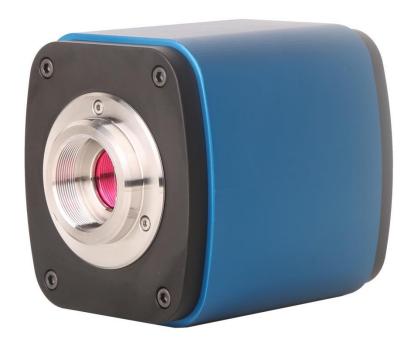## 13.3 XCAM1080PHX's Basic Characteristic

- All in 1(HDMI+USB+SD card) C-mount camera with Sony high sensitivity CMOS sensor;
- Simultaneous HDMI & USB output;
- Built-in mouse control;
- Built-in image capture & video record to SD card;
- Built-in camera control panel, including exposure(manual/auto)/gain, white balance(lockable), color adjustment, sharpness and denoising control;
- Built-in toolbar including zoom, mirror, comparison, freeze, cross, browser functions;
- Built-in image & video browsing, display & play;
- Ultra-Fine color engine with perfect color reproduction capability(USB);
- With advanced video & image processing application ToupView, 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);
- Support standard UVC for Windows/Linux/Mac(USB);
- CNC shell molding design;

13.4 XCAM1080PHX Datasheet

Order Code	Sensor	Size(mm)	Pixel(µm)	FPS/Resolution	Binning	Exposure
XCAM1080PHA XP1080A	Sony IMX236	1/2.8"(5.5x3.4)	2.8x2.8	60@1920X1080P(HDMI) 30@1920X1080(USB)	1x1	0.1ms~999ms

Interface & Button Functions

	USB	USB Camera or USB Mouse
	HDMI	HDMI Output
	DC12V	12V Power in
	SD	SD Card Slot
	ON/OFF	Power On/off Switch

Other Specification for HDMI Output

UI Operation	With USB Mouse
Image Capture	High Speed in SD Card(8G)
Video Record	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

Other Specification for USB Output

White Balance	Auto White Balance
Color Technique	Ultra-Fine^{TM} Color Engine (USB)
Capture/Control API	Standard UVC for Windows/Linux/Mac(USB)
Recording System	Still Picture or Movie (USB)

Software Environment (for USB2.0 Connection)

Operating System	Microsoft® Windows® XP / Vista / 7 / 8 / 8.1(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
	Display:19" or Larger
	CD-ROM

Operating Environment

Operating Temperature(in Centidegree)	-10~ 50
Storage Temperature(in Centidegree)	-20~ 60
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 12V/2A Adaptor

Packing List

	1.XCAM1080PHA Camera 2.USB Mouse 3.HDMI Cable 4.USB2.0 Cable 5.12V AC Power Adapter 6.CD Including ToupView, Manual and SDK 7.SD Card (Optional)

Overall Dimensions

Width x Depth x Height	78 mm (3.07") x 70 mm (2.76") x 92mm (3.62")
Shipping Weight	0.47 kg (1.0lbs)

13.5 HDMI Camera and Microscope

Different Views of HDMI

HDMI C-mount Camera and Its Back Panel

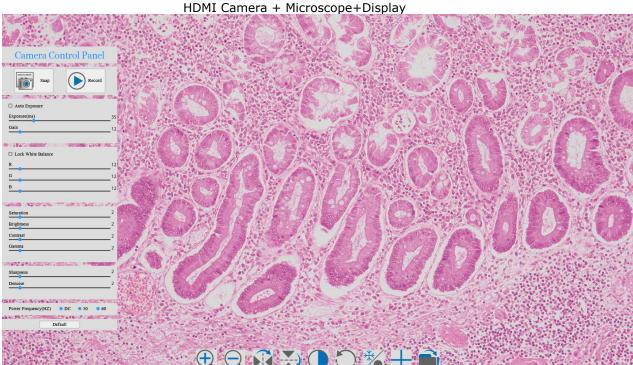
HDMI Camera and Microscope

HDMI Camera + Microscope+Display

HDMI camera UI for Mouse Control

13.6　Possible Application

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