

## **BHC3-1080P HDMI Digital Camera**



### **Introduction**

BHC3-1080P HDMI Microscope Camera is a 1080P scientific grade digital camera that has ultra superior color reproduction and super fast frame speed. BHC3-1080P can be connected to a LCD monitor or HD TV via HDMI cable and operated independently without connecting to PC. The image/video capture and operate can be controlled by mouse, so no shaking when you take images and videos. It also can be connected to a PC via USB2.0 cable and operate with the software. With fast frame speed and short responding time features, BHC3-1080P can be used in many areas like microscopy imaging, machine vision and similar image processing fields.

### **Feature**

#### **1. Control the camera with a mouse.**

The significant innovation of BHC3-1080P is making the software implant inside the camera. This forward thinking feature liberates users from cumbersome computers and annoying buttons. You can control the camera by only a mouse directly.



#### **2. Record image and video to SD card.**

Record high definition images and videos at 30fps/1080P into the inserted SD card directly.

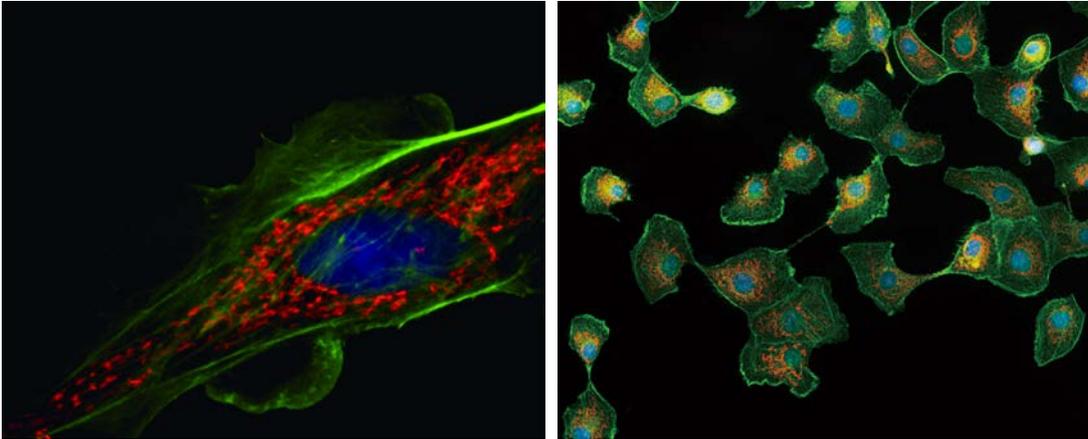
#### **3. High frame rate up to 60fps.**

With 60fps uncompressed data transfer at resolution 1920×1080, BHC3-1080P creates a miracle. It is one of the fastest USB2.0 cameras in the world. The camera support Win XP, Win7/8, 32/64bit, MAC OSX ,

driver free.

**4. HDMI Fluorescent imaging Capability.**

Taking advantage of the ultra high signal-to-noise ratio sensor, BHC3-1080P allows you to set up to 10 seconds exposure time. And the incredibly efficient 3D noise reduction performance delivers finest detailed images for low light fluorescence.



**5. The functions inside camera (Cloud 1.0)**

(1) The less Icons the Better.

The implanted software is very simple to operate. There are only the icons on the software starting screen, one for capture, the other one for setting menu.

(2) Set Exposure Time Capability.

Based on the auto exposure, the first time, HDMI camera also have a full control of the exposure time and gain. It allows to set the exposure time from 1ms to up to 10 seconds and adjusts 20 scales of Gain value.

(3) 3D Noise Reduction.

The extension of the exposure increases the image noise. But the integrated 3D noise reduction function keeps the BHC3-1080P image always clean and sharp. The following comparison images show the amazing 3D noise reduction effect.



Original image



After 3D noise reduction

(4) 1080P Video Recording.

Just click “” to start recording 1080P videos at 30fps. The recorded video files will be saved to the high speed SD card directly. It is also allowed to play back the videos in the SD card directly.

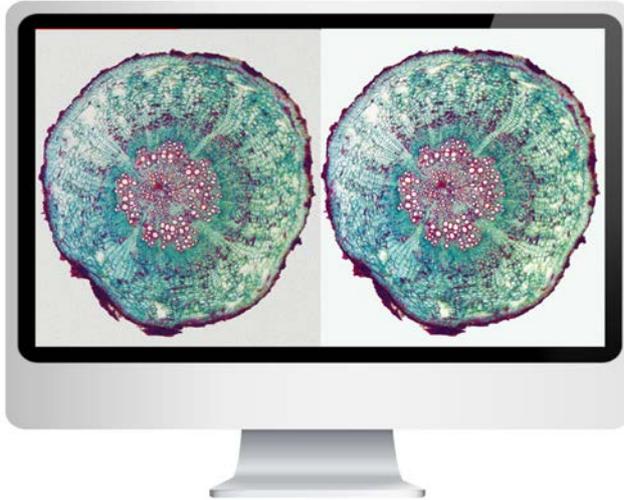
(5) Get more Details with ROI Magnification Function.

A series image operation buttons on the right side of the screen allow to do the image flip, rotation and

ROI. ROI function can help you get more image details with a magnified image.

(6) Image Comparison Function.

The image comparison function is available in the setting menu. You can choose one image, even move the image position or select the ROI area to compare with the live images.



(7) Browse Captured Images.

All the captured images are saved in the SD card. The users can browse all the images in the SD card, zoom in images or delete unnecessary images. You also can review and play back the video files in the SD card directly.



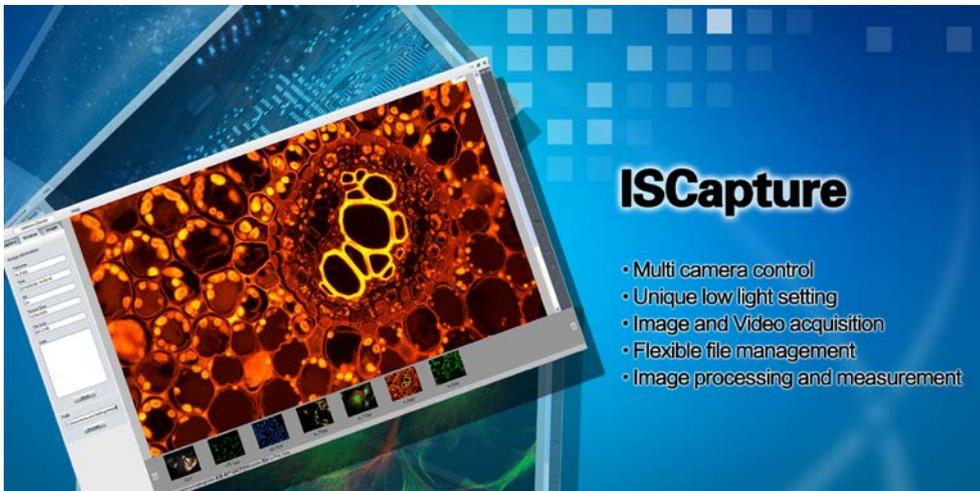
(8) Future.

The design orientation of BHC3-1080P implanted software is to bring the user-friendly and easy to use functions. If you have any good suggestions, please let us know. The online upgrade function is available for BHC3-1080P. Let us create better Cloud software together.

(9) PC software.

Want to have a software with more powerful functions? Connect the BHC3-1080P to the PC via the

USB2.0 port, you can have a USB driver free camera immediately. Meanwhile you can still have the camera work at frame rate 30 fps with resolution 1080P. The application software ISCapture, which integrate the remarkable functions like live and still image measurement, focus stacking and image stitching etc, can fully control the BHC3-1080P. We keep a copy of ISCapture in the SD card come with the BHC3-1080P. You also can visit our website ([www.bestscope.net](http://www.bestscope.net)) to get software download free.



## Application

BHC3-1080P HDMI digital camera can be widely used in video conferencing, remote medical diagnosis, microscopy images, industrial inspection, video projectors, security monitoring field. With the high image quality and easy to operate, it will be your best assistant.

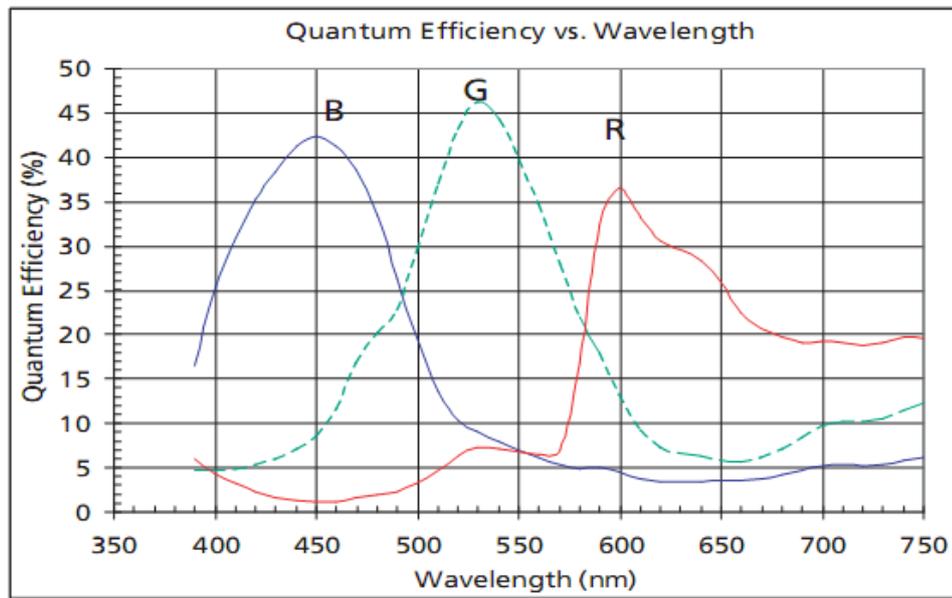
1. Live Cell Imaging
2. Surgical Microscopic Imaging
3. Pathology
4. Cytology
5. Defect Analysis
6. Semiconductor Inspection
7. Metrology
8. Navigation for Processed Imaging
9. Industrial Optical HD Digital Imaging
10. Astronomical Observation

## Specification

Image Sensor	CMOS, Sony IMX236
Sensor Size	1/2.8"
Pixel Size	2.8um × 2.8um
Video Resolution	1920 × 1080
Captured Image Resolution	3264 × 1840 on SD card to LCD monitor, 1920 × 1080 and 3264 × 1840 with software to PC
Frame Rate	1920 × 1080 30fps via USB2.0 1920 × 1080 60fps via HDMI
Data Record	High speed SD Card (8G)
Video Record	1080p 30fps @ SD Card

	1080p 30fps @ PC
Scan Mode	Progressive
Electronic Shutter	Electronic Rolling Shutter
A/D conversion	8 bit
Color Depth	24bit
Sensitivity	510mV
Dynamic Range	68dB
S/N ratio	52dB
Exposure time	0.001 sec ~ 10.0 sec
Exposure	Automatic & Manual
White balance	Automatic
Settings	Gain, Gamma, Saturation, Contrast, scale bar function
Built- in software	Cloud 1.0 version
PC software	ISCapture
Output model 1	USB2.0
Output model 2	HDMI
System Compatible	Windows XP/Vista/Win 7/8(32 and 64-bit ), MAC OSX
Optical port	C- Mount
Power Supply	DC 12V /2A
Operational Temperature	0°C~60°C
Humidity	45%-85%
Storage Temperature	-20°C~70°C
Dimension & Weight	78*70.8*90.7mm, 1kg

### Spectral Response Curve



Sample Image

