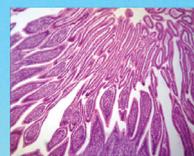# LABOMED, INC.

LC-14 HDMI 1080P Auto Focus CMOS Digital Camera (2.0MP)

LC-14 HDMI 1080P Auto Focus CMOS Digital Camera (2.0MP) 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

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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.

APPLICATION

LC-14 HDMI 1080P Auto Focus CMOS Digital Camera (2.0MP) 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 **LC-14 HDMI 1080P Auto Focus CMOS Digital Camera (2.0MP)** 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).

FEATURES

The **LC-14 HDMI 1080P Auto Focus CMOS Digital Camera (2.0MP)'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;

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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, 2.0MP resolution image (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 **LC-14 HDMI 1080P Auto Focus CMOS Digital Camera (2.0MP)** 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).

SPECIFICATION

Model	LC-14
Sensor & Size(mm)	1080P/2M/Sony IMX185(C)
	1/1.9"(7.20x4.05)
Pixel(μm)	3.75x3.75
G Sensitivity	1120mv with 1/30s
Dark Signal	0.15mv with 1/30s
FPS/Resolution	60/1920*1080 (HDMI)
	25/1920x1080 (WiFi)
Binning	1x1
Exposure	0.06ms∼918ms

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Interface & Button Functions

USB	USB Mouse/USB WIFI Adapter
HDMI	HDMI Out
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 2M Resolution in SD Card
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, Muti-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-FineTM 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

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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 Centidegree)	-10~ 50
Storage Temperature (in Centidegree)	-20~ 60
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 12V/1A Adapter

DIMENSION

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PACKING INFORMATION

Standard Packing List

A   Gift box : L:25.5cm W:17.0cm H:9.0cm (1pcs, 1.43Kg/ box)

B   LC-14 CMOS Camera

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

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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)
I	Fixed lens Adapter	C-Mount to Dia.23.2mm Eyepiece Tube (Please choose 1 of them for your microscope)

Note: For H and I optional items, please specify your camera type (C-mount, microscope camera), Our engineer will help you to determine the right microscope 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)	