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-1080 BLHD1
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, 1080P videos and do measurement, control with mouse	●
	BWHC-1080BAF autofocus digital camera with HDMI and WIFI output, can capture 5.0MP pictures, 1080P videos and do measurement, control with mouse	○
	BWHC-1080D digital camera with HDMI and WIFI output, can capture 2.0MP pictures, 1080P videos and do measurement, control with mouse	○
	BWHC-1080DAF autofocus digital camera with HDMI and WIFI output, can capture 2.0MP pictures, 1080P videos and do measurement, control with mouse	○
	BWHC-4K8MPA digital camera with HDMI, GigE and WIFI output, can capture 8.0MP pictures, 4K videos and do measurement, control with mouse	○
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	○
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	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	96×72-	68×51-	53×40-	40×30-	26×20-	18×13-	13×10-	9×6.6-

(mm)	10.6×8	8×6	6.4×4.8	4.8×3.6	3.2×2.4	2×1.6	1.6×1.2	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

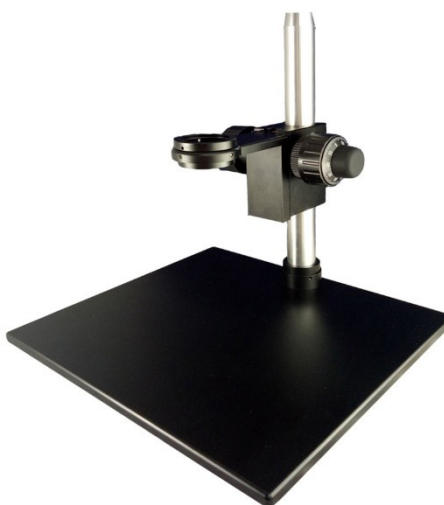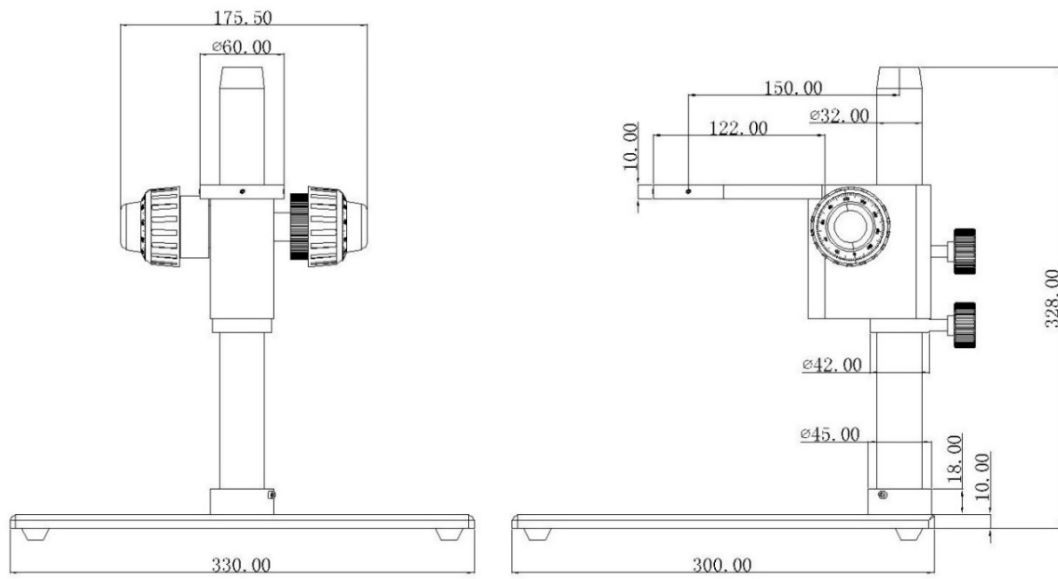LED point light for Coaxial Device

BMS-302 X-Y stage

BA1 Stand

BA2 Stand

Dimension

Unit: mm