

BWHC-1080BAF/DAF Auto Focus WIFI+HDMI CMOS Camera



Introduction

BWHC-1080BAF/DAF is a multiple interfaces (HDMI+WiFi+SD card) CMOS camera with autofocus function and it adopts ultra-high performance Sony CMOS sensor as the image capture device. HDMI+WiFi are used as the data transfer interface to HDMI display or computer.

For HDMI output, The XCamView will be loaded and a camera control panel and toolbar are overlaid on the HDMI screen, in this case, the USB mouse can be used to set the camera. Measure, browse and compare the captured image, playback the video.

In HDMI output, the camera embedded Auto/Manual focus function can obtain the clear image at ease. No hand rotation of the microscope Coarse/Fine knob is needed.

For WiFi output, unplug the mouse and plug in the USB WiFi adapter, connect the computer WiFi to the camera, then the video stream can be transferred to computer with the advanced software ImageView. With ImageView, you can control the camera, process the image as our other USB series camera.

Features

The BWHC-1080BAF/DAF's basic characteristic is as follows:

1. All in 1(HDMI+WiFi) C-mount camera with Sony high sensitivity CMOS sensor;
- 2. Auto/Manual focus with the movement of the sensor;**
3. For HDMI application, with built-in multiple-language XCamView software. The camera characteristic can be controlled by XCamView through the USB mouse. The other basic processing and control can also be realized by the XCamView;
4. 1920 × 1080 (1080P) resolutions to match the current high-definition displayer on the market; Support plug and play application;

5. For HDMI application, 5.0MP or 2.0MP resolution image (BWHC-1080BAF: 2592*1944, BWHC-1080DAF: 1920*1080) can be captured and saved for browsing; For video, 1080P video stream(asf format) can be captured and saved;
6. With the USB WiFi adapter, the BWHC-1080BAF/DAF can be used as WiFi camera, the ImageView advanced image processing software is used to display the video and capture image. support plug and play application;
7. Ultra-Fine Color Engine with perfect color reproduction capability (WiFi);
8. With advanced video & image processing application ImageView, which including professional image processing such as 2D measurement, HDR, image stitching, EDF(Extended Depth of Focus), image segmentation & count, image stacking, color composite and denoising(USB).

Application

BWHC-1080BAF/DAF can meet various applications and can be widely used in industrial inspection, education and research, materials analysis, precision measurement, medical analyses etc.

The possible applications of BWHC-1080BAF/DAF are as follows:

1. Scientific research, education (teaching, demonstration and academic exchanges);
2. Digital laboratory, medical research;
3. Industrial visual (PCB examination, IC quality control);
4. Medical treatment (pathological observation);
5. Food (microbial colony observation and counting);
6. Aerospace, military (high sophisticated weapons).

Specification

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
BWHC-1080BAF	1080P/5M/Sony IMX178(C) 1/1.8"(6.22x4.67)	2.4x2.4	425mv with 1/30s 0.15mv with 1/30s	30/1920*1080(HDMI) 25/1920x1080(WiFi)	1x1	0.03ms~918ms
BWHC-1080DAF	1080P/2M/Sony IMX185(C) 1/1.9"(7.20x4.05)	3.75x3.75	1120mv with 1/30s 0.15mv with 1/30s	60/1920*1080(HDMI) 25/1920x1080(WiFi)	1x1	0.06ms~918ms

C: Color; M: Monochrome;

Interface & Button Functions		
	USB	USB Mouse/USB WiFi Adapter
	HDMI	HDMI Output

	DC12V	12V/1A Power in
	SD	SD Card Slot
	ON/OFF	Power On/off Switch
	LED	Power Indicator
Other Specification for HDMI Output		
UI Operation	With USB Mouse to operate on the embedded XCamView	
Image Capture	JPEG Format with 5.0MP(BWHC-1080BAF) or 2.0M Resolution in SD Card (BWHC-1080DAF)	
Video Record	ASF Format 1080P 30fps in SD Card(8G)	
Camera Control Panel	Including Exposure, Gain, White Balance, Color Adjustment, Sharpness and Denoising Control	
Toolbar	Including Zoom, Mirror, Comparison, Freeze, Cross, Browser Function, Multi-language and XCamView Version Information	
Other Specification for WiFi Output		
UI Operation	ImageView Windows OS, or ToupLite on Linux/OSX/Android Platform	
WiFi Performance	802.11n 150Mbps; RF Power 20dBm(Maximum)	
Maximum Connected Devices	3~6(According to the Environment and Connection Distance)	
White Balance	Auto White Balance	
Color Technique	Ultra-Fine™ Color Engine (WiFi)	
Capture/Control API	Standard SDK for Windows/Linux/Mac(WiFi)	
Recording System	Still Picture or Movie (WiFi)	
Software Environment (for USB2.0 Connection)		
Operating System	Microsoft® Windows® XP / Vista / 7 / 8 / 8.1/10(32 & 64 bit)	
	OSx(Mac OS X)	
	Linux	
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher	
	Memory: 4GB or More	
	USB Port: USB2.0 High-speed Port(As Power Only, not as the USB Data Transfer)	
	Display: 19" or Larger	
CD-ROM		
Operating Environment		
Operating Temperature (in Centigrade)	-10~ 50	
Storage Temperature (in Centigrade)	-20~ 60	
Operating Humidity	30~80%RH	
Storage Humidity	10~60%RH	
Power Supply	DC 12V/1A Adapter	

BWHC-1080BAF/DAF and Microscope



BWHC-1080BAF/DAF and Its Back Panel



Different Views of BWHC-1080BAF/DAF



BWHC-1080BAF/DAF and Microscope

Dimension of BWHC-1080BAF/DAF



Dimension of BWHC-1080BAF/DAF

Packing Information






Packing Information of BWHC-1080BAF/DAF

Standard Packing List		
A	Gift box : L:25.5cm W:17.0cm H:9.0cm (1pcs, 1.43Kg/ box)	
B	BWHC-1080BAF/DAF	
C	Power Adapter: Input: AC 100~240V 50Hz/60Hz, Output: DC 12V 1A American standard: Model: GS12U12-P1I 12W/12V/1A: UL/CUL/BSMI/CB/FCC EMI Standard: EN55022, EN61204-3, EN61000-3-2,-3, FCC Part 152 class B, BSMI CNS14338 EMS Standard: EN61000-4-2,3,4,5,6,8,11,EN61204-3,Class A Light Industry Standard European standard: Model: GS12E12-P1I 12W/12V/1A; TUV(GS)/CB/CE/ROHS EMI Standard: EN55022, EN61204-3, EN61000-3-2,-3, FCC Part 152 class B, BSMI CNS14338 EMS Standard: EN61000-4-2,3,4,5,6,8,11,EN61204-3,Class A Light Industry Standard	
D	HDMI Cable	
E	USB Mouse	
F	Wireless network adapter with USB interface	
G	CD (Driver & utilities software, Ø12cm)	
Optional Accessory		
H	Adjustable lens adapter	C-Mount to Dia.23.2mm Eyepiece Tube (Please choose 1 of them for your microscope)
		C-Mount to Dia.31.75mm Eyepiece Tube (Please choose 1 of them for your telescope)
I	Fixed lens Adapter	C-Mount to Dia.23.2mm Eyepiece Tube (Please choose 1 of them for your microscope)
		C-Mount to Dia.31.75mm Eyepiece Tube (Please choose 1 of them for your telescope)
<p>Note: For H and I optional items, please specify your camera type (C-mount, microscope camera or telescope camera), Our</p>		

	engineer will help you to determine the right microscope or telescope camera adapter for your application;	
J	108015(Dia.23.2mm to 30.0mm Ring)/Adapter rings for 30mm eyepiece tube	
K	108016(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube	
L	Calibration kit	106011/TS-M1(X=0.01mm/100Div.); 106012/TS-M2(X,Y=0.01mm/100Div.); 106013/TS-M7(X=0.01mm/100Div., 0.10mm/100Div.)
M	SD Card(4G or 8G)	

Extension of BWHC-1080BAF/DAF with Microscope or Telescope Adapter

Extension	Picture	
C-mount Camera	 <p>Machine vision; Medical imaging; Semiconductor equipment; Test instruments; Document scanners; 2D barcode readers; Web camera and security video; Microscope imaging;</p>	
Microscope Camera	 <p>(23.2mm Adapter)</p>	
Telescope Camera	 <p>(31.75mm Adapter)</p>	