BS-1000 Series Monocular Zoom Microscope

1. BS-1010 Monocular Zoom Microscope

BS-1010A

BS-1010B

BS-1010C

BS-1010D

BS-1010E

Introduction

BS-1010 Series Monocular Zoom microscopes are precise optical system providing high resolution and sharp stereoscopic images. BS-1010A and BS-1010B can be flexibly equipped with a microscope stand, they also can be integrated in a semi-conductor and integrate circuit board production line. BS-1010B comes with a C-mount, it can work with various digital cameras.

Features

1. High quality zoom optical system 1:6.5.
2. Compact structure makes it occupy less working Space.
3. Various Digital cameras can be used with the microscope for image capture and analysis.

Application

BS-1010 series Monocular Zoom Microscope are widely used in educational demonstration, agriculture research, industrial material, semi-conductor and integrated circuit inspection area and so on.

Specification

Item	Specification		BS-1010A	BS-1010B	BS-1010C	BS-1010D	BS-1010E
Body (Mount Diameter: 45mm)	Eyepiece WF10×/18		●	●	●	●	●
	Zoom Ratio: 1: 6.5 (0.7×-4.5×)		●	●	●	●	●
	Total Magnification: 7×-45×		●	●	●	●	●
	Working Distance: 90mm		●	●	●	●	●
Video System	C-mount Adapter 1×			●	●	●	●
	C-mount Adapter 0.5×			○	○	○	○
	Various Digital Cameras			○	○	○	○
Optional Accessories	Auxiliary Objective	0.3×	○	○	○	○	○
		0.5×	○	○	○	○	○
		2×	○	○	○	○	○
Illumination	1W Reflected and 3W transmitted LED illumination				●		
	6V/15W Reflected and 6V/20W transmitted halogen illumination					●	
	Fluorescent ring light						●
	LED ring light						○
	Cold light illumination		○	○	○	○	○
Stand	BSZ-F23 stand with LED illumination		○	○	●		
	BSZ-F12 stand with halogen illumination		○	○		●	
	BSZ-F8 stand with fluorescent ring light		○	○			●

Note: ●Standard Outfit, ○Optional

Dimension

Unit：mm
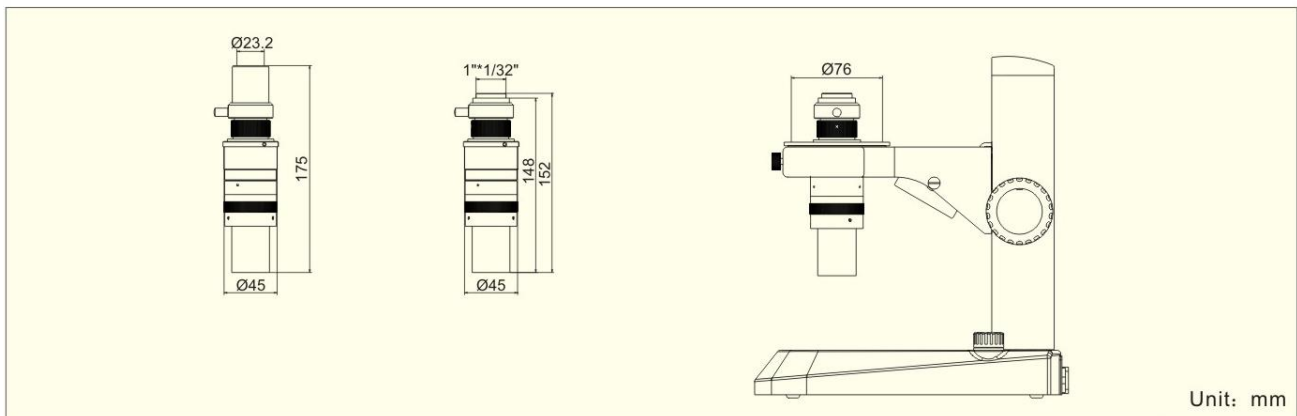
2. BS-1080 Monocular Zoom Microscope

BS-1080A BS-1080B BS-1080C

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. 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.
2. Compact design, so that all functions are concentrated in a tube, it is very suitable for the small installation space in modern equipment.
3. Zoom ratio 1:8.3, zoom range 0.6×-5×, standard working distance 88mm, can meet the requirement of machine vision conventional imaging.
4. There are a variety of auxiliary lens and C-mount eyepiece adapter for option, make the system's optical magnification range 0.054×-1500×, working distance 2mm-270mm, object field of view 0.004mm-20mm.
5. 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.
6. Adopt modular design, various additional accessories are optional to make the microscope a powerful devoice for your jobs.

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.

Specification

Item	Specification	BS-1080A	BS-1080B	BS-1080C
Optical System	Infinite apochromatic parallel optical system	●	●	●

Zoom Lens	Optical zoom magnification: 0.6×-5.0×	●	●	●
Zoom ratio	1:8.3	●	●	●
Viewing head	Monocular Viewing head with 10×/18mm, 15×/12mm, 20×/11mm eyepiece, Φ23.2mm	○	○	○
90° Prism	Used to turn the angle of camera or objective, so as to short the size	○	○	○
Mounting Size	Φ40mm	●	●	●
Mounting Adapter	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	○	○	○
LCD Digital Camera	BLC-520 digital camera with HDMI and WIFI output, can capture 2.0MP pictures, videos and do measurement, control with mouse; 11.6 inch LCD screen, resolution 1920*1080	○	○	○
	BLC-520AF Auto focus digital camera with HDMI and WIFI output, can capture 2.0MP pictures, videos and do measurement, control with mouse; 11.6 inch LCD screen, resolution 1920*1080	○	○	○
	BLC-550 digital camera with HDMI and WIFI output, can capture 5.0MP pictures, videos and do measurement, control with mouse; 11.6 inch LCD screen, resolution 1920*1080.	○	○	○
C-mount Adapter	0.3× C-mount adapter	○	○	○
	0.4× C-mount adapter	○	○	○
	0.5× C-mount adapter	●	●	●
	0.67× C-mount adapter	○	○	○
	1× C-mount adapter	○	○	○
	1.5× C-mount adapter	○	○	○
	2× C-mount adapter	○	○	○
	3× C-mount adapter	○	○	○
Auxiliary Lens	0.3× /WD: 270mm	○	○	○
	0.5× / WD: 160mm	○	○	○
	0.6× / WD: 130mm	○	○	○
	1× / WD: 88mm	●	●	●
	1.5× / WD: 52mm	○	○	○
	2× / WD: 39mm	○	○	○
Infinite LWD Plan Achromatic Metallurgical Objective Lens	5×, NA: 0.12, WD: 26.1mm	○	○	○
	10×, NA: 0.25, WD: 20.2mm	○	○	○
	20×, NA: 0.40, WD: 8.8mm	○	○	○
	40×, NA: 0.6, WD: 3.98mm	○	○	○
	50×, NA: 0.70, WD: 3.68mm	○	○	○
	60×, NA: 0.75, WD: 1.22mm	○	○	○
	80×, NA: 0.80, WD: 1.25mm	○	○	○
	100×, NA: 0.85, WD: 0.4mm	○	○	○
Infinite LWD Plan Apochromatic	5×, NA: 0.13, WD: 44.5mm	○	○	○
	10×, NA: 0.28, WD: 34mm	○	○	○

Metallurgical Objective	20×, NA: 0.29, WD: 31mm	○	○	○
	50×, NA: 0.42, WD: 20.1mm	○	○	○
Coaxial light Device	Coaxial Device, light input port Φ11mm (does not include light source)	○	○	○
	Coaxial point light source: 3W LED, 5500K, brightness adjustable	○	○	○
	Polarized Coaxial Device, light input port Φ11mm (does not include light source)	○	○	○
Ring Light	BAL-48A LED Ring light, brightness adjustable	○	●	●
	Polarized LED Ring light, brightness adjustable	○	○	○
Other Accessories	Metallurgical objective adapter (used to connect metallurgical objectives onto the zoom body)	○	○	○
	Triple Nosepiece for metallurgical objectives	○	○	○
	Quadruple Nosepiece for metallurgical objectives	○	○	○
	BSL-3B LED light source with dual goose neck light guide, 6.5W	○	○	○
	BMS-302 X-Y moving stage	○	○	○
	BSL2-150A-1 Cold light source with Single Light Guide, 150W	○	○	○
	BSL2-150A-2 Cold light source with Dual Light Guide, 150W	○	○	○
	BSL2-150A-O Cold light source with Annular Ring Light Guide, 150W	○	○	○
Stand and focus arm	BA1 Pillar type column plain stand with coarse focus arm	○	●	○
	BA2 Pillar type column plain stand with coarse and fine focus arm	○	○	●
	BA3 Square type column plain stand with coarse and fine focus arm	○	○	○
	BA4 Square type column plain stand with coarse and fine focus arm, transmitted 10W LED illumination	○	○	○
	BA5 multi-angle column plain stand with coarse focus arm	○	○	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Auxiliary Objectives		CCD C-mount Adapter							
		0.3×	0.4×	0.5×	0.67×	1.0×	1.5×	2.0×	3.0×
Standard 1.0×/ WD:86mm	Total Mag.	0.18×-1.5×	0.24×-2.0×	0.3×-2.5×	0.4×-3.35×	0.6-5.0×	0.9×-7.5×	1.2× -10.0×	1.8×-15×
	FOV (mm)	26×20-3×2.0	20×15-2×1.8	16×12-1.9×1.4	12×9-1.43×1.07	8×6-0.9×0.7	5×4-0.6×0.5	4×3-0.5×0.36	2.6×2-0.3×0.2
0.3×/ WD:270mm	Total Mag.	0.05×-0.45×	0.07×-0.6×	0.09×-0.75×	0.12×-1.0×	0.18×-1.5×	0.27×-2.25×	0.36×-3×	0.54×-4.5×
	FOV (mm)	96×72-10.6×8	68×51-8×6	53×40-6.4×4.8	40×30-4.8×3.6	26×20-3.2×2.4	18×13-2×1.6	13×10-1.6×1.2	9×6.6-1.1×0.8
0.5× /WD:160mm	Total Mag.	0.09×-0.75×	0.12×-1×	0.15×-1.25×	0.201×-1.68×	0.3×-2.5×	0.45×-3.75×	0.6×-5×	0.9×-7.5×
	FOV (mm)	53×40-6.4×4.8	40×30-4.8×3.6	32×24-3.8×2.8	23.88×17.9-2.85×2.14	16×12-1.9×1.4	11×8-1.3×0.9	8×6-0.9×0.7	5×4-0.6×0.5
0.6×/ WD:130mm	Total Mag.	0.22×-0.9×	0.144×-1.2×	0.18×-1.5×	0.24×-2.0×	0.36×-3×	0.54×-4.5×	0.72×-6×	1.08×-9×

	FOV (mm)	22×16-.3 ×4	33×25-4×3	26×20-3×2	20×15-2.4×1.8	13×10-1.6×1.2	9×6.6-1.1×0.8	6.6×51-0.8×0.6	4.4×3-0.5×0.4
1.5×/ WD:50mm	Total Mag.	0.27×-2.25×	0.36×-3×	0.45×-3.75×	0.6×-5.0×	0.9×-7.5×	1.35×-11.25×	1.8×-15×	2.7×-22.5×
	FOV (mm)	18×13-2×1.6	13×10-1.6×1.2	11×8-1.3×0.9	8×6-0.9×0.7	5×4-0.6×0.5	3.5×2.6-0.4×0.3	2.6×2-0.3×0.24	1.7×1.3-0.2×0.1
2.0×/ WD:39mm	Total Mag.	0.36×-3×	0.48×-4×	0.6×-5.0×	0.8×-6.7×	1.2×-10×	1.8×-15×	2.4×-20×	3.6×-30×
	FOV (mm)	13×10-1.6×1.2	10×7.5-1.2×0.9	8×6-0.9×0.7	6×4.5-0.7×0.54	4×3-0.5×0.36	2.6×2-0.3×0.2	2×1.5-0.2×0.18	1.3×1-0.16×0.12

Remark: Total magnification of lens = Magnification of zoom body × CCD adapter magnification × Objective magnification, The range of Field of View is based on 1/3"CCD Camera (Sensor Width 4.8mm, Height 3.6mm), FOV= the size of camera sensor / total Optical Magnification.

Accessories

System diagram

CCD C-mount adapter

BS-1080A with coaxial device and triple nosepiece

Eyepiece head

90° Prism

BS-1080A with coaxial device

BS-1080LCD1/2/3/4

Auxiliary Objective

BAL-48A LED ring light

Polarized LED ring light(back)

Polarized LED ring light

Polarized Coaxial Device

Coaxial Device

LED point light for Coaxial Device

BMS-302 X-Y stage

BS-1080B with LCD screen holder

LCD screen holder

90° Prism on C-mount

90° Prism on objective

Focus arm with camera holder(Up)

Focus arm with camera holder(Down)

BSL-3B

BSL2-150A

Double Rigid Fiber   Single Rigid Fiber   Ring Flexible Fiber

BA1 Stand   BA2 Stand
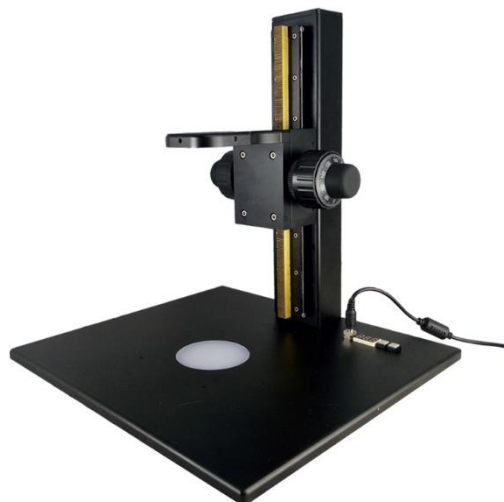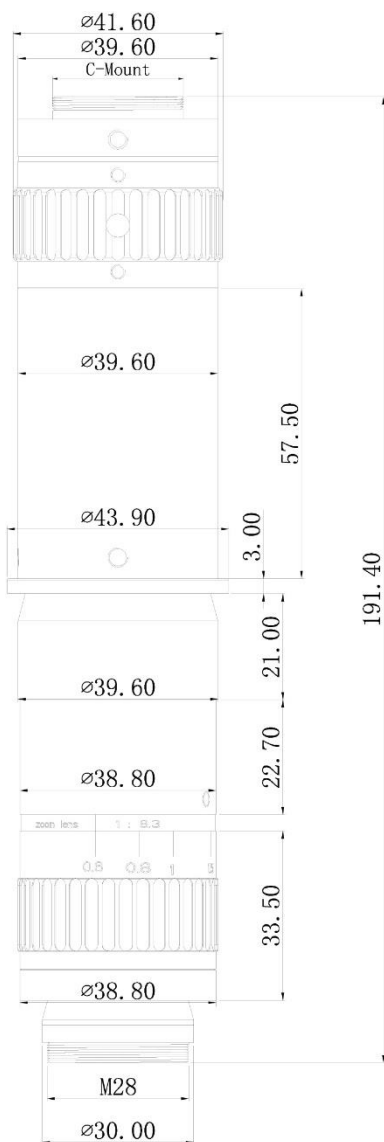
BA3 Stand   BA4 Stand

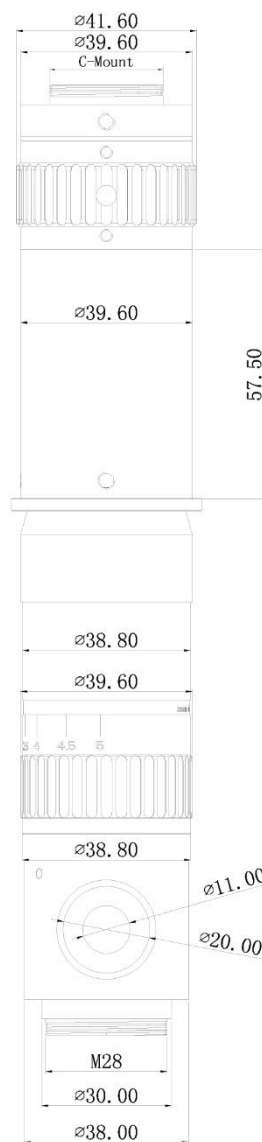BA5 Stand(left)   BA5 Stand(horizontal)   BA5 Stand(right)
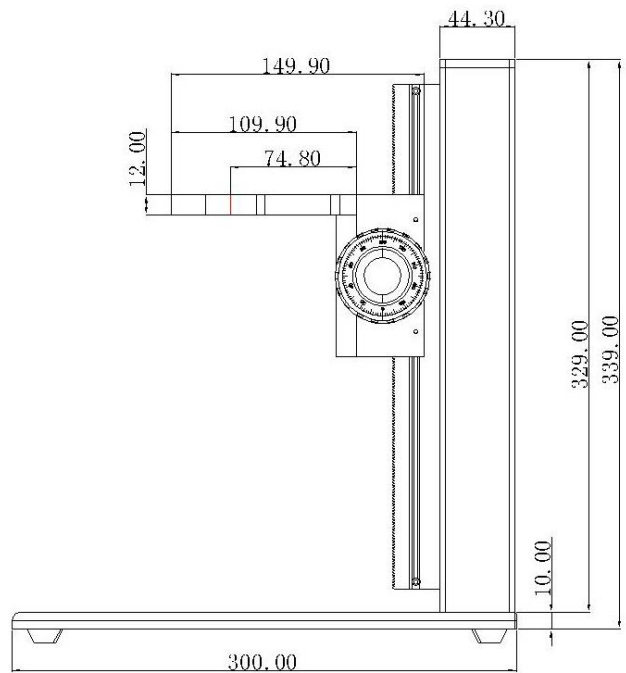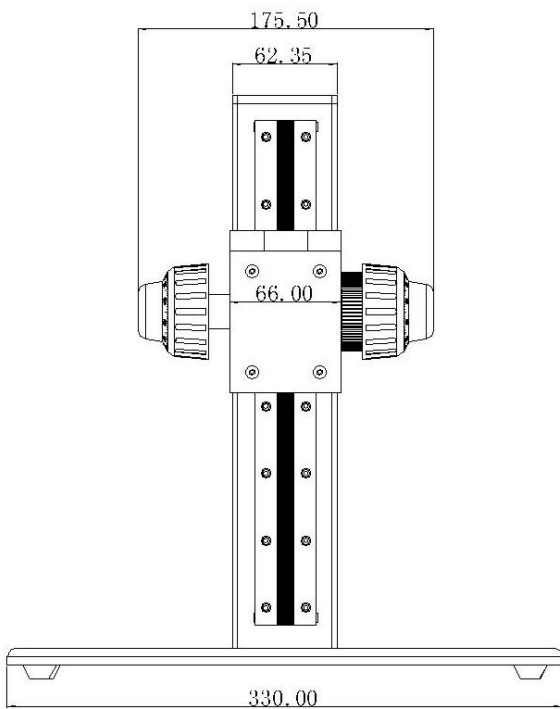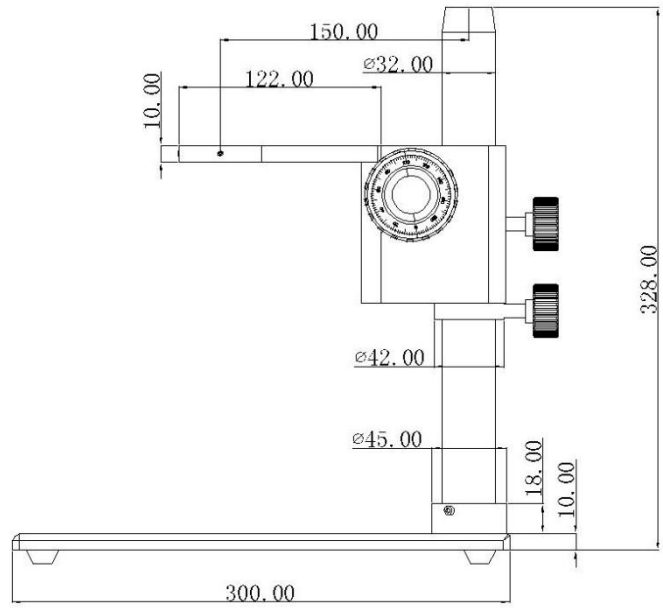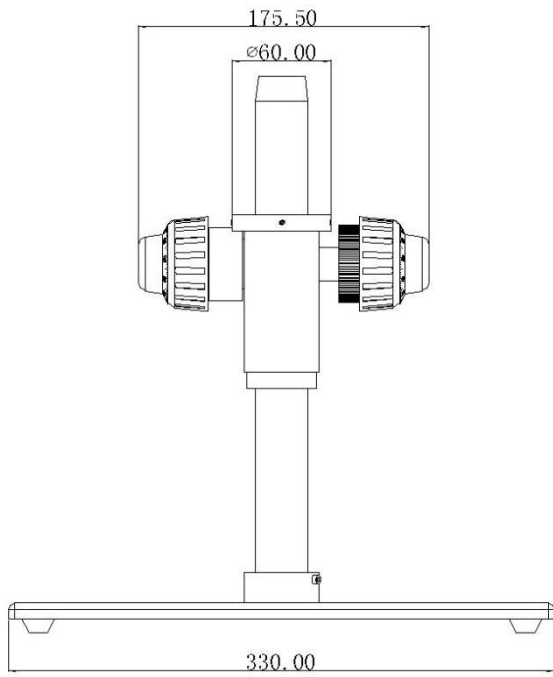
Dimension

BS-1080A Dimension   BS-1080A with coaxial device Dimension
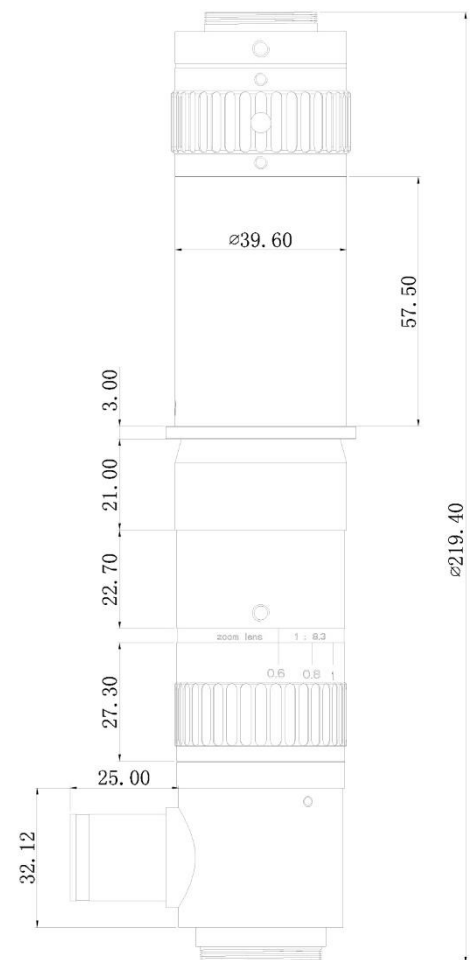
Unit: mm

3. BS-1080LCD Digital Monocular Zoom Microscope

BS-1080LCD1/2/3/4

Introduction

BS-1080LCD Series LCD Digital Monocular Zoom microscopes adopt apochromatic parallel optical imaging system and provide high resolution and sharp stereoscopic images. The camera system comes with a HDMI, WIFI camera and 11.6" retina LCD screen. The camera can be controlled with mouse to take pictures, take videos and make measurement, it can work without PC. This series microscopes are designed for the applications in the fields of machine vision, industrial inspection and scientific research. Modularization product portfolio and excellent performance make them a better choice in these areas.

Features

1. Adopt apochromatic parallel optical imaging system, use advanced multi-layer coating technology. Get high-resolution and high contrast images, naturally restore the true colors of observed objects.
2. Compact design, it is very suitable for the small installation space.
3. Zoom ratio 1:8.3, zoom range 0.6×-5×, standard working distance 88mm, can meet the requirement of circuit board, electronics, semi-conductor and other industrial inspections.
4. There are a variety of auxiliary lens and C-mount eyepiece adapter for option, make the system's total magnification range 1.65×-1050×, working distance 0.4mm-270mm, object field of view 0.12mm-72mm.
5. BAL-48A LED Ring light is standard, 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.
6. Adopt modular design, various additional accessories are optional to make the microscope a powerful devoice for your jobs.
7. The camera system comes with a HDMI, WIFI camera and 11.6" retina LCD screen, controlled by mouse.

Application

BS-1080LCD series LCD Digital Monocular Zoom Microscope are widely used in educational demonstration, agriculture research, industrial material, semi-conductor, integrated circuit board inspection area and so on.

Specification

Item	Specification	BS-1080 LCD1	BS-1080 LCD2	BS-1080 LCD3	BS-1080 LCD3
Optical System	Infinite apochromatic parallel optical system	●	●	●	●
Zoom Lens	Optical zoom magnification: 0.6-5.0×	●	●	●	●
Zoom ratio	1:8.3	●	●	●	●
Mounting Size	Φ40mm	●	●	●	●
LCD Digital Camera	BLC-520 digital camera with HDMI and WIFI output, can capture 2.0MP pictures, videos and do measurement, control with mouse; 11.6 inch LCD screen, resolution 1920*1080	●			
	BLC-520AF Auto focus digital camera with HDMI and WIFI output, can capture 2.0MP pictures, videos and do measurement, control with mouse; 11.6 inch LCD screen, resolution 1920*1080		●		
	BLC-550 digital camera with HDMI and WIFI output, can capture 5.0MP pictures, videos and do measurement, control with mouse; 11.6 inch LCD screen, resolution 1920*1080.			●	
	BLC-550AF Auto focus digital camera with HDMI and WIFI output, can capture 5.0MP pictures, videos and do measurement, control with mouse; 11.6 inch LCD screen, resolution 1920*1080				●
C-mount Adapter	0.3× C-mount adapter	○	○	○	○
	0.4× C-mount adapter	○	○	○	○
	0.5× C-mount adapter	○	○	○	○
	0.67× C-mount adapter	○	○	○	○
	1× C-mount adapter	●	●	●	●
	1.5× C-mount adapter	○	○	○	○
	2× C-mount adapter	○	○	○	○
	3× C-mount adapter	○	○	○	○
Auxiliary Lens	0.3× /WD: 270mm	○	○	○	○
	0.5× / WD: 160mm	○	○	○	○
	0.6× / WD: 130mm	○	○	○	○
	1× / WD: 88mm	●	●	●	●
	1.5× / WD: 52mm	○	○	○	○
	2× / WD: 39mm	○	○	○	○
Infinite LWD Plan Achromatic Metallurgical Objective Lens	5×, NA: 0.12, WD: 26.1mm	○	○	○	○
	10×, NA: 0.25, WD: 20.2mm	○	○	○	○
	20×, NA: 0.40, WD: 8.8mm	○	○	○	○
	40×, NA: 0.6, WD: 3.98mm	○	○	○	○
	50×, NA: 0.70, WD: 3.68mm	○	○	○	○

	60×, NA: 0.75, WD: 1.22mm	○	○	○	○
	80×, NA: 0.80, WD: 1.25mm	○	○	○	○
	100×, NA: 0.85, WD: 0.4mm	○	○	○	○
Infinite LWD Plan Apochromatic Metallurgical Objective	5×, NA: 0.13, WD: 44.5mm	○	○	○	○
	10×, NA: 0.28, WD: 34mm	○	○	○	○
	20×, NA: 0.29, WD: 31mm	○	○	○	○
	50×, NA: 0.42, WD: 20.1mm	○	○	○	○
Coaxial light Device	Coaxial Device, light input port Φ11mm (does not include light source)	○	○	○	○
	Coaxial point light source: 3W LED, 5500K, brightness adjustable	○	○	○	○
	Polarized Coaxial Device, light input port Φ11mm (does not include light source)	○	○	○	○
Ring Light	BAL-48A LED Ring light, brightness adjustable	●	●	●	●
	Polarized LED Ring light, brightness adjustable	○	○	○	○
Other Accessories	Metallurgical objective adapter (used to connect metallurgical objectives onto the zoom body)	○	○	○	○
	Triple Nosepiece for metallurgical objectives	○	○	○	○
	BSL-3B LED light source with dual goose neck light guide, 6.5W	○	○	○	○
	BMS-302 X-Y moving stage	○	○	○	○
Stand and focus arm	BA1 Pillar type column plain stand with coarse focus arm, base size 330×300×10mm	●	●	●	●
	BA2 Pillar type column plain stand with coarse and fine focus arm, base size 330×300×10mm	○	○	○	○
	BA3 Square type column plain stand with coarse and fine focus arm, base size 330×300×10mm	○	○	○	○
	BA4 Square type column plain stand with coarse and fine focus arm, transmitted 10W LED illumination, base size 330×300×10mm	○	○	○	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Auxiliary Objectives		CCD C-mount Adapter							
		0.3×	0.4×	0.5×	0.67×	1.0×	1.5×	2.0×	3.0×
Standard 1.0×/ WD:86mm	Total Mag.	0.18×-1.5×	0.24×-2.0×	0.3×-2.5×	0.4×-3.35×	0.6-5.0×	0.9×-7.5×	1.2× -10.0×	1.8×-15×
	FOV (mm)	26×20-3×2.0	20×15-2×1.8	16×12-1.9×1.4	12×9-1.43×1.07	8×6-0.9×0.7	5×4-0.6×0.5	4×3-0.5×0.36	2.6×2-0.3×0.2
0.3×/ WD:270mm	Total Mag.	0.05×-0.45×	0.07×-0.6×	0.09×-0.75×	0.12×-1.0×	0.18×-1.5×	0.27×-2.25×	0.36×-3×	0.54×-4.5×
	FOV (mm)	96×72-10.6×8	68×51-8×6	53×40-6.4×4.8	40×30-4.8×3.6	26×20-3.2×2.4	18×13-2×1.6	13×10-1.6×1.2	9×6.6-1.1×0.8
0.5× /WD:160mm	Total Mag.	0.09×-0.75×	0.12×-1×	0.15×-1.25×	0.201×-1.68×	0.3×-2.5×	0.45×-3.75×	0.6×-5×	0.9×-7.5×

	FOV (mm)	53×40-6.4×4.8	40×30-4.8×3.6	32×24-3.8×2.8	23.88×17.9-2.85×2.14	16×12-1.9×1.4	11×8-1.3×0.9	8×6-0.9×0.7	5×4-0.6×0.5
0.6×/ WD:130mm	Total Mag.	0.22×-0.9×	0.144×-1.2×	0.18×-1.5×	0.24×-2.0×	0.36×-3×	0.54×-4.5×	0.72×-6×	1.08×-9×
	FOV (mm)	22×16-.3 ×4	33×25-4×3	26×20-3×2	20×15-2.4×1.8	13×10-1.6×1.2	9×6.6-1.1×0.8	6.6×51-0.8×0.6	4.4×3-0.5×0.4
1.5×/ WD:50mm	Total Mag.	0.27×-2.25×	0.36×-3×	0.45×-3.75×	0.6×-5.0×	0.9×-7.5×	1.35×-11.25×	1.8×-15×	2.7×-22.5×
	FOV (mm)	18×13-2×1.6	13×10-1.6×1.2	11×8-1.3×0.9	8×6-0.9×0.7	5×4-0.6×0.5	3.5×2.6-0.4×0.3	2.6×2-0.3×0.24	1.7×1.3-0.2×0.1
2.0×/ WD:39mm	Total Mag.	0.36×-3×	0.48×-4×	0.6×-5.0×	0.8×-6.7×	1.2×-10×	1.8×-15×	2.4×-20×	3.6×-30×
	FOV (mm)	13×10-1.6×1.2	10×7.5-1.2×0.9	8×6-0.9×0.7	6×4.5-0.7×0.54	4×3-0.5×0.36	2.6×2-0.3×0.2	2×1.5-0.2×0.18	1.3×1-0.16×0.12

Remark: Total magnification of lens = Magnification of zoom body × CCD adapter magnification × Objective magnification, The range of Field of View is based on 1/3"CCD Camera (Sensor Width 4.8mm, Height 3.6mm), FOV= the size of camera sensor / total Optical Magnification.

Accessories

CCD C-mount adapter

BS-1080A with coaxial device

Auxiliary Objective

BAL-48A LED ring light

LED point light for Coaxial Device
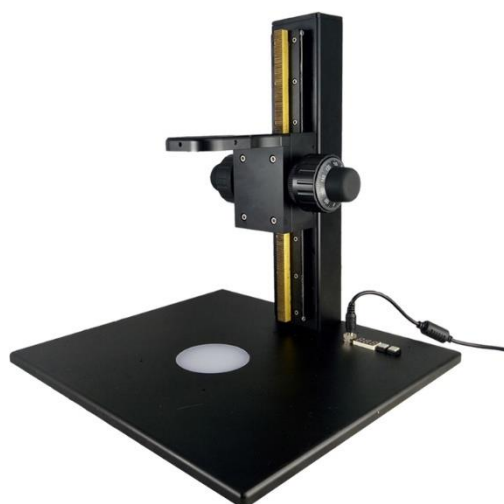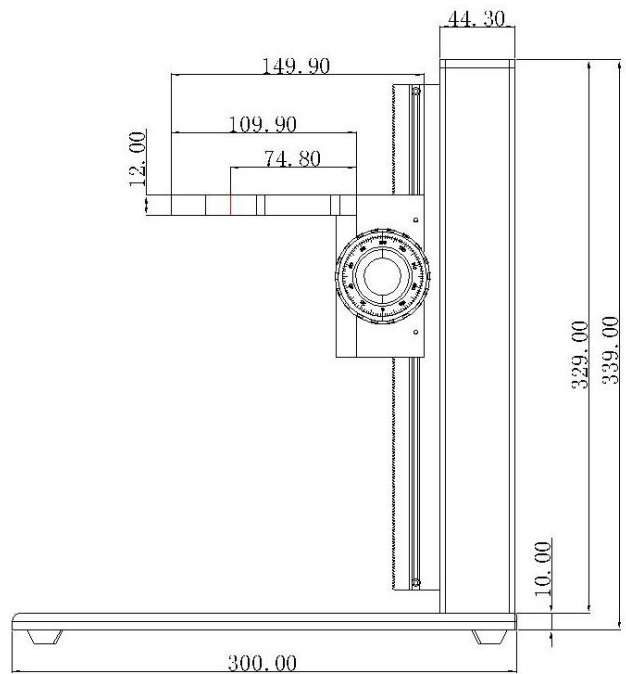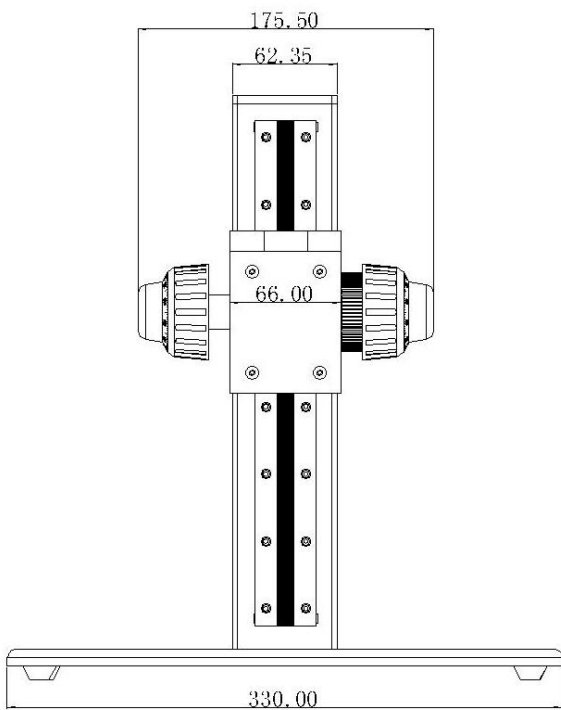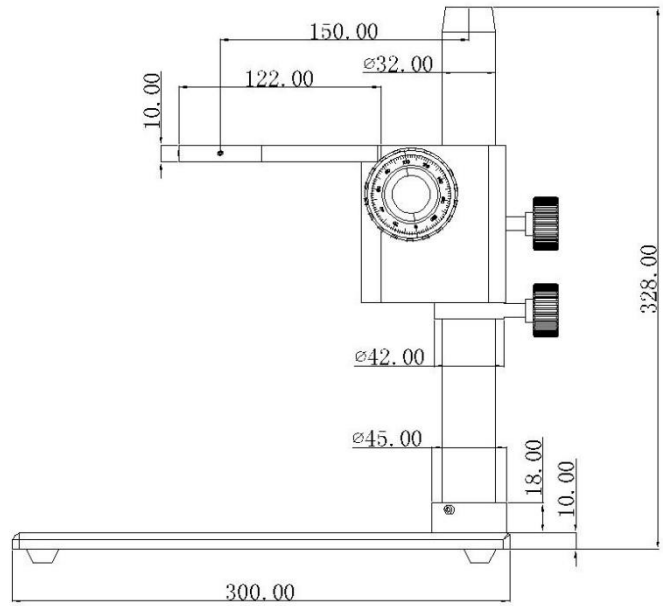
BMS-302 X-Y stage

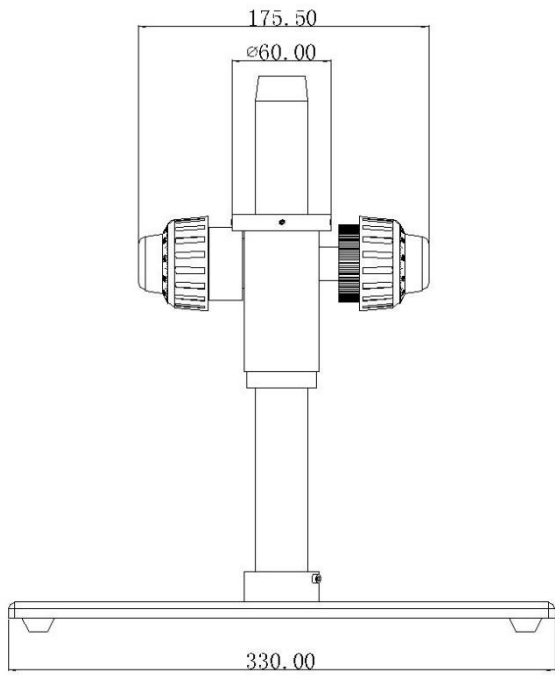BA1 Stand

BA2 Stand

BA3 Stand

BA4 Stand

Dimension

Unit: mm

4. BS-1080BLHD1 LCD Digital Zoom Video Microscope

BS-1080BLHD1

Introduction

BS-1080BLHD1 LCD Digital Zoom Video microscope adopts apochromatic parallel optical imaging system and provide high resolution and sharp stereoscopic images. The camera system comes with a HDMI, WIFI camera and 12.5" retina LCD screen. The camera can be controlled with mouse to take pictures, take videos and make measurement, it can work without PC. This microscope has been designed for the applications in the fields of industrial inspection and scientific research. Modularization product portfolio and excellent performance make them a better choice in these areas.

Features

1. Adopt apochromatic parallel optical imaging system, use advanced multi-layer coating technology. Get high-resolution and high contrast images, naturally restore the true colors of observed objects.
2. Compact design, it is very suitable for the small installation space.
3. Zoom ratio 1:8.3, zoom range 0.6×-5×, standard working distance 88mm, can meet the requirement of circuit board, electronics, semi-conductor and other industrial inspections.
4. There are a variety of auxiliary lens and C-mount eyepiece adapter for option, make the system's total magnification range 1.65×-1050×, working distance 0.4mm-270mm, object field of view 0.12mm-72mm.
5. LED Ring light is standard, 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.
6. Adopt modular design, various additional accessories are optional to make the microscope a powerful devoice for your jobs.
7. The camera system comes with a HDMI, WIFI camera and 12.5" retina LCD screen, controlled by mouse.

Application

BS-1080BLHD1 LCD Digital Zoom Video Microscope is widely used in educational demonstration, agriculture research, industrial material, semi-conductor, integrated circuit board, electronics inspection area and so on.

Specification

Item	Specification	BS-1080BLHD1
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6-5.0×	●
Zoom ratio	1:8.3	●
Mounting Size	Φ40mm	●
Digital Camera	BWHC-1080B digital camera with HDMI and WIFI output, can capture 5.0MP pictures, videos and do measurement, control with mouse	●
	BWHC-4K8MPA digital camera with HDMI and WIFI output, can capture 8.0MP pictures, 4K videos and do measurement, control with mouse	O
LCD Monitor	12.5 inches LCD screen, resolution: 1920×1080.	●
	Color display: 16.7m	●
	Brightness: 300Nit	●
	Contrast: 800:1	●
	Visible angle: 170° horizontal & vertical	●
	Power supply: input AC100-240V, output: DC12V/5A/60W	●
	Input interface: HDMI1, HDMI2	●
	Output interface: 3 units of DC5V/2A	●
C-mount Adapter	0.3× C-mount adapter	O
	0.4× C-mount adapter	O
	0.5× C-mount adapter	●
	0.67× C-mount adapter	O
	1× C-mount adapter	O
	1.5× C-mount adapter	O
	2× C-mount adapter	O
	3× C-mount adapter	O
Auxiliary Lens	0.3× /WD: 270mm	O
	0.5× / WD: 160mm	O
	0.6× / WD: 130mm	O
	1× / WD: 88mm	●
	1.5× / WD: 52mm	O
	2× / WD: 39mm	O
Infinite LWD Plan Achromatic Metallurgical Objective Lens	5×, NA: 0.12, WD: 26.1mm	O
	10×, NA: 0.25, WD: 20.2mm	O
	20×, NA: 0.40, WD: 8.8mm	O
	40×, NA: 0.6, WD: 3.98mm	O
	50×, NA: 0.70, WD: 3.68mm	O

	60×, NA: 0.75, WD: 1.22mm	○
	80×, NA: 0.80, WD: 1.25mm	○
	100×, NA: 0.85, WD: 0.4mm	○
Infinite LWD Plan Apochromatic Metallurgical Objective	5×, NA: 0.13, WD: 44.5mm	○
	10×, NA: 0.28, WD: 34mm	○
	20×, NA: 0.29, WD: 31mm	○
	50×, NA: 0.42, WD: 20.1mm	○
Coaxial light Device	Coaxial Device, light input port Φ11mm (does not include light source)	○
	Coaxial point light source: 3W LED, 5500K, brightness adjustable	○
	Polarized Coaxial Device, light input port Φ11mm (does not include light source)	○
Ring Light	LED Ring light, brightness adjustable	●
	Polarized LED Ring light, brightness adjustable	○
Other Accessories	Metallurgical objective adapter (used to connect metallurgical objectives onto the zoom body)	○
	Triple Nosepiece for metallurgical objectives	○
	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BMS-302 X-Y moving stage	○
Stand and focus arm	BA1 Pillar type plain stand with coarse focus arm	●
	BA2 Pillar type plain stand with coarse and fine focus arm	○

Note: ●Standard Outfit, ○Optional

Optical Parameter

Auxiliary Objectives		CCD C-mount Adapter							
		0.3×	0.4×	0.5×	0.67×	1.0×	1.5×	2.0×	3.0×
Standard 1.0×/ WD:86mm	Total Mag.	0.18×-1.5×	0.24×-2.0×	0.3×-2.5×	0.4×-3.35×	0.6-5.0×	0.9×-7.5×	1.2× -10.0×	1.8×-15×
	FOV (mm)	26×20-3×2.0	20×15-2×1.8	16×12-1.9×1.4	12×9-1.43×1.07	8×6-0.9×0.7	5×4-0.6×0.5	4×3-0.5×0.36	2.6×2-0.3×0.2
0.3×/ WD:270mm	Total Mag.	0.05×-0.45×	0.07×-0.6×	0.09×-0.75×	0.12×-1.0×	0.18×-1.5×	0.27×-2.25×	0.36×-3×	0.54×-4.5×
	FOV (mm)	96×72-10.6×8	68×51-8×6	53×40-6.4×4.8	40×30-4.8×3.6	26×20-3.2×2.4	18×13-2×1.6	13×10-1.6×1.2	9×6.6-1.1×0.8
0.5× /WD:160mm	Total Mag.	0.09×-0.75×	0.12×-1×	0.15×-1.25×	0.201×-1.68×	0.3×-2.5×	0.45×-3.75×	0.6×-5×	0.9×-7.5×
	FOV (mm)	53×40-6.4×4.8	40×30-4.8×3.6	32×24-3.8×2.8	23.88×17.9-2.85×2.14	16×12-1.9×1.4	11×8-1.3×0.9	8×6-0.9×0.7	5×4-0.6×0.5
0.6×/ WD:130mm	Total Mag.	0.22×-0.9×	0.144×-1.2×	0.18×-1.5×	0.24×-2.0×	0.36×-3×	0.54×-4.5×	0.72×-6×	1.08×-9×
	FOV (mm)	22×16-.3 ×4	33×25-4×3	26×20-3×2	20×15-2.4×1.8	13×10-1.6×1.2	9×6.6-1.1×0.8	6.6×51-0.8×0.6	4.4×3-0.5×0.4

1.5×/ WD:50mm	Total Mag.	0.27×-2.25×	0.36×-3×	0.45×-3.75×	0.6×-5.0×	0.9×-7.5×	1.35×-11.25×	1.8×-15×	2.7×-22.5×
	FOV (mm)	18×13-2×1.6	13×10-1.6×1.2	11×8-1.3×0.9	8×6-0.9×0.7	5×4-0.6×0.5	3.5×2.6-0.4×0.3	2.6×2-0.3×0.24	1.7×1.3-0.2×0.1
2.0×/ WD:39mm	Total Mag.	0.36×-3×	0.48×-4×	0.6×-5.0×	0.8×-6.7×	1.2×-10×	1.8×-15×	2.4×-20×	3.6×-30×
	FOV (mm)	13×10-1.6×1.2	10×7.5-1.2×0.9	8×6-0.9×0.7	6×4.5-0.7×0.54	4×3-0.5×0.36	2.6×2-0.3×0.2	2×1.5-0.2×0.18	1.3×1-0.16×0.12

Remark: Total magnification of lens = Magnification of zoom body × CCD adapter magnification × Objective magnification, The range of Field of View is based on 1/3"CCD Camera (Sensor Width 4.8mm, Height 3.6mm), FOV= the size of camera sensor / total Optical Magnification.

Accessories

CCD C-mount adapter

BS-1080A with coaxial device

Auxiliary Objective

BAL-48A LED ring light

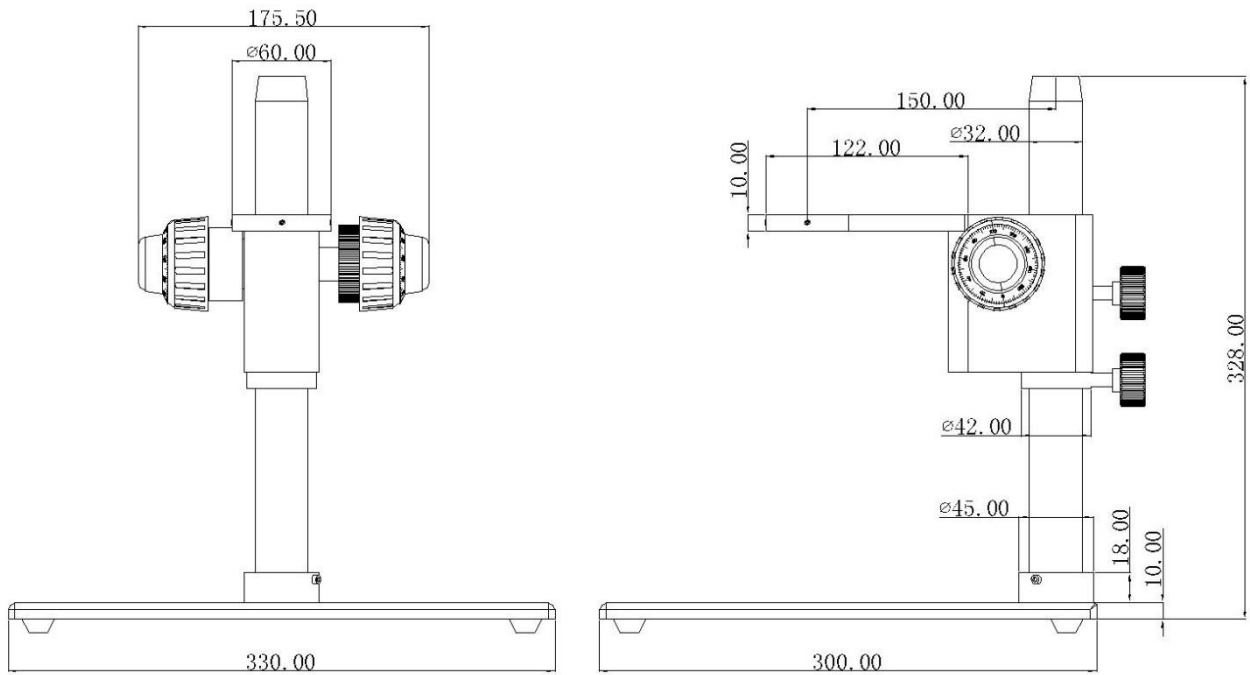LED point light for Coaxial Device

BMS-302 X-Y stage

BA1 Stand

BA2 Stand

Dimension

175.50

⌀60.00

150.00

⌀32.00

10.00

122.00

328.00

⌀42.00

⌀45.00

18.00

10.00

330.00

300.00

Unit: mm

5. BS-1080BL3DHD1 LCD Digital 3D Video Microscope

BS-1080BL3DHD1

Introduction

BS-1080BL3DHD1 LCD Digital Zoom Video microscope adopts apochromatic parallel optical imaging system and provide high resolution and sharp stereoscopic images. The zoom ratio is 1:8.3 with high quality LED ring light and 3D attachment. The camera system comes with a HDMI, WIFI camera and 12.5" retina LCD screen. The camera can be controlled with mouse to take pictures, take videos and make measurement, it can work without PC. This microscope has been designed for the applications in the fields of industrial inspection and scientific research. Modularization product portfolio and excellent performance make them a better choice in these areas.

Features

1. Adopt apochromatic parallel optical imaging system, use advanced multi-layer coating technology. Get high-resolution and high contrast images, naturally restore the true colors of observed objects.

2. Compact design, it is very suitable for the small installation space.

3. Zoom ratio 1:8.3, zoom range 0.6×-5×, standard working distance 88mm, can meet the requirement of circuit board, electronics, semi-conductor and other industrial inspections.

4. 0.3×, 0.5×, 1× C-mount eyepiece adapter are available to provide more magnification.

5. LED Ring light has 4 zones, can be controlled separately, the uniform light is suitable for high reflectivity surface precision detection and limited exterior lighting occasions.

6. The 3D attachment can be used to see the different side of samples(side view 3D microscope), very convenient for inspection.

7. The camera system comes with a HDMI, WIFI camera and 12.5" retina LCD screen, controlled by mouse.

Application

BS-1080BL3DHD1 LCD Digital 3D Zoom Video Microscope is widely used in educational demonstration, agriculture research, industrial material, semi-conductor, integrated circuit board, electronics inspection area and so on.

Specification

Item	Specification	BS-1080BL3DHD1
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6-5.0×	●
Zoom ratio	1:8.3	●
Mounting Size	Φ40mm	●
Digital Camera	BWHC-1080B digital camera with HDMI and WIFI output, can capture 5.0MP pictures, videos and do measurement, control with mouse, also can be connected to PC to tablet PC, smart phone via WIFI interface.	●
LCD Monitor	12.5 inches LCD screen, resolution: 1920×1080.	●
	Color display: 16.7m	●
	Brightness: 300Nit	●
	Contrast: 800:1	●
	Visible angle: 170° horizontal & vertical	●
	Power supply: input AC100-240V, output: DC12V/5A/60W	●
	Input interface: HDMI1, HDMI2	●
	Output interface: 3 units of DC5V/2A	●
C-mount Adapter	0.3× C-mount adapter	○
	0.4× C-mount adapter	○
	0.5× C-mount adapter	●
	0.67× C-mount adapter	○
	1× C-mount adapter	○
	1.5× C-mount adapter	○
	2× C-mount adapter	○
	3× C-mount adapter	○
Objective Lens	1× / WD: 88mm	●
Ring Light	Four-Zone LED Ring light, brightness adjustable	●
3D Attachment	Can be used to see the different side of samples (side view)	●
Other Accessories	BSL-3B LED light source with dual goose neck light guide, 6.5W	○
	BMS-302 X-Y moving stage	○
Stand and focus arm	BA1 Pillar type plain stand with coarse focus arm	●
	BA2 Pillar type plain stand with coarse and fine focus arm	○
	BA3 Square type plain stand with coarse and fine focus arm	○
	BA4 Square type plain stand with coarse and fine focus arm, transmitted 10W LED illumination	○

Note: ●Standard Outfit, ○Optional
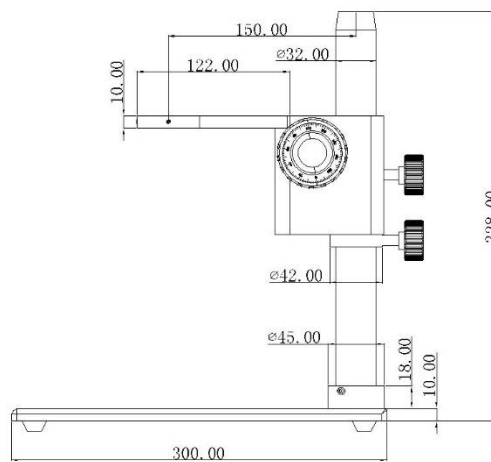
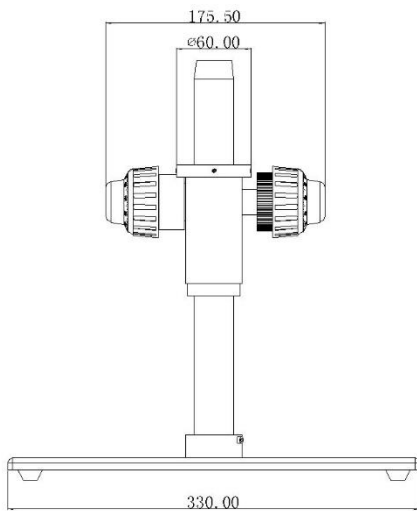## Accessories

CCD C-mount adapter

BMS-302 X-Y stage

BA1 Stand

BA2 Stand

Dimension

175.50
Ø60.00
330.00

150.00
122.00
Ø32.00
10.00
328.00
Ø42.00
Ø45.00
18.00
10.00
300.00

Unit: mm

6. BS-1080CUHD Digital Video Microscope with 4K Camera

BS-1080CUHD

Introduction

BS-1080CUHD Digital Monocular Zoom microscopes adopts apochromatic parallel optical imaging system and provide high resolution and sharp stereoscopic images, 4K HDMI digital camera with measurement function can work without PC. This microscope is designed for the applications of circuit board, electronics, semi-conductor and related industrial inspection and scientific research areas. Modularization product portfolio and excellent optical performance make it a better choice in these areas.

Features

1. 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.
2. Compact design, it is very suitable for the small installation space in modern equipment.
3. Adopt 4K UHD digital camera, can take 4K high resolution uncompressed images and do measurement.
4. Zoom ratio 1:8.3, zoom range 0.6×-5×, standard working distance 88mm, can meet the requirement of conventional inspection.
5. There are a variety of auxiliary lens and C-mount eyepiece adapter for option, make the system's optical magnification range 0.054×-1500×, working distance 2mm-270mm, object field of view 0.004mm-20mm.
6. 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.
7. Adopt modular design, various additional accessories are optional to make the microscope a powerful devoice for your jobs.

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.

Specification

Item	Specification	BS-1080CUHD
Optical System	Infinite apochromatic parallel optical system	●
Zoom Lens	Optical zoom magnification: 0.6-5.0×	●
Zoom ratio	1:8.3	●
Viewing head	Monocular Viewing head with 10×/18mm, 15×/12mm, 20×/11mm eyepiece, Φ23.2mm	○
90° Prism	Used to turn the angle of camera or objective, so as to short the size	○
Mounting Size	Φ40mm	●
4K UHD Digital Camera	HDS800C PLUS 4K UHD digital camera with HDMI output, built-in memory is 4G, images can be saved in USB flash drive(upto 32G). Can capture 4K(3840×2160) pictures and do measurement without PC, control with mouse	●
C-mount Adapter	0.3× C-mount adapter	○
	0.4× C-mount adapter	○
	0.5× C-mount adapter	○
	0.67× C-mount adapter	○
	1× C-mount adapter	●
	1.5× C-mount adapter	○
	2× C-mount adapter	○
	3× C-mount adapter	○
Auxiliary Lens	0.3× /WD: 270mm	○
	0.5× / WD: 160mm	○
	0.6× / WD: 130mm	○
	1× / WD: 88mm	●
	1.5× / WD: 52mm	○
	2× / WD: 39mm	○
Infinite LWD Plan Achromatic Metallurgical Objective Lens	5×, NA: 0.12, WD: 26.1mm	○
	10×, NA: 0.25, WD: 20.2mm	○
	20×, NA: 0.40, WD: 8.8mm	○
	40×, NA: 0.6, WD: 3.98mm	○
	50×, NA: 0.70, WD: 3.68mm	○
	60×, NA: 0.75, WD: 1.22mm	○
	80×, NA: 0.80, WD: 1.25mm	○
	100×, NA: 0.85, WD: 0.4mm	○
Infinite LWD Plan Apochromatic Metallurgical Objective	5×, NA: 0.13, WD: 44.5mm	○
	10×, NA: 0.28, WD: 34mm	○
	20×, NA: 0.29, WD: 31mm	○
	50×, NA: 0.42, WD: 20.1mm	○
Coaxial light Device	Coaxial Device, light input port Φ11mm (does not include light source)	●
	Coaxial point light source: 3W LED, 5500K, brightness adjustable	●
	Polarized Coaxial Device, light input port Φ11mm (does not include light source)	○
Ring Light	BAL-48A LED Ring light, brightness adjustable	○

	Polarized LED Ring light, brightness adjustable	O
Other Accessories	Metallurgical objective adapter (used to connect metallurgical objectives onto the zoom body)	O
	Triple Nosepiece for metallurgical objectives	O
	BSL-3B LED light source with dual goose neck light guide, 6.5W	O
	BMS-302 X-Y moving stage	O
Stand and focus arm	BA1 Pillar type plain stand with coarse focus arm	O
	BA2 Pillar type plain stand with coarse and fine focus arm	O
	BA3 Square type plain stand with coarse and fine focus arm	●
	BA4 Square type plain stand with coarse and fine focus arm, transmitted 10W LED illumination	O

Note: ●Standard Outfit, ○Optional