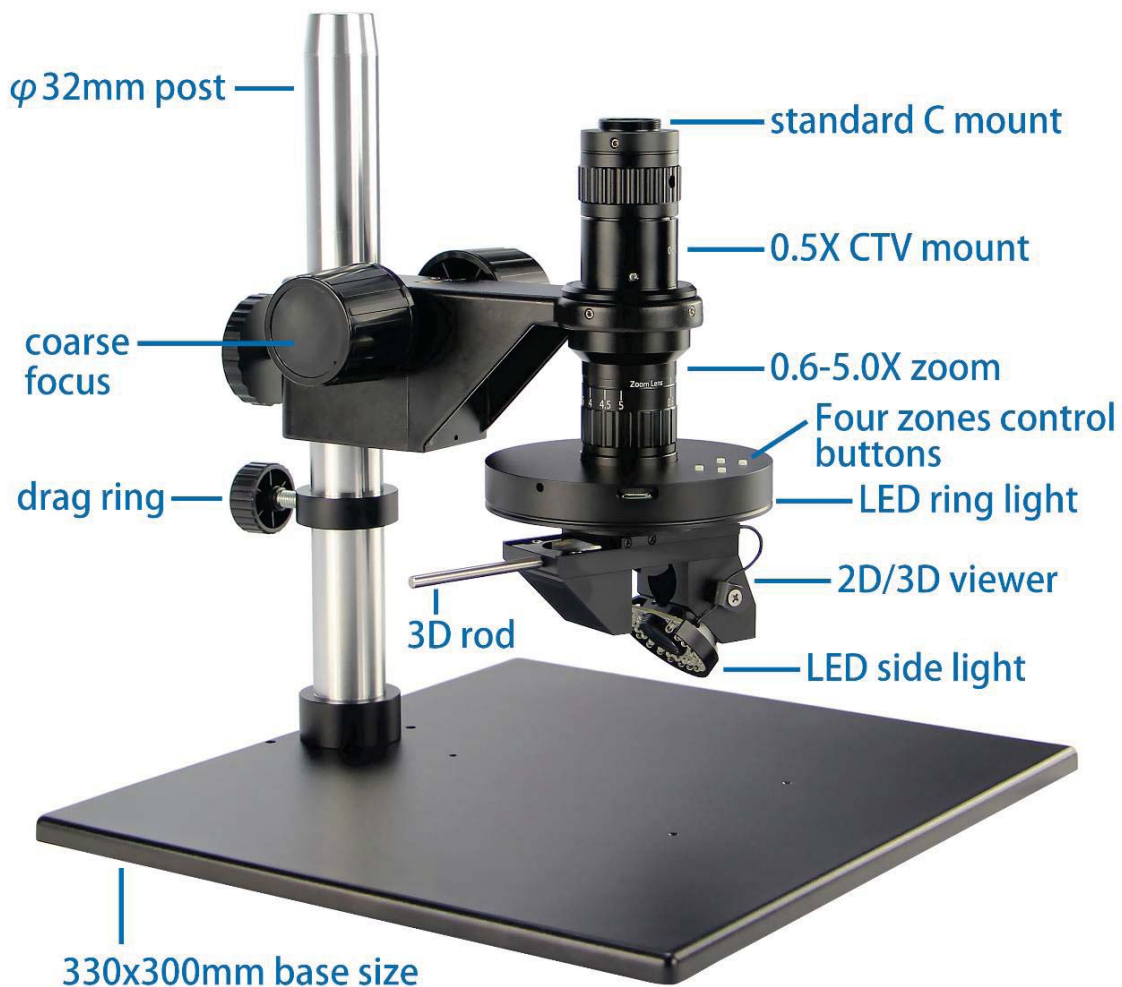
4. Large FOV

Large depth of view. Equipped with 1/2" sensor camera, the field of view is full image without dark edge image at minimum magnification.

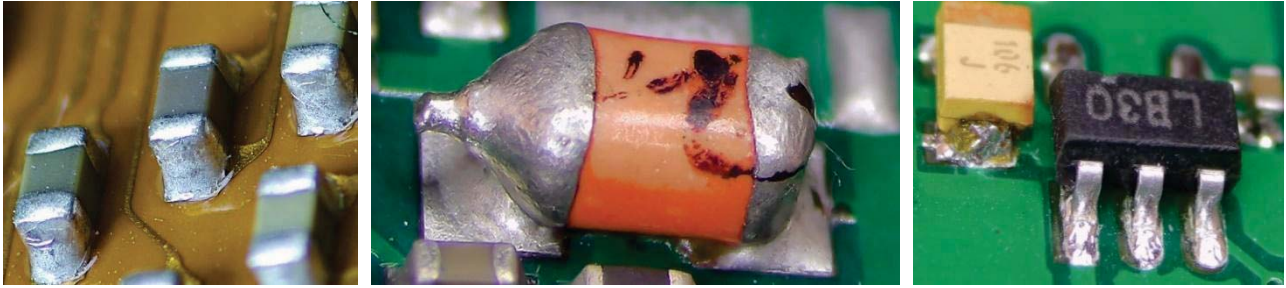
5. Illumination

LED ring light with four-zone control and an integrated side light. The side light follows 360° rotation of the 3D viewer, perfectly solving the problem of light dark angle.

Product Details



Application



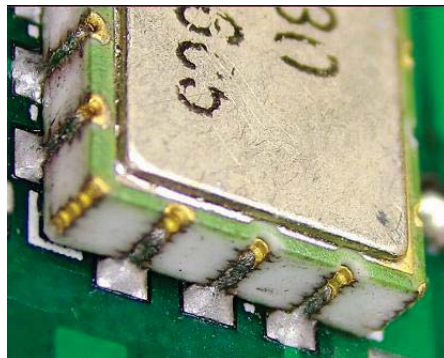
PCB inspection



Hardware



Deep hole



Precision electronics



Morphology

Specification

Item	Specification	BS-10803DL
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6X-5.0X	●
Zoom ratio	1:8.3	●
Mounting Size	Φ50mm	●
Illumination	Ring light: 267 PCS LED, color temperature 6000K, brightness 0-100% adjustable	●
	Side light: 31 PCS LED, color temperature 6000K, brightness 0-100% adjustable	●
LCD Digital Camera	BLC-480A LCD digital camera with HDMI2.0, USB3.0 and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-480B LCD digital camera with HDMI2.0, USB3.0 and WIFI multi output, 30fps@4K or	○

	60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	
	BLC-580A LCD digital camera with HDMI2.0, USB, LAN and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580AF LCD digital camera with HDMI2.0, USB and WIFI multi output, with built-in Auto Focus system, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
C-mount Adapter	0.3X C-mount adapter	○
	0.5X C-mount adapter	●
	0.75X C-mount adapter	○
	1.0X C-mount adapter	○
	1.5X C-mount adapter	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BLS2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○

BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○
BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○
BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
BFA-1 coarse focus arm. Stroke: 50mm.	○
BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Model	BS-10803DL	
Zoom body	0.6-5.0X	
C mount	0.5X	
Working distance	2D:86mm	3D:50mm
Field of view	24mm*13.5mm-2.88mm*1.62mm (base on 1/2" sensor camera)	
Lens mount	Standard C-mount	
Observe mode	2D observation 360° rotation 3D side view observation	
Front light	267 PCS LED, color temperature 6000K, brightness 0-100% adjustable	
Side light	31 PCS LED, color temperature 6000K, brightness 0-100% adjustable	

Accessories



BS-10803DL with BA1 stand



BS-10803DL with BA13 stand

8. BS-10803DWF 2D/3D Monocular Video Microscope with Large FOV



BS-10803DWF with BA1 stand

Introduction

BS-10803DWF 2D/3D Monocular Video Microscope with Large FOV supports two observation method: 2D or 3D side view 360° rotation observation. The FOV of 3D observation can reach 70mm.

BS-10803DWF is widely used in circuit board, microelectronics, precision electronics, precision hardware, deep hole wall, life science, animal and plant morphology.

Features

1. 2D/3D observation

Infinity optical system. 0.6-5.0X optical zoom body. Support two observation method: 2D or 3D side view 360° rotation observation.

2. 45° objective viewing angle

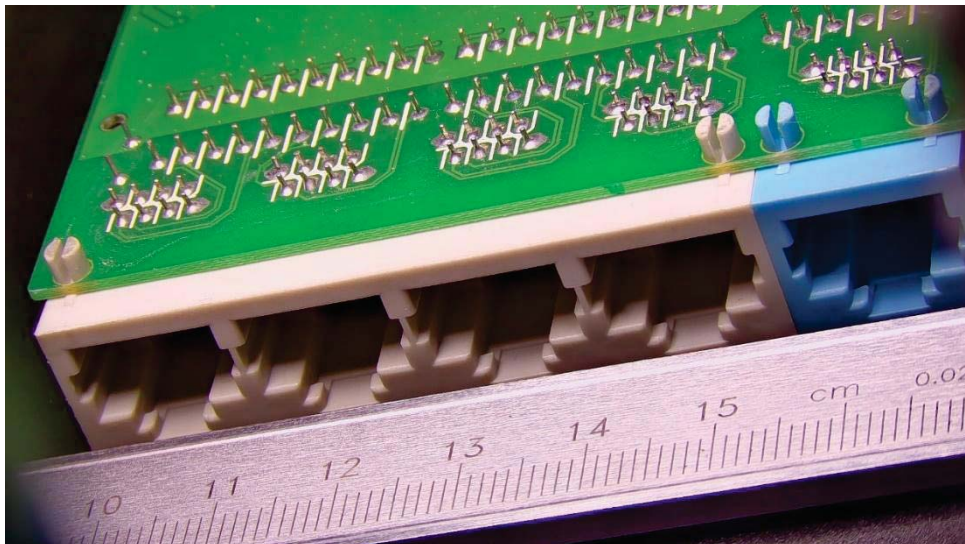
Working distance and center position always maintain same when you switch 2D to 3D observation, no need to adjust the focus again. Adjust to any magnification and get a best image without adjustable.

3. Standard C mount

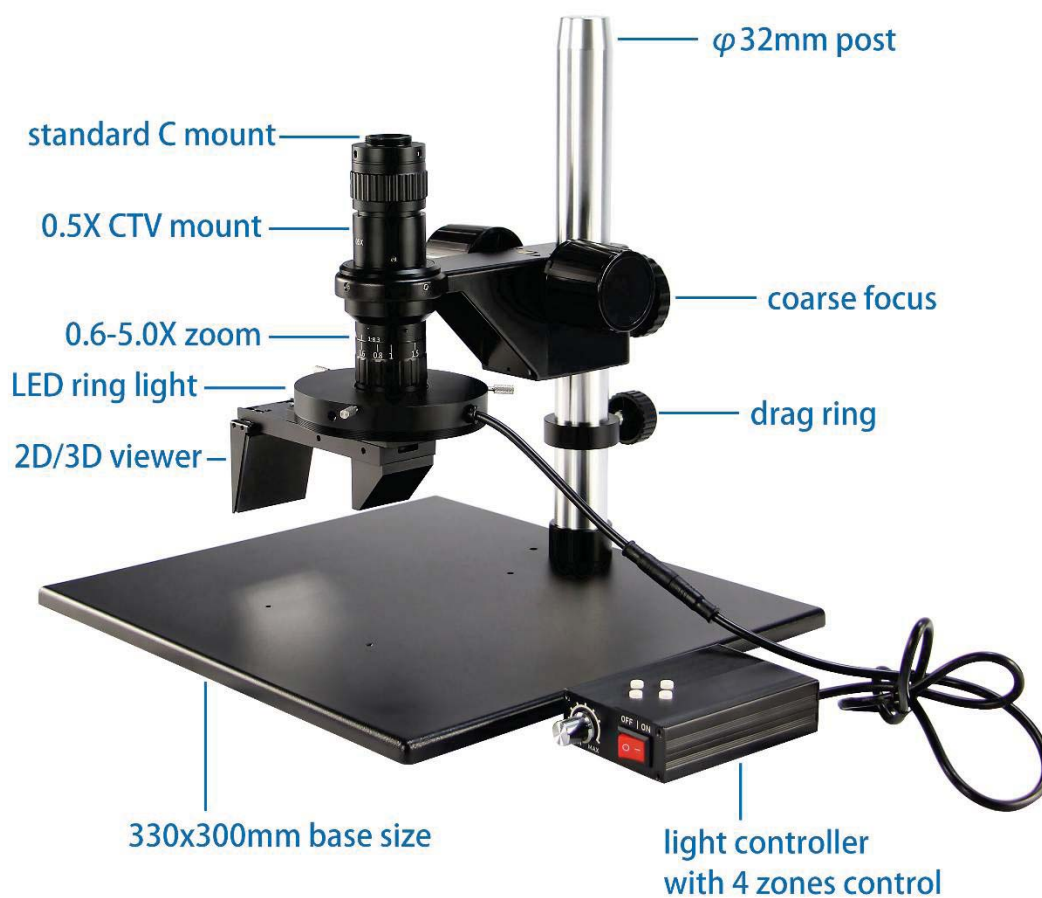
0.5X standard CTV mount, 0.3X, 0.75X, 1X, 1.5X CTV mount for optional.

4. Large FOV

The FOV of 3D observation can reach 70mm. Equipped with 1/2" sensor camera, the field of view is full image without dark edge image at minimum magnification.



Product Details



Specification

Item	Specification	BS-10803DWF
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6X-5.0X	●
Zoom ratio	1:8.3	●
Mounting Size	Φ50mm	●
LCD Digital Camera	BLC-480A LCD digital camera with HDMI2.0, USB3.0 and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-480B LCD digital camera with HDMI2.0, USB2.0 and WIFI multi output, 30fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580A LCD digital camera with HDMI2.0, USB, LAN and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580AF LCD digital camera with HDMI2.0, USB and WIFI multi output, with built-in Auto Focus system, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
C-mount Adapter	0.3X C-mount adapter	○
	0.5X C-mount adapter	●
	0.75X C-mount adapter	○
	1.0X C-mount adapter	○
	1.5X C-mount adapter	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	●
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○

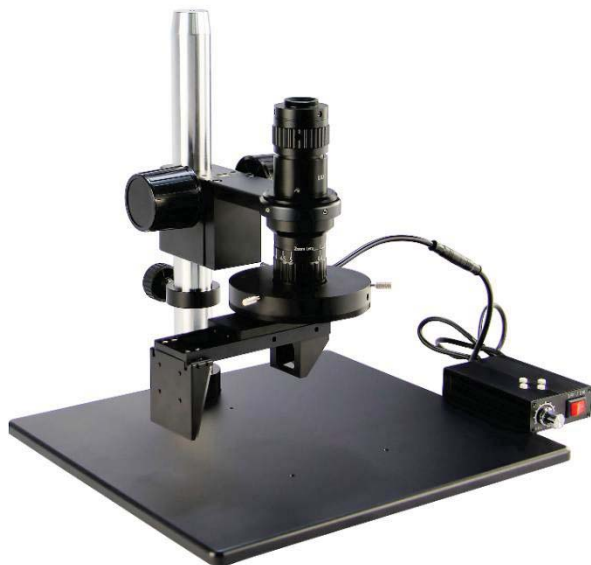
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○
	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○
	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○
	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ 32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ 32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ 25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
	BFA-1 coarse focus arm. Stroke: 50mm.	○
	BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○	
BFA-6 N interface coarse focus arm. Stroke: 50mm.	○	
BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○	

Note: ●Standard Outfit, ○Optional

Optical Parameter

Model	BS-10803DWF	
Optical magnification	2D: 0.23X-1.88X	3D: 0.09X-0.75X
Zoom body	0.6-5.0X	
C mount	0.5X	
Objective	2D: 0.75X	3D: 0.3X
Working distance	2D: 105mm	3D: 50mm
FOV	2D: 30*17mm-3.7*2mm	3D: 70*45mm-9*5mm
Lens mount	Standard C mount	
Observation mode	2D or 3D observation	
3D viewer angle	45°	

Accessories

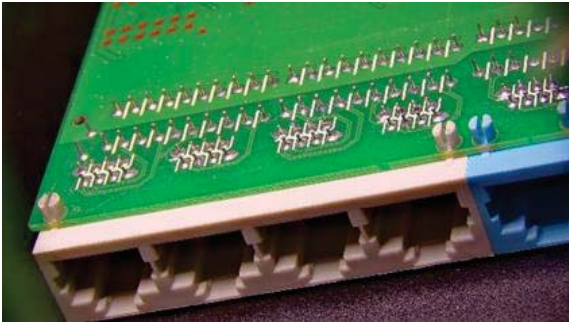
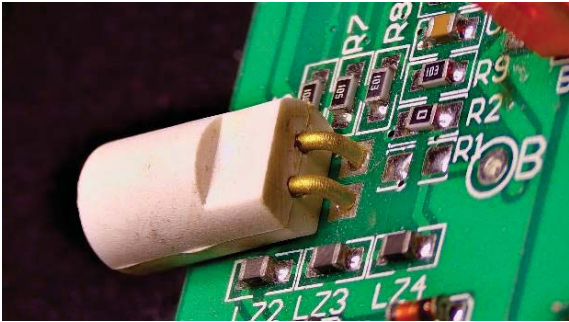
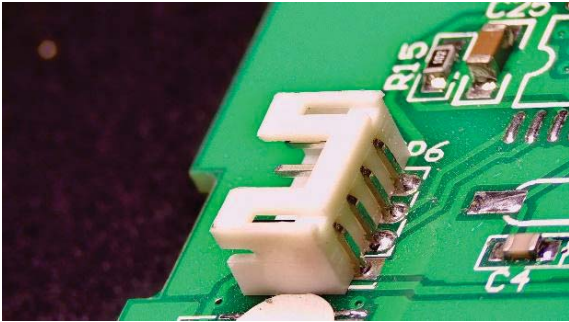


BS-10803DWF with BA1 stand



BS-10803DWF with BA13 stand

Sample Image



9. BS-10803DAM 2D/Motor 3D Monocular Video Microscope



BS-10803DAM with BA1 stand

Introduction

BS-10803DAM 2D/Motor 3D Monocular Video Microscope supports two observation method: 2D or motor 3D side view 360° rotation observation. Multi-functional integrated controller with digital LCD screen, easy to operate.

BS-10803DAM is widely used in circuit board, microelectronics, precision electronics, precision hardware, deep hole wall, life science, animal and plant morphology.

Features

1. 2D/Motor 3D observation

Infinity optical system. 0.6-5.0X optical zoom body. Support two observation method: 2D or motor 3D side view 360° rotation observation. Multi-functional integrated controller with digital LCD screen, easy to operate.

2. 45° objective viewing angle

Working distance and center position always maintain same when you switch 2D to 3D observation, no need to adjust the focus again.

3. Standard C mount

0.5X standard CTV mount, 0.3X, 0.75X, 1X, 1.5X CTV mount for optional.

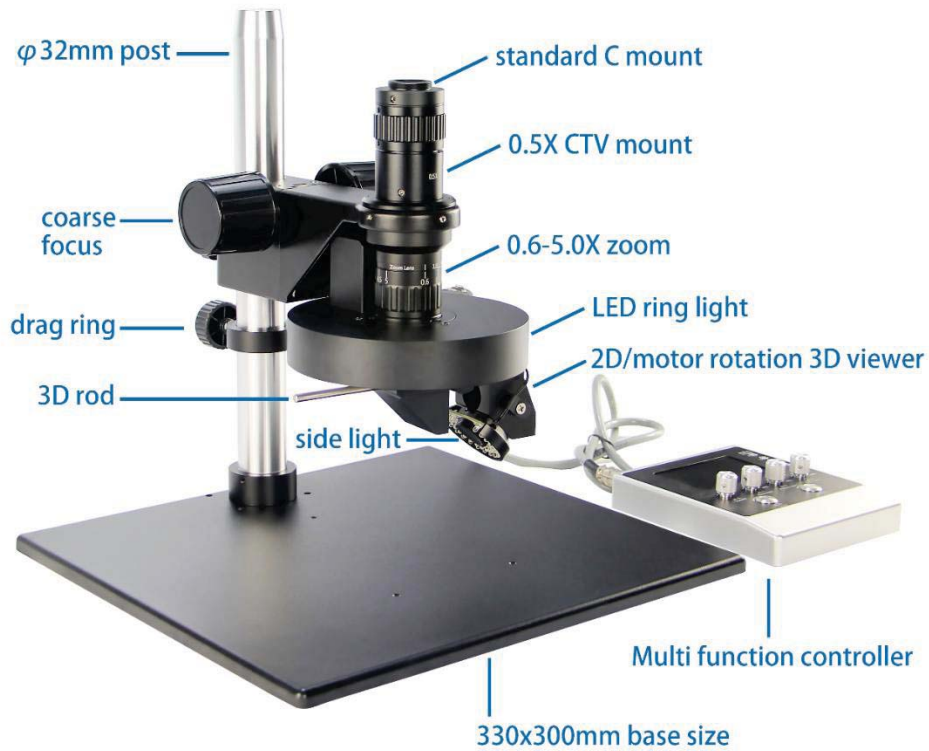
4. Large FOV

Large depth of view. Equipped with 1/2" sensor camera, the field of view is full image without dark edge image at minimum magnification.

5. Illumination

LED ring light with four-zone control and an integrated side light. The side light follows 360° rotation of the 3D viewer, perfectly solving the problem of light dark angle.

Product Details



Specification

Item	Specification	BS-10803DAM
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6X-5.0X	●
Zoom ratio	1:8.3	●
Mounting Size	Φ50mm	●
Illumination	Ring light: 267 PCS LED, color temperature 6000K, brightness 0-100% adjustable	●
	Side light: 31 PCS LED, color temperature 6000K, brightness 0-100% adjustable	●
LCD Digital Camera	BLC-480A LCD digital camera with HDMI2.0, USB3.0 and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-480B LCD digital camera with HDMI2.0, USB2.0 and WIFI multi output, 30fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580A LCD digital camera with HDMI2.0, USB, LAN and WIFI multi output, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
	BLC-580AF LCD digital camera with HDMI2.0, USB and WIFI multi output, with built-in Auto Focus system, 60fps@4K or 60fps@1080P, can capture 8M (3840*2160) pictures, 4K videos and do measurement, control with mouse. With 13.3 inch LCD screen, resolution 1920*1080.	○
C-mount Adapter	0.3X C-mount adapter	○
	0.5X C-mount adapter	●
	0.75X C-mount adapter	○
	1.0X C-mount adapter	○
	1.5X C-mount adapter	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○

	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○
	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○
	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○
	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ 32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ 32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ 25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
	BFA-1 coarse focus arm. Stroke: 50mm.	○
	BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
	BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
	BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○	

Note: ●Standard Outfit, ○Optional

Optical Parameter

Model	BS-10803DAM	
Zoom body	0.6-5.0X	
C mount	0.5X	
Working distance	2D: 86mm	3D: 50mm
FOV	24mm*13.5mm-2.88mm*1.62mm (base on 1/2" 7.2*4.05mm camera)	
Mount	Standard C mount	
Observation mode	2D observation Motor 360° rotation 3D side view observation	
Front light	267 PCS LED, color temperature 6000K, brightness 0-100% adjustable	
Side light	31 PCS LED, color temperature 6000K, brightness 0-100% adjustable	

Accessories

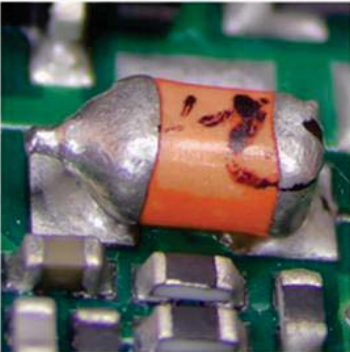
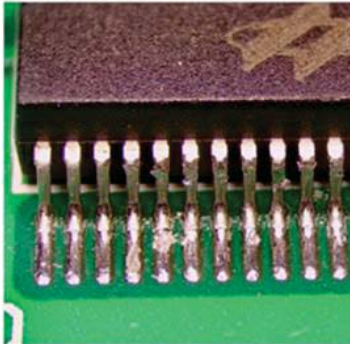
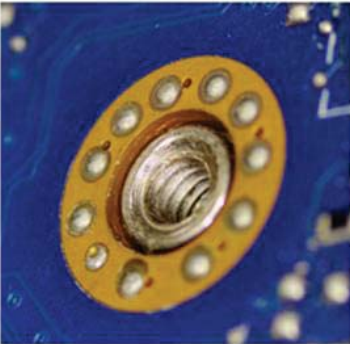
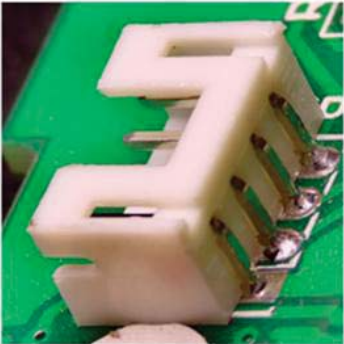


BS-10803DAM with BA1 stand



BS-10803DAM with BA13 stand

Sample Images



10. BS-10803DAML Motor Zoom 2D/Motor 3D Monocular Video

Microscope



BS-10803DAML with monitor

Introduction

BS-10803DAML Motor Zoom 2D/Motor 3D Monocular Video Microscope supports two observation method: 2D or motor 3D side view 360° rotation observation. 0.6X-5X motor stepless zoom, with smart cruise setting. The optical magnification and image magnification are displayed in real time. The users don't need to calibrate again, measuring directly.

BS-10803DAML is widely used in industrial inspection, auto system, electronic communication, semiconductor, biomedical and scientific research, etc.

Features

1. 2D/Motor 3D observation

0.6X-5X motor stepless zoom, with smart cruise setting. High precision optical system design, continuous cruise keeps the center same. Repeated precision can reach 0.001 μ m. Support two observation method: 2D or motor 3D side view 360° rotation observation.

2. No need for PC and software

High precision electronic feedback system, no need for PC. Connect HDMI monitor directly, no need to install software. There is built-in smart measuring software, one key to save high-definition images and measurement data. Operate directly with a mouse, easy and convenient.

3. Calibration free

The optical magnification and image magnification are displayed in real time. The users don't need to calibrate again, measuring directly.

4. Durable and sturdy

High hardness aluminum alloy material, anodic oxidation treatment, more durable in use.

Software Window

Real time display optical magnification and imaging magnification

Basic function: Take photo, take video, AWB, AE, Freeze, camera setting

Measuring function: support point, line distance, parallel lines, circle, arc, rectangle, polygon etc.

Crosshair scale

Built-in high precision electronic feedback system, Smart cruise scanning setting. No need to PC to control the motor lens

0.6-5.0X Electric stepless zoom you can adjust any magnification from 0.6-5.0X

0.6X-5.0X electric stepless zoom: You can adjust and magnification from 0.6X-5.0X.



Doubling Show

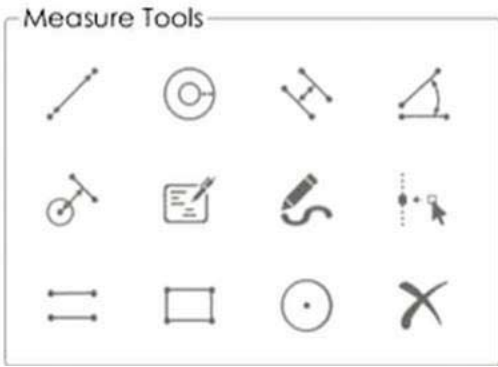
Optics: **0.60x**

Imaging: **43.24x**

Optical magnification and imaging magnification display in real time.

Auxiliary Tools

Auxiliary Tools
Automatic white balance, auto exposure, taking photo and video to USB disk, preview images online, camera setting, etc.



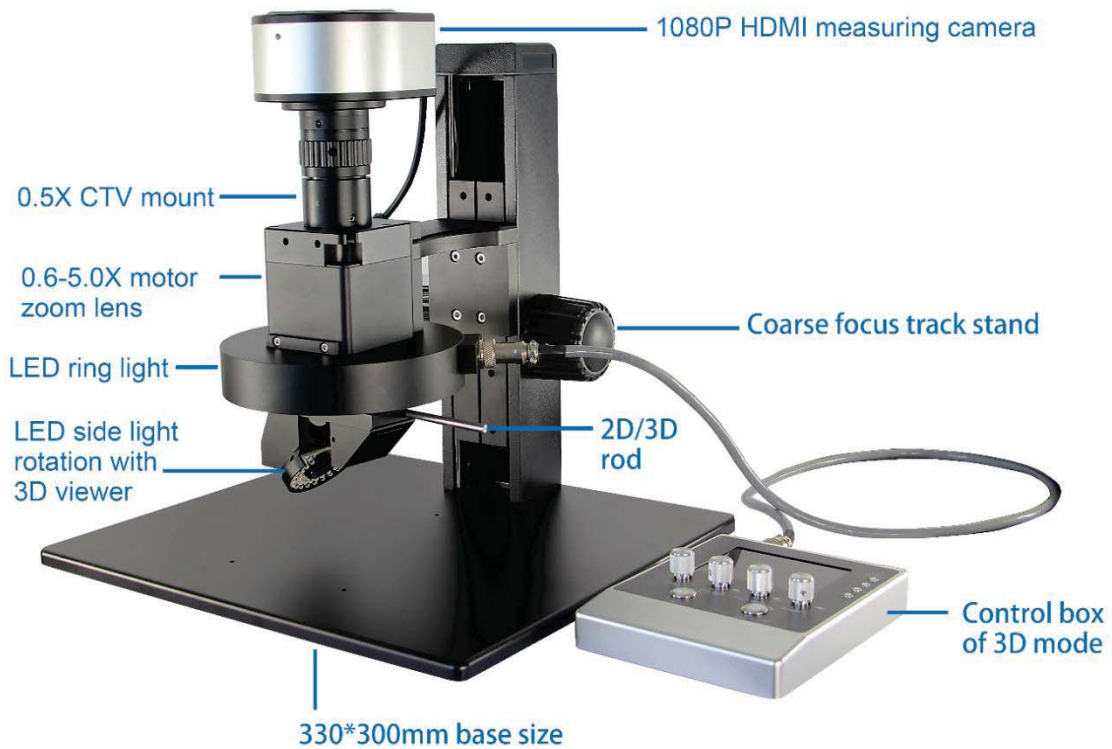
Measuring function

Support measurement of points, line distance, parallel lines, circle, arc, rectangle, polygon, etc.



Built-in high precision electronic feedback system, smart cruise scanning setting.

Product Details





Specification

Item	Specification	BS-10803DAML
Optical System	High precision optical system	•
Zoom Lens	Optical zoom magnification: 0.6X-5.0X	•
Zoom ratio	1:8.3	•
Illumination	Ring light: 267 PCS LED, color temperature 6000K, brightness 0-100% adjustable	•
	Side light: 31 PCS LED, color temperature 6000K, brightness 0-100% adjustable	•

Camera	Camera with HDMI output, 1/2" sensor, resolution: 1920*1080, pixel size: 3.75μm*3.75μm, 60fps. Support measuring of point, line, parallel lines, circle, arc, angle, rectangle, polygon etc. Take photo and video to U disk.	●
C-mount Adapter	0.3X C-mount adapter	○
	0.45X C-mount adapter	○
	0.5X C-mount adapter	●
	0.75X C-mount adapter	○
	1.0X C-mount adapter	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○
	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	●
	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○

	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
	BFA-1 coarse focus arm. Stroke: 50mm.	○
	BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
	BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
	BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
	BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○

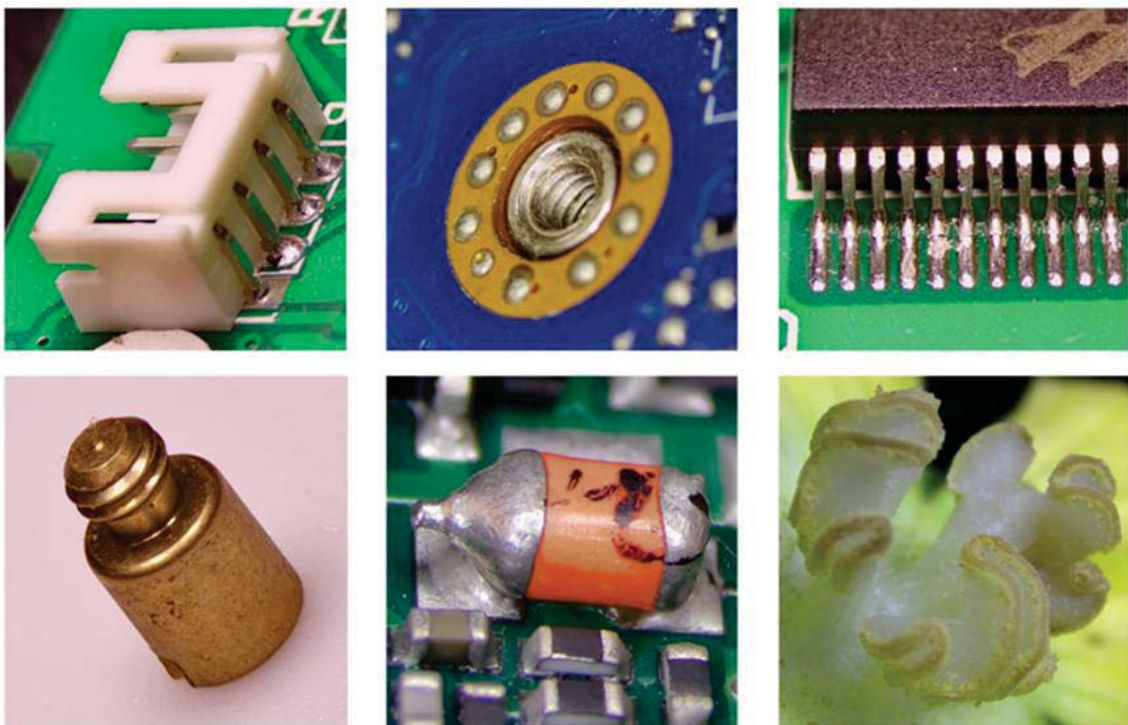
Note: ●Standard Outfit, ○Optional

Optical Parameter

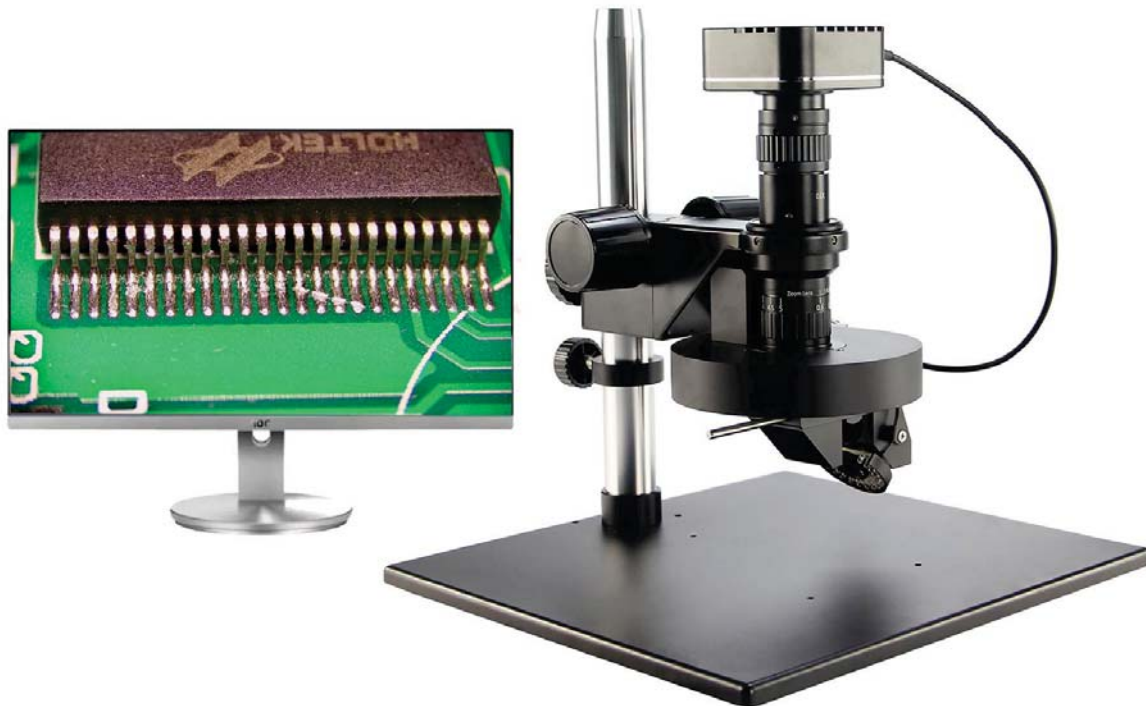
Model	BS-10803DAML	
Zoom body	0.6-5.0X	
C mount	0.5X	
Working distance	2D: 86mm	3D: 50mm
FOV	24mm*13.5mm-2.88mm*1.62mm	
Mount	Standard C mount	
Observation mode	2D observation Motor 360° rotation 3D side view observation	
Front light	267 PCS LED, color temperature 6000K, brightness 0-100% adjustable	
Side light	31 PCS LED, color temperature 6000K, brightness 0-100% adjustable	
Camera		

Resolution	1920*1080
Frame	60fps
Sensor	1/2"
Pixel Size	3.75μm *3.75μm
Output	High resolution HDMI output
Measuring function	Support measuring of point, line, parallel lines, circle, arc, angle, rectangle, polygon etc.
Save function	Take photo and video to U disk

Sample Images



11. BS-10803DAMR 2D/Motor 3D Monocular Video Microscope with Camera



BS-10803DAMR with BA1 stand and screen

Introduction

BS-10803DAMR 2D/Motor 3D Monocular Video Microscope supports two observation method: 2D or motor 3D side view 360° rotation observation. Equipped with 1/1.8" 1920*1080 HDMI camera, support take photo and video. The built-in software of the camera can control 3D rotation and lights, operated by mouse.

BS-10803DAMR is widely used in circuit board, microelectronics, precision electronics, precision hardware, deep hole wall, life science, animal and plant morphology.

Features

1. 2D/Motor 3D observation

Infinity optical system. 0.6-5.0X optical zoom body. Support two observation method: 2D or motor 3D side view 360° rotation observation.

2. 45° objective viewing angle

Working distance and center position always maintain same when you switch 2D to 3D observation, no need to adjust the focus again.

3. Standard C mount

0.5X standard CTV mount, 0.3X, 0.75X, 1X, 1.5X CTV mount for optional.

4. Large FOV

Large depth of view. Equipped with 1/1.8" sensor camera, the field of view is full image without dark edge image at minimum magnification.

5. Illumination

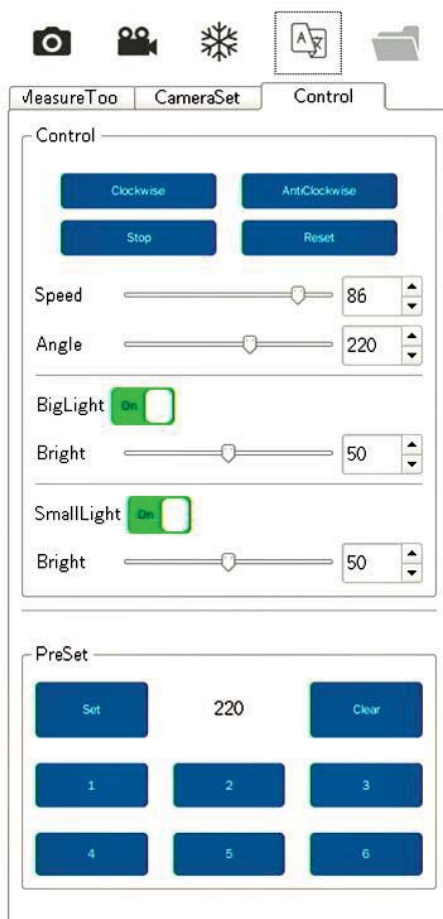
LED ring light with four-zone control and an integrated side light. The side light follows 360° rotation of the 3D viewer, perfectly solving the problem of light dark angle.

6. Camera

Equipped with 1/1.8" 1920*1080 HDMI camera, support take photo and video. The built-in software of the camera can control 3D rotation and lights, operated by mouse. It's easy and convenient.

Operation windows

Microscope with 1/1.8" 4K HDMI camera and built-in control program.



Automatic 3D rotation is driven by the camera. Operated by mouse, which is more convenient

Rotation direction:

Clockwise and anticlockwise

Stop: Stop rotation

Reset: Reset to original position

Speed: Adjust rotation speed

Angle: Set observation angle

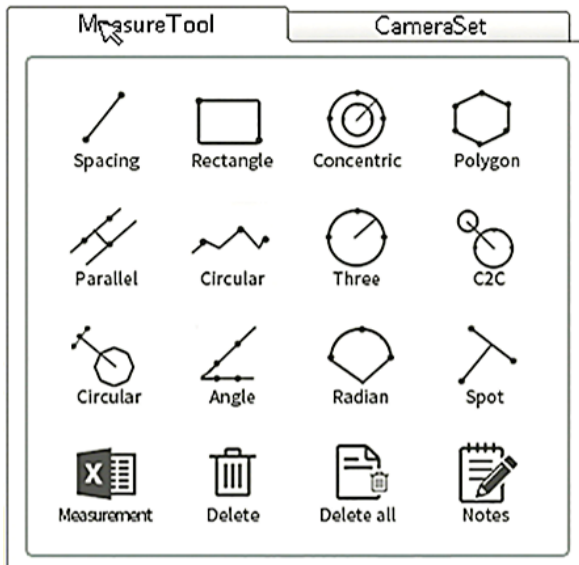
Big light: Adjust brightness, Turn on and off

Small light: Adjust brightness,

Turn on and off

PreSet: 6 preset positions of observation angle can be set as required

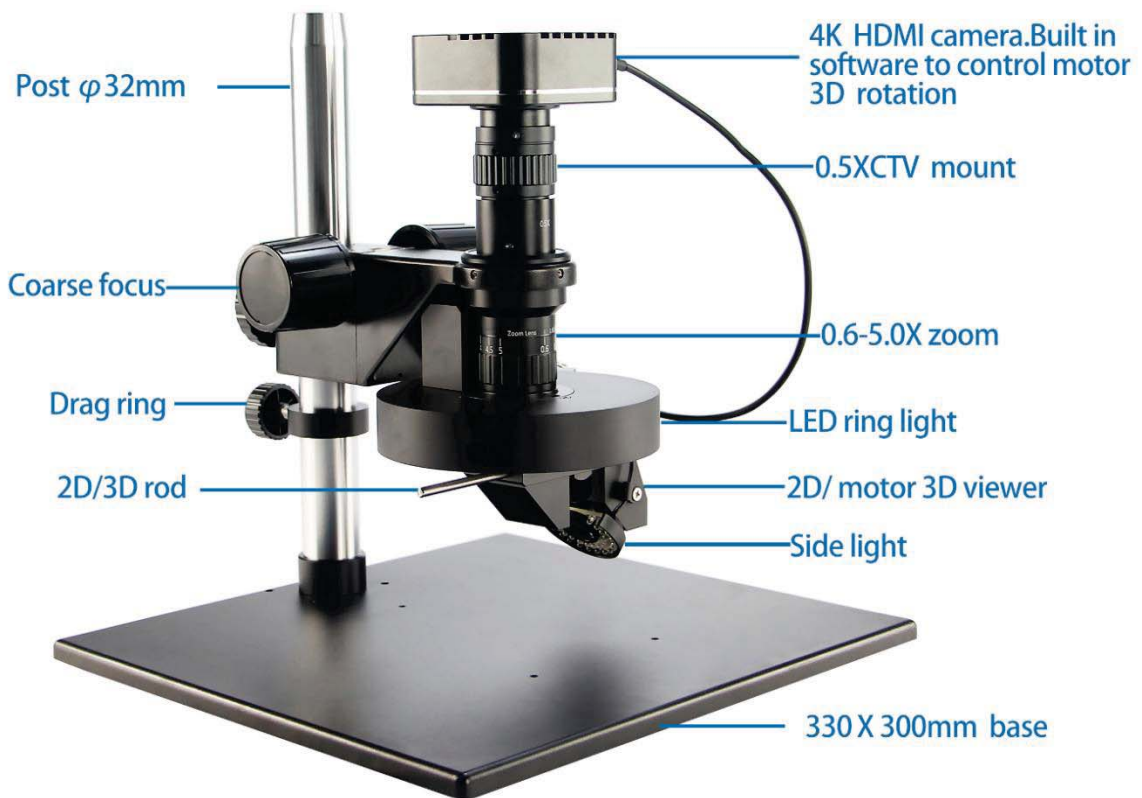
With built-in measurement software, we can measure dimensions under 2D observation.



Support line distance, circle, Angle, polygon etc. measurement

Measurement data can be saved with pictures

Product Details



Specification

Item	Specification	BS-10803DAMR
Optical System	Infinite apochromatic parallel optical system	•

Zoom Lens	Optical zoom magnification: 0.6X-5.0X	●
Zoom ratio	1:8.3	●
Mounting Size	Φ50mm	●
Illumination	Ring light: 267 PCS LED, color temperature 6000K, brightness 0-100% adjustable	●
	Side light: 31 PCS LED, color temperature 6000K, brightness 0-100% adjustable	●
Camera	Camera with HDMI output, 1/1.8" SONY CMOS, 8.3 mega-pixel, resolution: 3840*2160, frame: 60FPS, pixels size: 2.0μm*2.0μm. Built-in software controlling 3D rotation and light.	●
C-mount Adapter	0.3X C-mount adapter	○
	0.5X C-mount adapter	●
	0.75X C-mount adapter	○
	1.0X C-mount adapter	○
	1.5X C-mount adapter	○
Ring Light	BAL-80A LED Ring light, brightness adjustable	○
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○
	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○

	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine precision: 0.002mm.	○
	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
	BFA-1 coarse focus arm. Stroke: 50mm.	○
	BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
	BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
	BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
	BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○

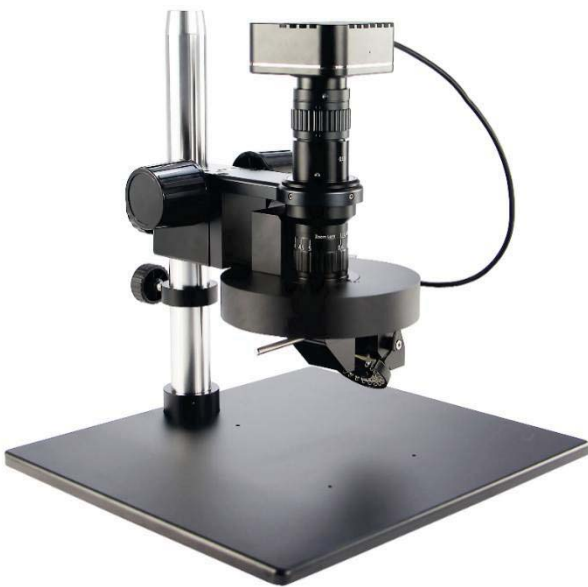
Note: ●Standard Outfit, ○Optional

Optical Parameter

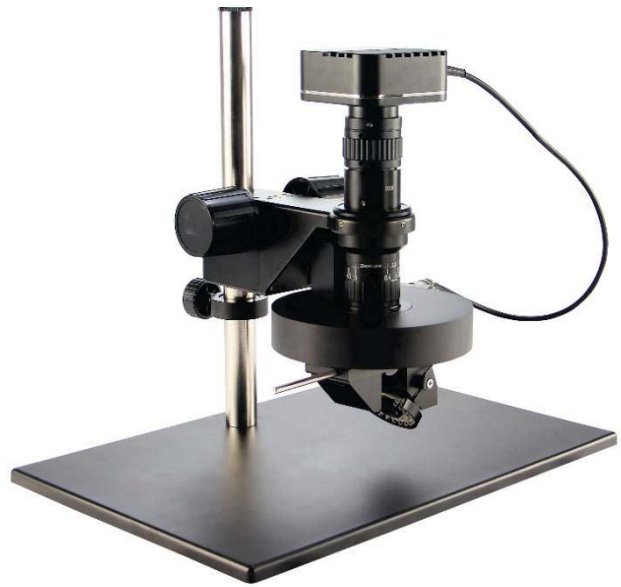
Model	BS-10803DAMR	
Zoom body	0.6-5.0X	
C mount	0.5X	
Working distance	2D: 86mm	3D: 50mm
FOV	25.6mm*14.4mm-3.0mm*1.7mm	
Mount	Standard C mount	
Observation mode	2D observation Motor 360° rotation 3D side view observation	
Front light	267 PCS LED, color temperature 6000K, brightness 0-100% adjustable	

Side light	31 PCS LED, color temperature 6000K, brightness 0-100% adjustable
Sensor	1/1.8" SONY CMOS
Resolution	3840x2160
Pixel	8.3MP
Frame	60 FPS
Pixel size	2.0μm*2.0μm
Output	HDMI output
Memory function	Take photo and video to U disk
Measuring function	Support measuring of line, angle, circle, radian, rectangle, polygon etc.

Accessories

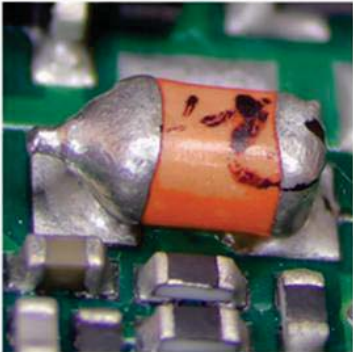
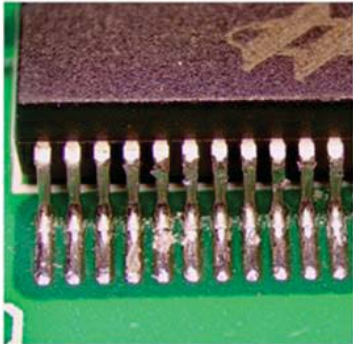
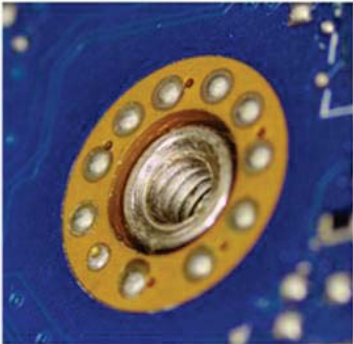
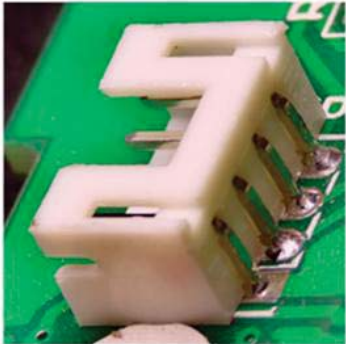


BS-10803DAMR with BA1 stand

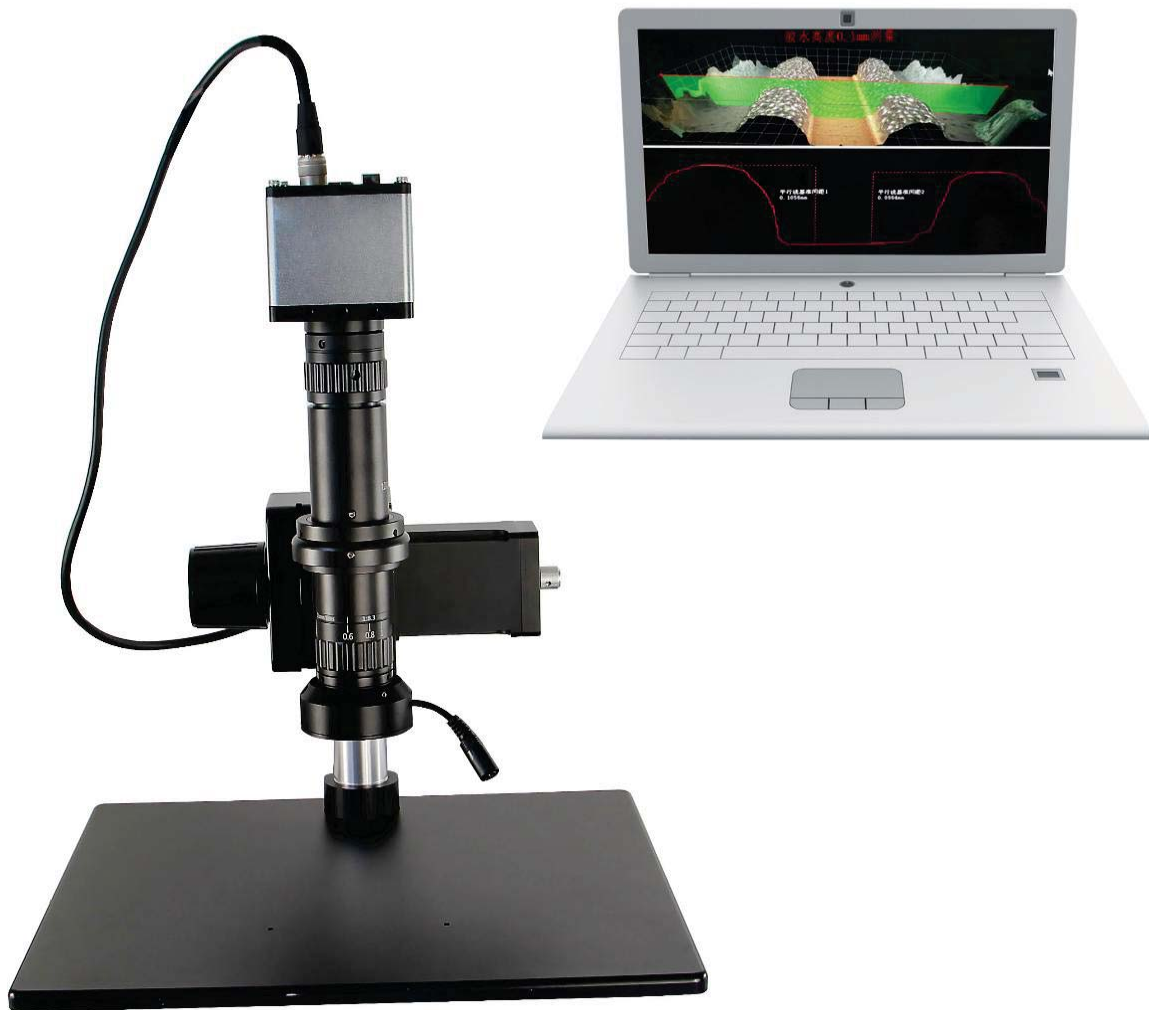


BS-10803DAMR with BA13 stand

Sample Images



12. BS-1080M3D 3D Ultra Depth of Field Microscope



BS-1080M3D with PC

Introduction

BS-1080M3D 3D Ultra Depth of Field Microscope can measure height by 3D modeling. Set the highest and lowest positions, and the software can automatically synthesize images of different height into a clear image, and automatically generate a 3D model. The height can be measured in 3D model, and plane size can be measured in synthesis image.

Features

1. 2D/3D observation

0.6-5.0X zoom body with automatic focusing, working distance is 86mm, with 1/1.2" large sensor camera. 1080P high resolution images. Infinity optical system. 0.6-5.0X optical zoom body. Support two observation method: 2D or 3D side view 360° rotation observation.

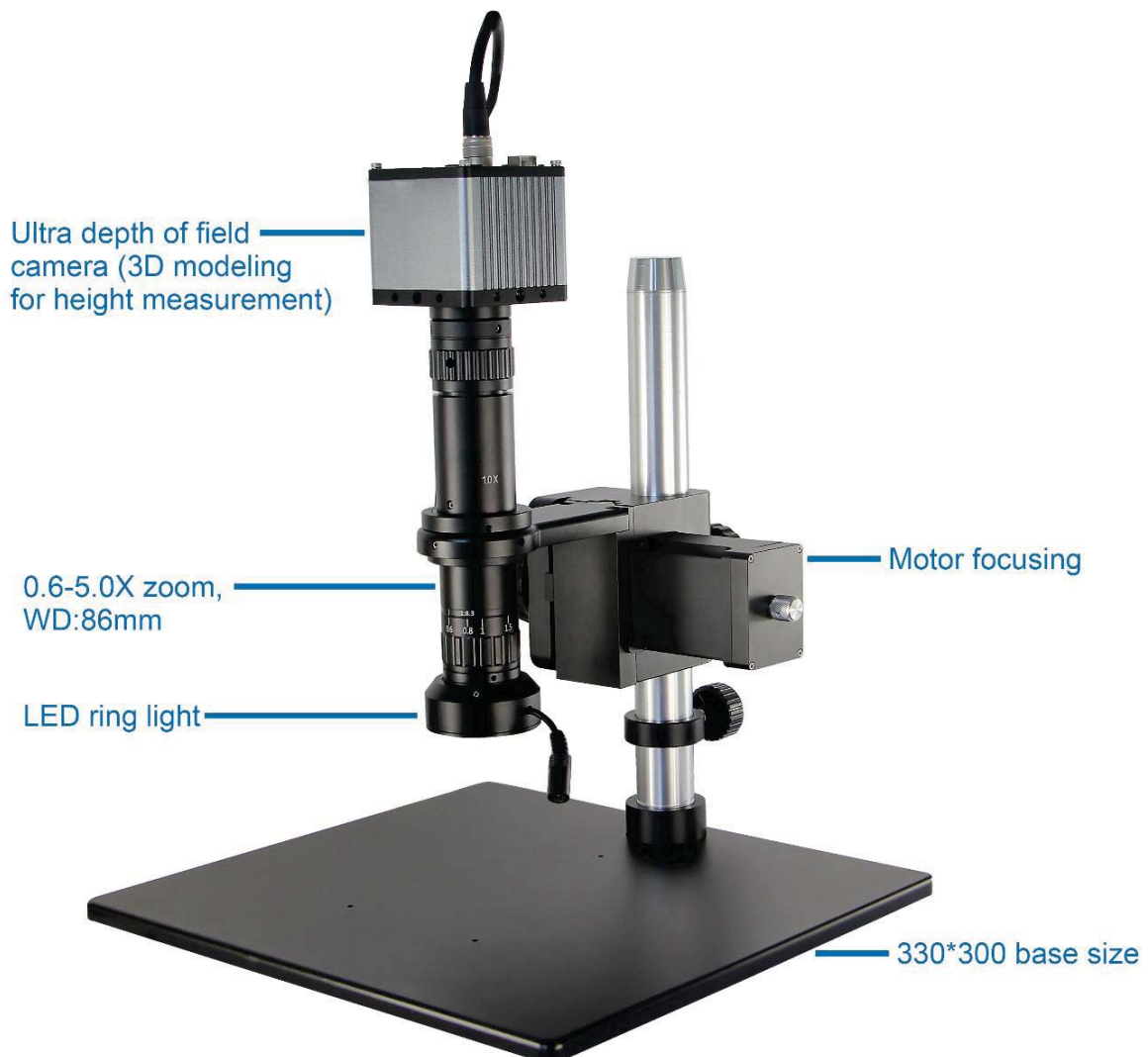
2. Easy and convenient

Gigabit network data transmission and PC software control operation. With 3D modeling and measurement function, report charts can be generated.

3. Diverse accessories

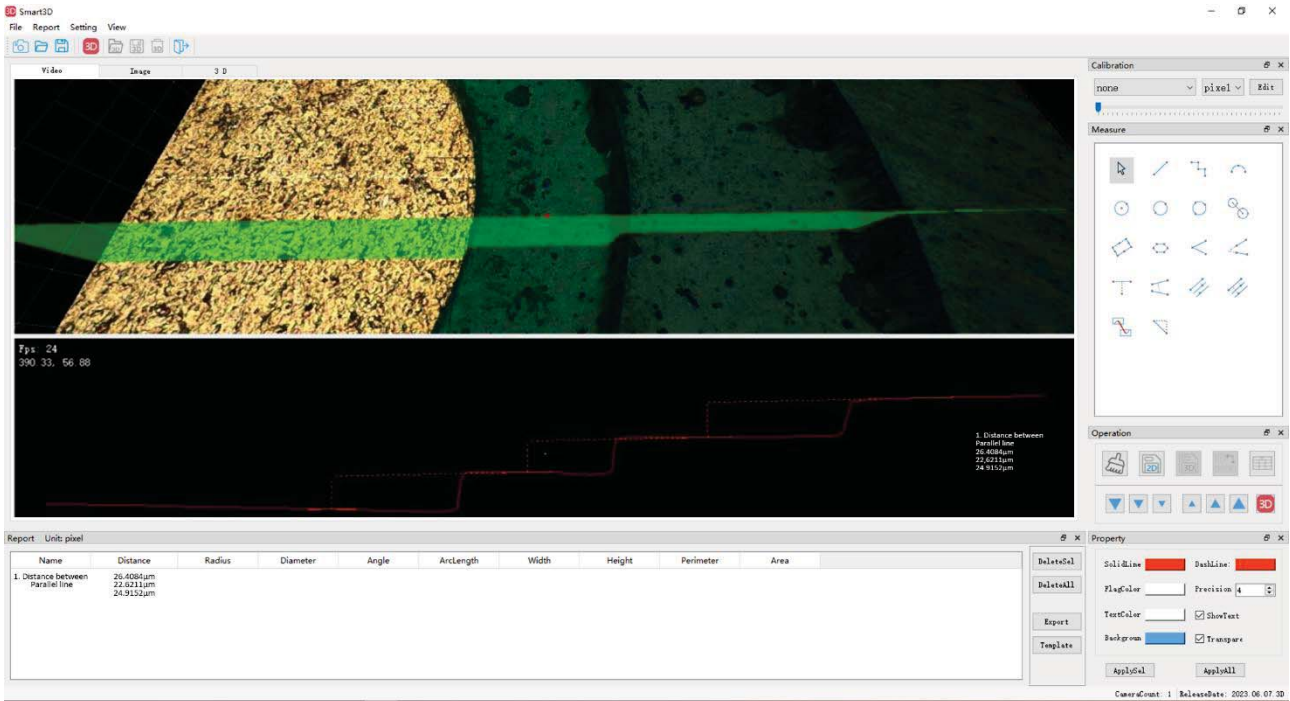
Various additional accessories are optional to meet different needs. There are a variety of auxiliary lens and C-mount adapter for option. There are also ring lights, coaxial lights and fiber light optional.

Product Details

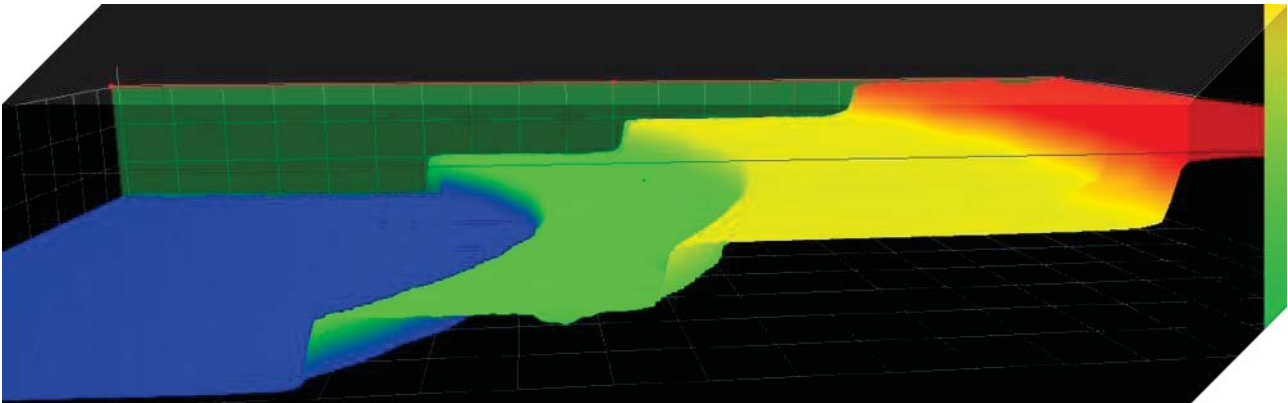


Main Function

3D models can be generated by depth of field synthesis technology. The model can be dragged and rotated at 720 degrees for viewing. The cutting line can be adjusted at any angle and position to generate a profile and measure the height.



The chromatogram height chart is easy for the users to see the 3D height difference clearly. The chromatogram height chart can also be dragged and viewed at 720 degrees.



3D Sample Parameters

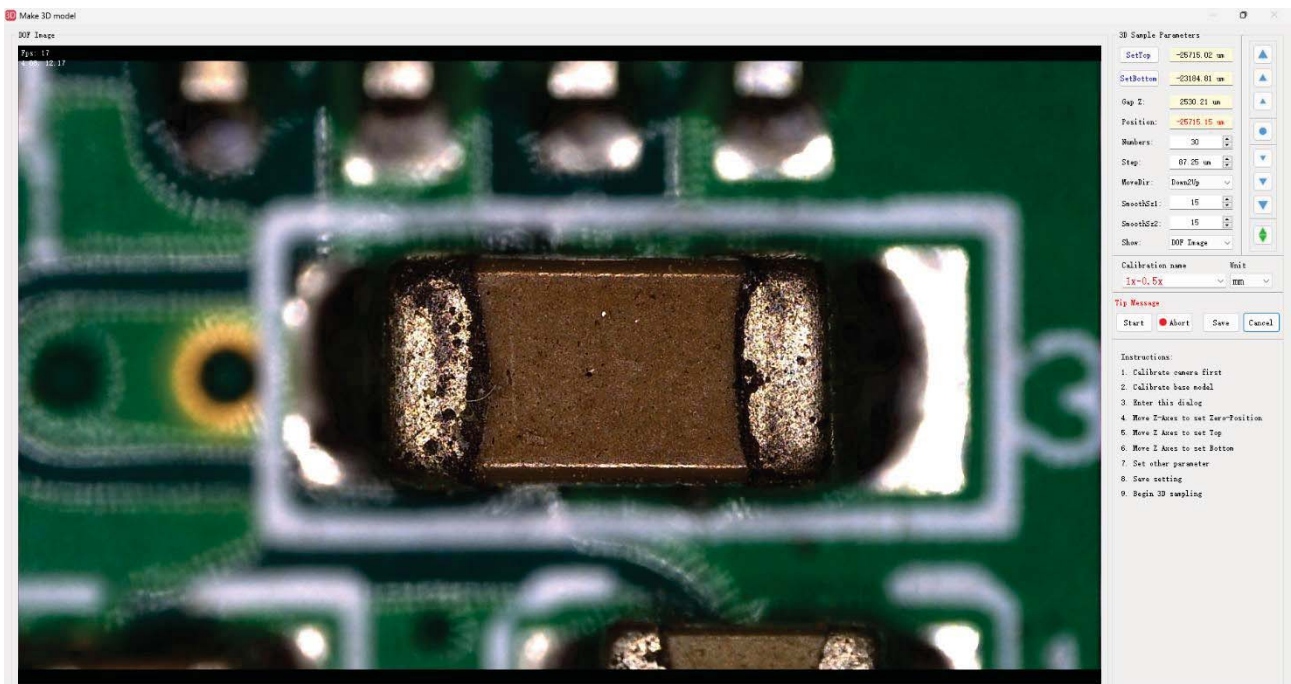
SetTop	-25715.02 μm	▲
SetBottom	-23184.81 μm	▲
Gap Z:	2530.21 μm	▲
Position:	-25715.15 μm	●
Numbers:	30	▼
Step:	87.25 μm	▼
MoveDir:	Down2Up	▼
SmoothSz1:	15	▼
SmoothSz2:	15	▼
Show:	DOF Image	◆

Calibration name Unit

1x-0.5x mm

Ultra-high precision image sampling settings

- Maximum sampling of 200 images.
- Minimum sampling interval 0.1 μm .
- Filtering of interference noise optional.
- Fast speed of sampling.
- Motor Z-axis provides six speeds of up and down.



The system exports measurement data, 3D graphics, and profile images into the same Excel file for easy observation, analysis, and comparison

Name	Distance	Radius	Diameter	Angle	Arclength	Width	Height	Perimeter	Area
1.Distance between Parallel line	26.4084μm 22.6211μm 24.9152μm								

Figure 1. Vertical View

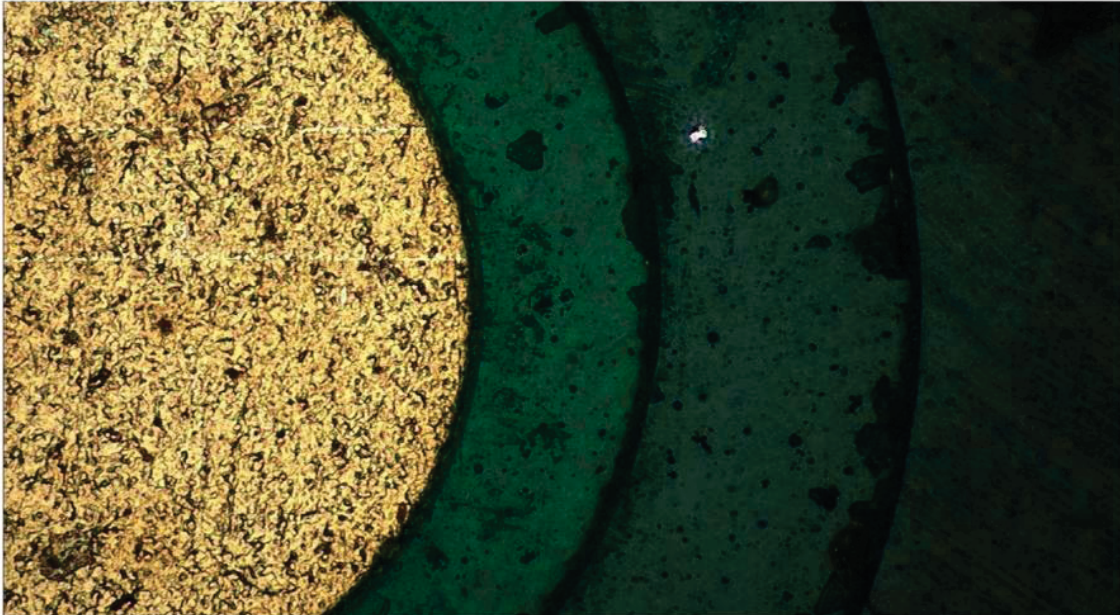


Figure 2. 3D diagram

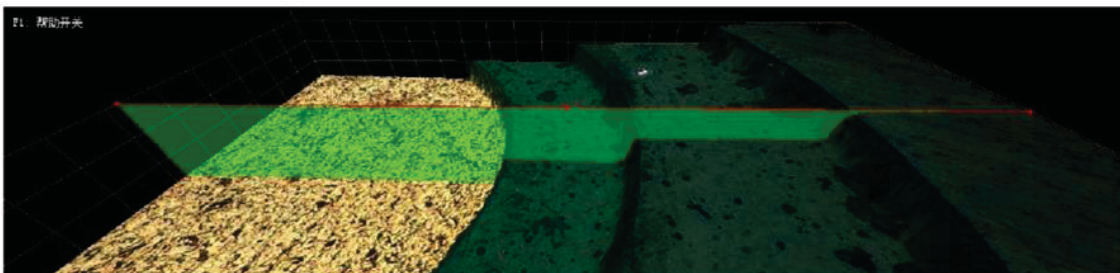
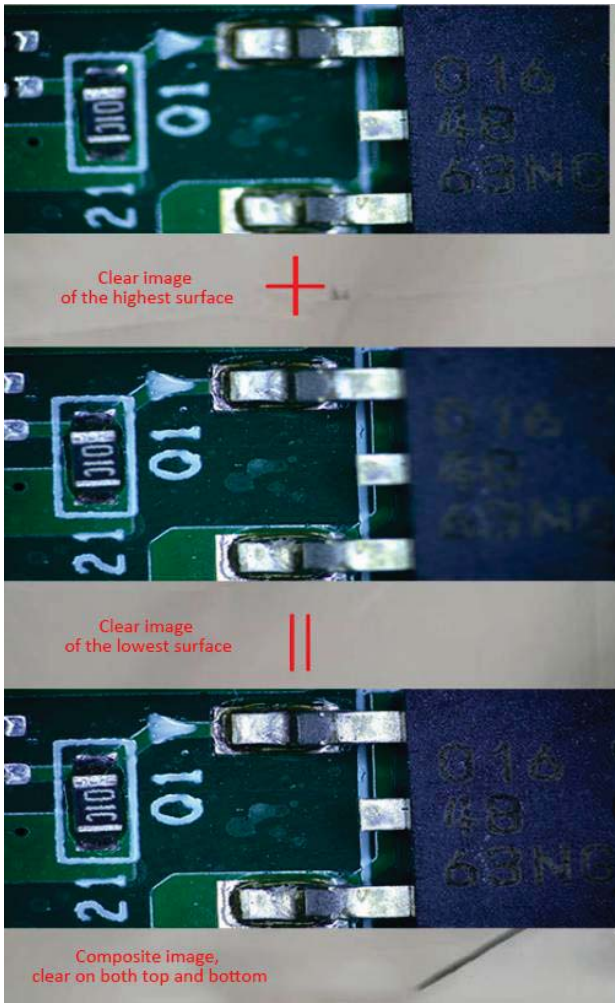


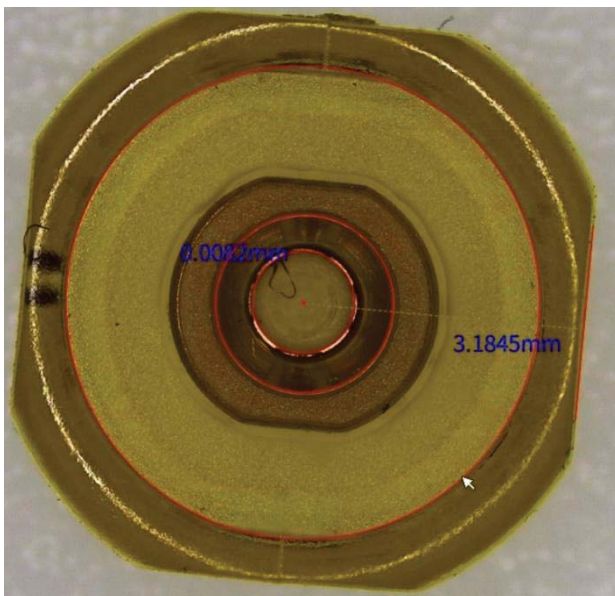
Figure 3. Profile





Depth of field fusion

Clear images from different heights in one image.

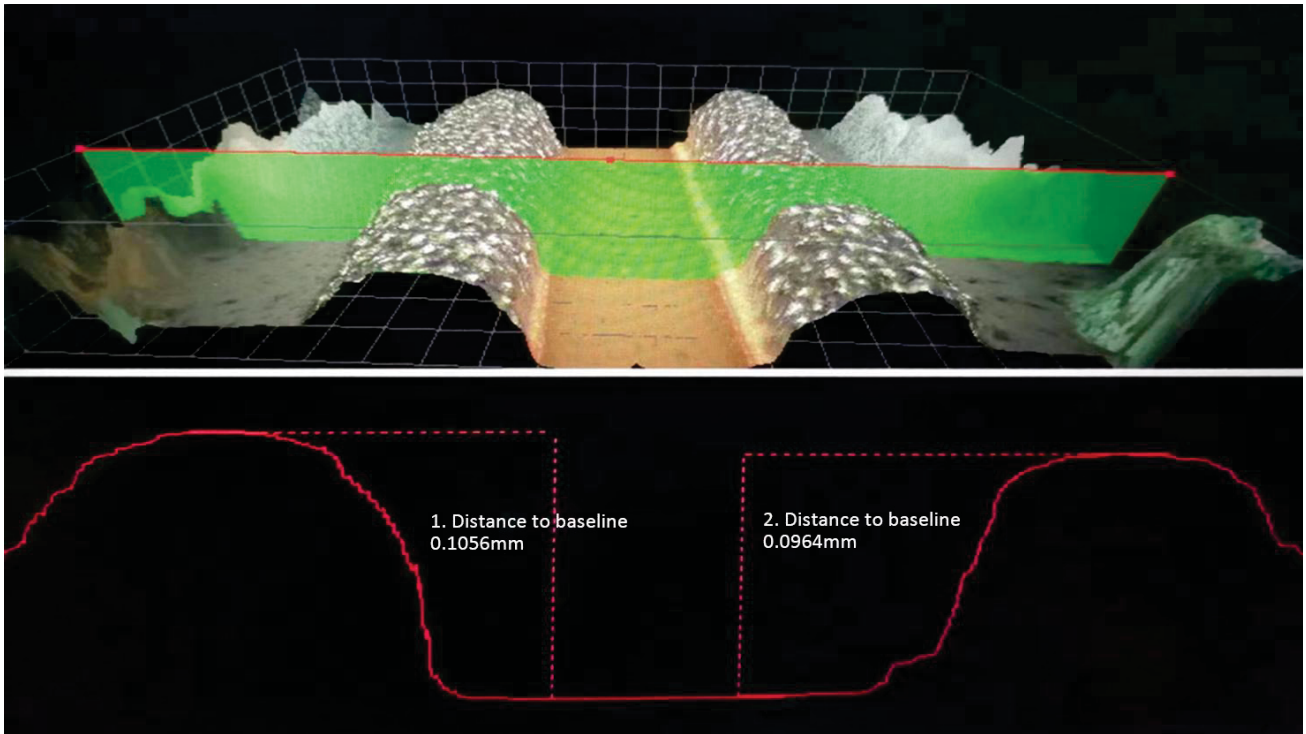


Measurement

The synthesized image can be used for feature correlation size measurement of different height planes.

Application

Height measurement of glue



Height measurement of emery grit

Smart3D

File Report Setting View

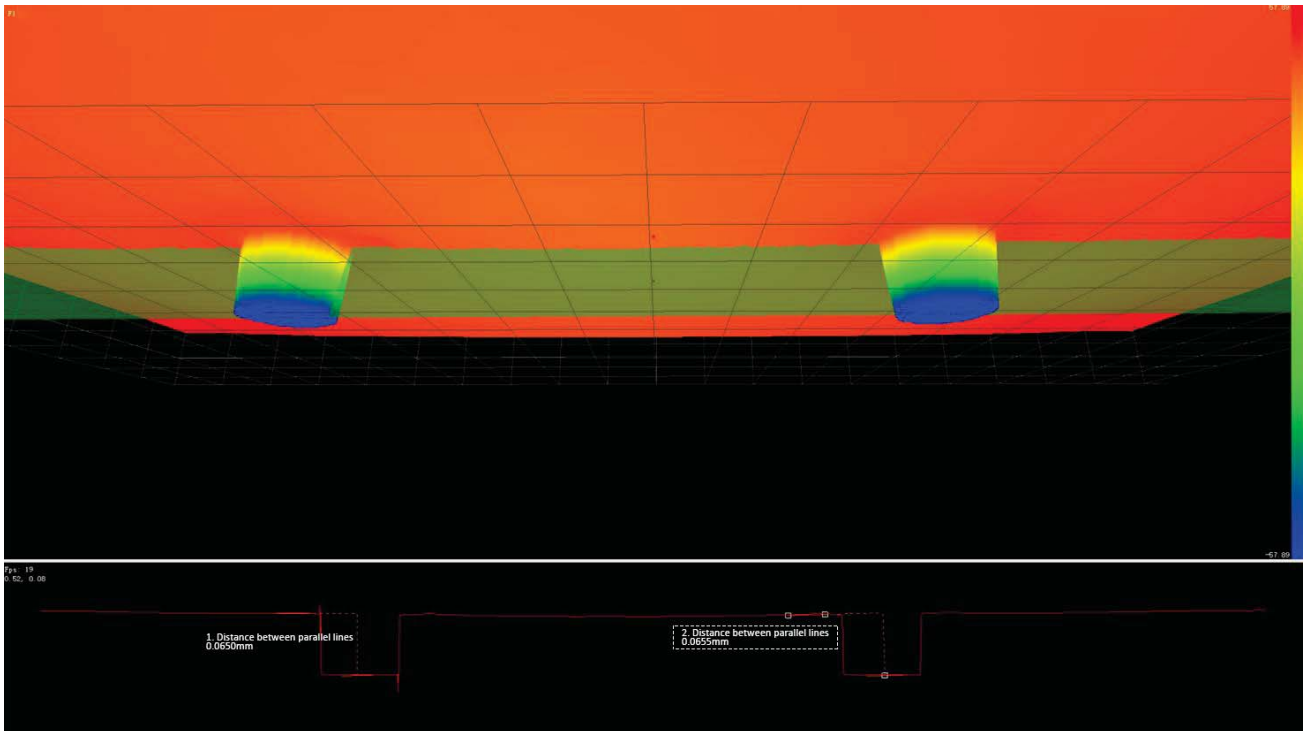
View Image 3D

Report Unit: pixel

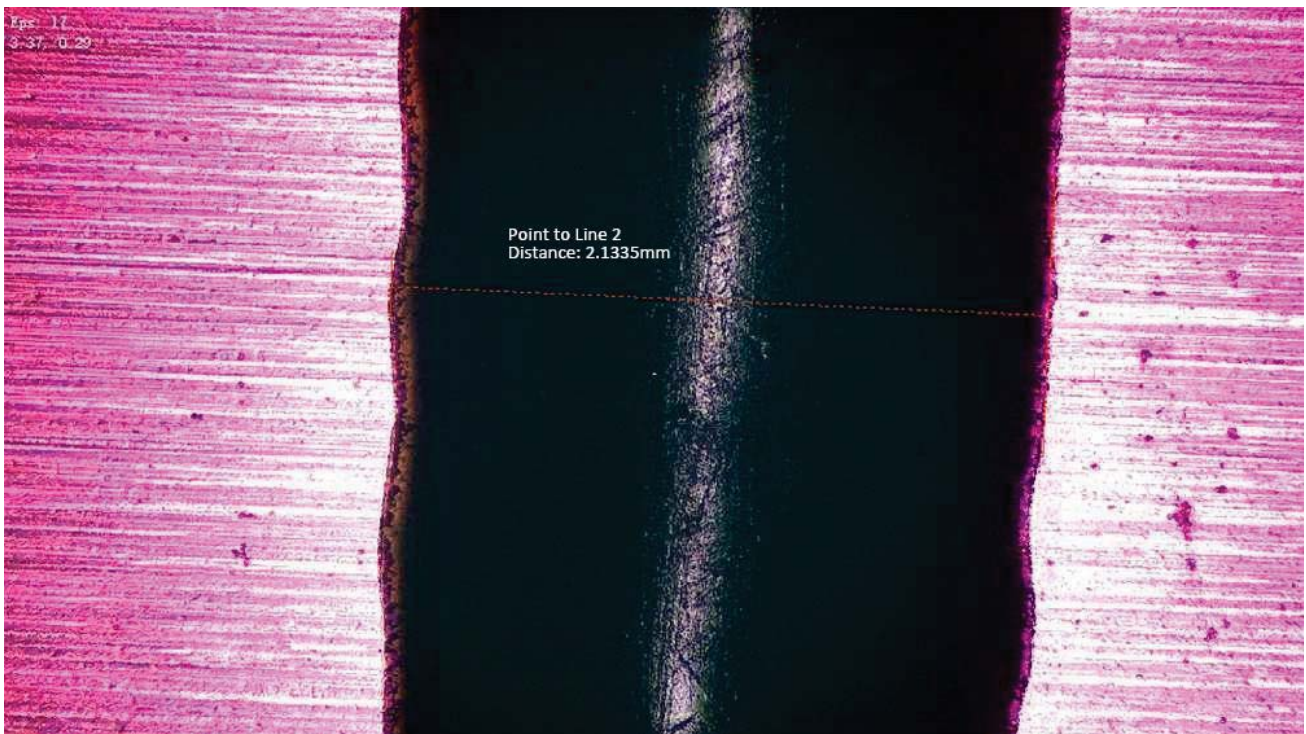
Name	Distance	Radius	Diameter	Angle	ArcLength	Width	Height	Perimeter	Area
1. Distance between Parallel line	0.0055mm								
2. Distance between Parallel line	0.0062mm								

Buttons: DeleteSel, DeleteAll, Export, Template

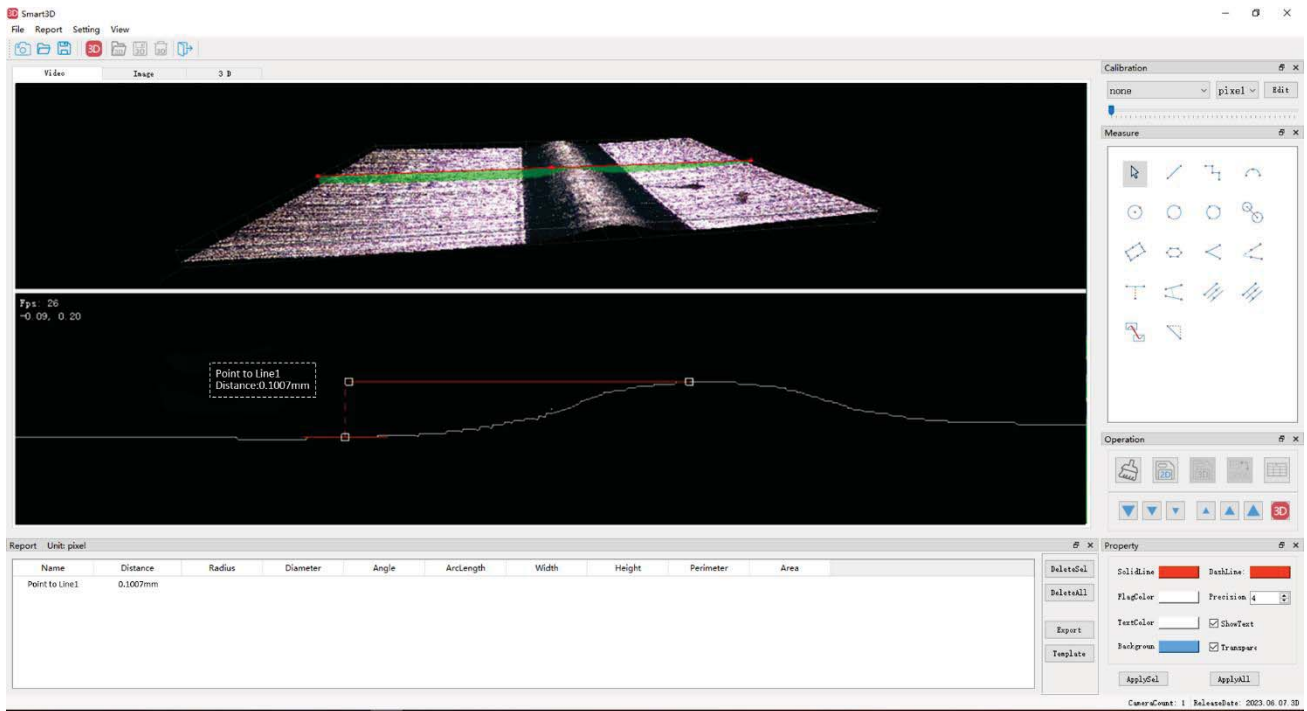
The chromatogram height chart - height measurement of laser blind hole



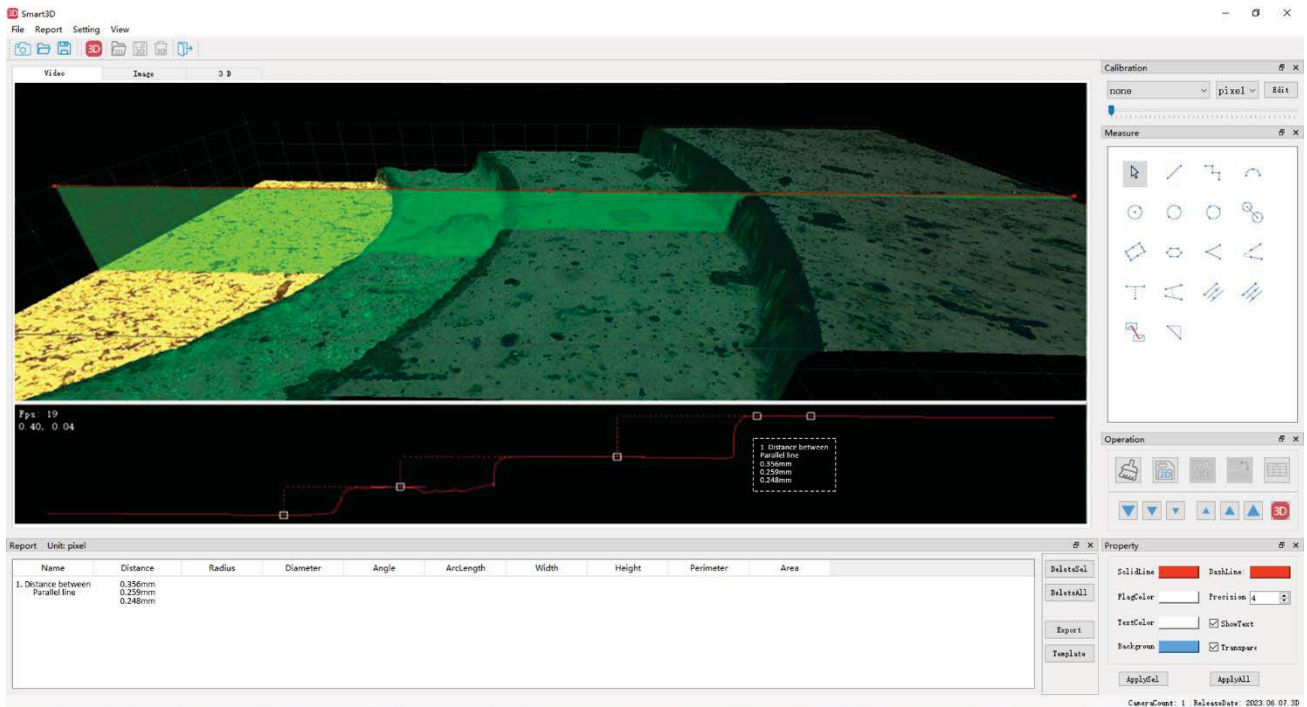
2D measurement after depth of field fusion – width measurement of black glue



Measurement after 3D synthesis – height measurement of adhesive



Measurement after 3D synthesis – height measurement of solder pad



Specification

Item	Specification	BS-10803D
Zoom Lens	Optical zoom magnification: 0.6X-5.0X	●
Zoom ratio	1:8.3	●
Camera	Ultra depth of field camera with HDMI output, 1/1.2" CMOS, resolution: 1920*1080, pixel size: 3.75μm*3.75μm, Frame rate: 60fps	●
C-mount Adapter	1.0X C-mount adapter	●
Ring Light	BAL-80A LED Ring light, brightness adjustable	●
	BAL-52AP LED polarizing ring light, brightness adjustable	○
	BAL-52ASL LED side ring light, brightness adjustable	○
	BAL-228A Four-zone lighting control separately big area LED ring light	○
	BAL-228AG LED four-zone ring light with frosted glass	○
	BAL-16P LED polarizing ring light, brightness adjustable	○
	BAL-52A LED Ring light, brightness adjustable	○
Back Light	BTL-60A LED back light	○
Point Light	BPL-3A LED point light, 3W, brightness adjustable.	○
	BPL-3MC LED multi color point light, 3W, white, purple, blue, yellow, red, green and mixed light, brightness adjustable	○
	BPL-4A LED point light with numerically adjustable light adapter, 4W, brightness adjustable	○
Bar Light	BBL-5A bar LED illuminator, 60 LED, 12V/5W	○
Cold Light Source	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BSL-15A-2 Cold LED light source with Dual Light Guide, 15W LED lamp	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 21V/150W Halogen lamp	○
Stage	BMS-302 X-Y moving stage	○
	BMS-303 X-Y moving stage	○
	BMS-311 X-Y measuring stage	○
	BMS-316A X-Y measuring stage	○
	BMS-316B X-Y measuring stage	○
	BMS-400A large working stage	○
	BMS-260A XY working stage	○
Stand and focus Arm	Round type column plain stand with motor focus arm. Stroke: 40mm	●
	BA1 Round type column plain stand with coarse focus arm. Stroke: 50mm.	○
	BA2 Round type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 50mm.	○
	BA3 Round type column plain stand with coarse and fine focus arm. Stroke: 67mm, fine precision: 0.002mm.	○
	BA4 Round type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 67mm, fine precision: 0.002mm.	○
	BA5 Square type column plain stand with coarse focus arm. Stroke: 150mm.	○
	BA6 Square type column plain stand with coarse focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 150mm.	○
	BA7 Square type column plain stand with coarse and fine focus arm. Stroke: 260mm, fine	○

	precision: 0.002mm.	
	BA8 Square type column plain stand with coarse and fine focus arm, transmitted 12V/5W LED illumination, brightness adjustable. Stroke: 260mm, fine precision: 0.002mm.	○
	BA9 multi-angle column plain stand with coarse focus arm. Stroke: 60mm.	○
	BA10 multi-angle column plain stand with coarse and fine focus arm. Stroke: 60mm, fine precision: 0.002mm.	○
	BA11 universal boom stand with coarse focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 50mm.	○
	BA12 universal boom stand with coarse and fine focus arm. Column height: 320mm, horizontal column length: 340mm, Φ32mm, 360° rotatable. Base size: 330mm*300mm. Stroke: 65mm, fine precision: 0.002mm.	○
	BA13 Round type column large plain stand with coarse focus arm. Column height: 320mm, Φ25mm, stroke: 50mm, base size: 380mm*260mm. Gross weight: 1.5kg.	○
	BFA-1 coarse focus arm. Stroke: 50mm.	○
	BFA-2 coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○
	BFA-3 multi-angle coarse focus arm, angle adjustable. Stroke: 50mm.	○
	BFA-4 multi-angle coarse and fine focus arm, angle adjustable. Stroke: 60mm, fine precision: 0.002mm.	○
	BFA-5 electric coarse and fine focus arm, supporting manual focusing and electric focusing. It has 5 preset positions, paired with 5 different magnification objectives. Stroke: 65mm, fine precision: 0.005mm.	○
	BFA-6 N interface coarse focus arm. Stroke: 50mm.	○
	BFA-7 N interface coarse and fine focus arm. Stroke: 65mm, fine precision: 0.002mm.	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Model	BS-1080M3D
Zoom magnification	0.6-5.0X
Working distance	86mm
FOV	19mm*11.5mm-2.5mm*1.5mm
Camera parameter	
Sensor size	1/1.2" CMOS
Pixel	2 mega-pixels
Resolution	1920*1080
Pixel size	3.75μm*3.75μm
Frame rate	60fps
Output	HDMI

Interface	2 pcs USB (for mouse and U disk)
Chip	FPGA+ARM
Operation system	LINUX3.10
Frequency rate	1Ghz
Suppress strong light	Continuously adjustable
Edge enhancement	Adjustable
Kernel structure	Dual-Cortex-A9
Stand parameter	
Focusing mode	Motor drive
Center distance	145mm
Height of post	318mm
Diameter of post	32mm
Base size	330mm*300mm
Travel distance	40mm
Precision	0.002mm
Adjusting Resolution	0.25μm

Zoom Body Magnification	Field of view
0.6X	19mm*11.5mm
0.8X	14.5mm*8.5mm
1X	11.6mm*6.6mm
1.5X	7.8mm*4.5mm
2X	6mm*3.5mm
2.5X	4.7mm*2.7mm
3X	4mm*2.4mm
3.5X	3.5mm*2mm
4X	3mm*1.8mm
4.5X	2.7mm*1.6mm