

# INFINITY<sup>HD</sup>

1080p60 HD Microscopy Camera

High Definition CMOS Color Camera  
with HDMI Output



## INFINITY<sup>HD</sup>

Lumenera's INFINITY<sup>HD</sup> microscopy camera is a full featured, stand alone, high definition scientific imaging solution offering full 1080p60 preview with superb color reproduction and extremely fast frame rates. Operate the camera by directly connecting to an HDMI monitor without connecting to a PC, or utilize the plug-and-play USB 2.0 connection for image capture. With extremely fast response times, the INFINITY<sup>HD</sup> quickly reacts to lighting changes in any life science, clinical or material science applications.

## Superior Color

Years of experience in the microscopy market have allowed Lumenera to develop specialized algorithms ensuring unsurpassed color reproduction. This results in a sample preview on a monitor that closely matches the view on the microscope eyepiece.

## Frame Rate

The INFINITY<sup>HD</sup> camera provides the required 60 fps needed for true high definition, unlike many competitors professing to be HD but offering considerably lower frame rates. This allows for smooth sample manipulation on the preview without any lag.

## INFINITY<sup>HD</sup> Software

The included INFINITY<sup>HD</sup> software allows for image capture. The software is intuitive and can be set up in minutes. Once the camera is initially installed, the camera can run independently or used via the high-speed USB 2.0 connection.

## Superior Technical Assistance Center (TAC)

As a Lumenera customer you gain access to the TAC group and knowledge base, which provide full support for cameras, software and microscopy applications.

## Features

- 1/3" (16:9) CMOS 2 megapixel sensor
- 1080p60 high definition format 1920 x 1080 at 60 fps
- Direct output to HDMI monitor
- 3 on-camera buttons for power, white balance and capture
- Optional USB 2.0 output to PC
- INFINITY<sup>HD</sup> software compatible with Windows 10, 8, 7, Vista, 32 and 64-bit, for image capture

## Recommended Applications

- Brightfield
- Darkfield
- Live Cell Imaging
- Histology
- Pathology
- Cytology
- Defect Analysis
- Semiconductor Inspection
- Metrology

## Warranty

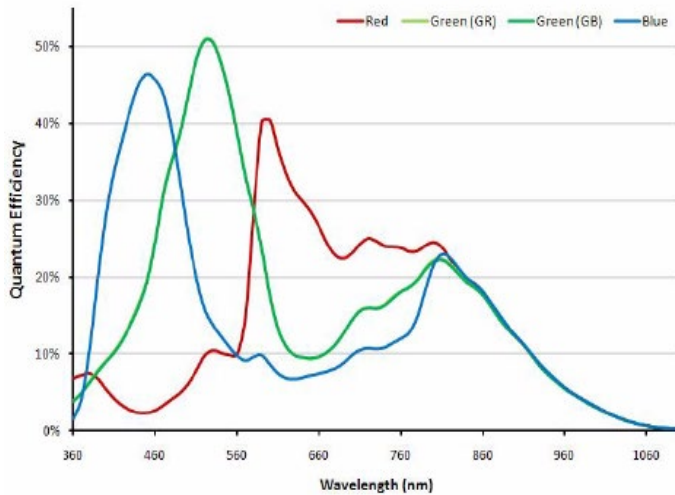
- Four (4) year warranty

## Microscope Coupler

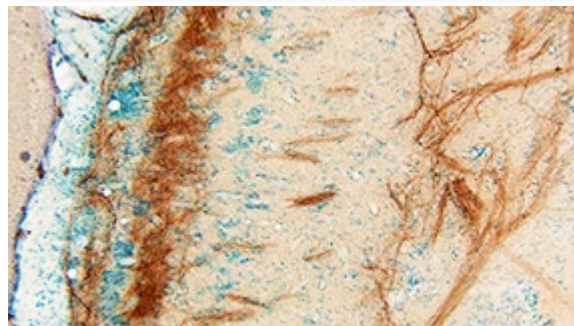
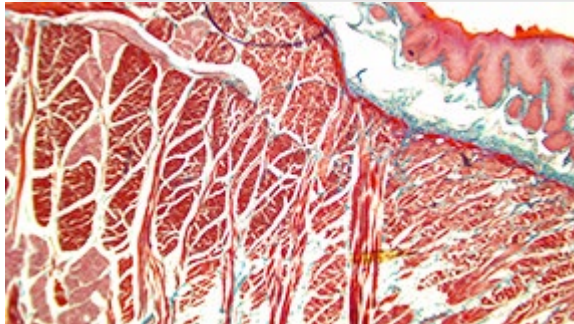
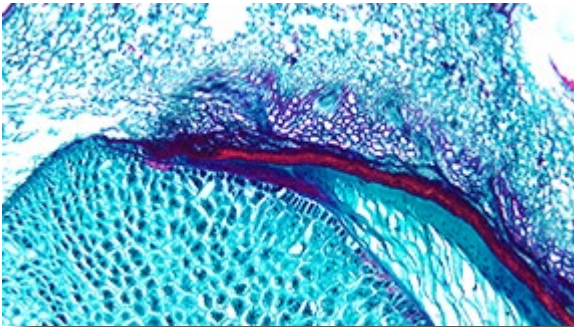
- Requires 0.33 x, 0.4 x or 0.5 x coupler



Sensor Quantum Efficiency



Sample Images



Sensor Specifications	
Image Sensor	CMOS, color, progressive scan
Optical Format	1/3"
Imager Size	Diagonal 5.86 mm
Pixel Size	2.7 x 2.7 $\mu$ m
Resolution	1920 x 1080 pixels
Region of Interest Control	Not applicable to HD
Camera Specifications	
Frame Rate	1080p60 (60 fps at full resolution)
Bit Depth	8-bit
Binning Modes	Not applicable to HD
Exposure Control	Fully automatic control
Exposure Range	Not applicable to HD
Gain Control	Fully automatic control
Gain Range	Not applicable to HD
White Balance	One shot automatic control
Camera Characteristics	
Sensitivity	11,500 e-/lux/sec
Dynamic Range	65 dB
Full Well Capacity	15,500 e-
Quantum Efficiency	51 % (green peak)
Read Noise	8.7 e-
Dark Current Noise	<60 e-/pixel/s at 60 °C
Mechanical Specifications	
Data Interface	HDMI
Control Interface	USB 2.0
Lens Mount	Adjustable C-mount standard
Dimensions	97.8 x 69.8 x 50.8 mm 3.85 x 2.75 x 2.00 inch
Mass	330 g
Operating Temperature	0 to 50 °C
Storage Temperature	-30 to 70 °C
Operating Humidity	5 to 95%, non-condensing
Shock / Vibration	50 g shock, 5 g (2 to 200 Hz) vibration
Onboard Memory	Camera has onboard non-volatile memory storage
Control Software	
Operating Systems	Windows 10, 8, 7, Vista, 32 and 64-bit
Power and Emissions	
Power Consumption	~2.5 W
Power Requirement	External 5 V DC, 500 mA
Emissions Compliances	FCC Class B, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	Four (4) year
System Requirements	
Recommended PC Specs:	<ul style="list-style-type: none"> <li>• Pentium 4, 1.3 GHz or higher</li> <li>• 512 MB RAM</li> <li>• 500 MB hard drive free space or more</li> <li>• USB 2.0 Port</li> <li>• Windows 10, 8, 7, Vista, 32 and 64-bit</li> </ul>
Included In The Box	
INFINITYHD	2 MP Digital Camera for USB 2.0
LuINFHDSW-DVD	DVD with INFINITYHD user application software and documentation
La2020HD	2 m HDMI cable
La2030M	3 m USB 2.0 A - mini B cable
La050300	5 V DC, 2.5 A, 12.5 W power supply
Ordering Information	
INFINITYHD	2 MP HD Color Camera

