INFINITY *HD*

1080p60 HD Microscopy Camera

High Definition CMOS Color Camera
Direct to Monitor

INFINITY *HD*

Lumenera's INFINITY*HD* 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 monitor without connecting to a PC, or utilize the plug-and-play USB 2.0 for white balance and image capture. With extremely fast response times, the INFINITY*HD* quickly reacts to lighting changes in any life science, clinical or material application. Video output over HDMI connector to either a DVI or HDMI monitor.

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*HD* 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 *HD* Software

The included INFINITY*HD* software allows for camera white balance as well as 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
- Direct output to monitor
- Optional USB 2.0 output to PC
- INFINITY*HD* software compatible with Windows XP, Vista, Windows 7, 32 and 64-bit, for white balance and image capture

Recommended Applications

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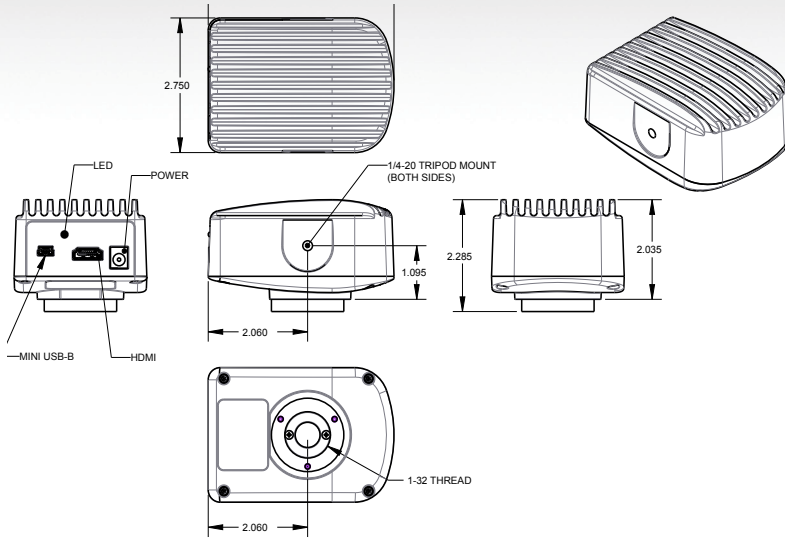- Metrology

Warranty

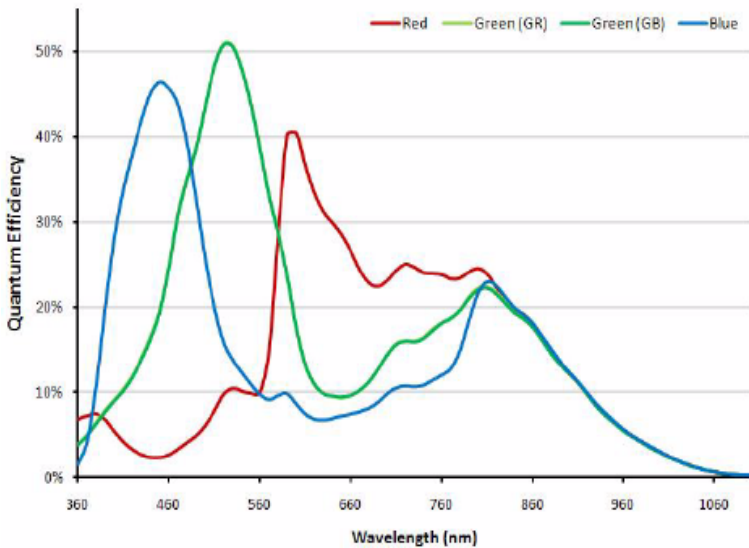- One (1) year parts and labor

Microscope Coupler

- Requires 0.33 x, 0.4 x or 0.5 x coupler

Mechanical Drawing

Quantum Efficiency

Sensor Specifications	
Image Sensor	CMOS, color, progressive scan
Optical Format	1/3"
Active Area	5.2 x 2.7 mm
Pixel Size	2.7 x 2.7 µm
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 (with INFINITY HD application)
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 ºC
Mechanical Specifications	
Video Output Port	HDMI connector
Control Interface	USB 2.0
Lens Mount	Adjustable C-mount standard
Dimensions	57.15 x 97.79 x 39.62 mm / 2.25 x 3.85 x 1.56 inch
Mass	330 g
Operating Temperature	0 to 50 ºC
Storage Temperature	-30 to 70 ºC
Operating Humidity	5 to 95%, non-condensing
Shock / Vibration	50 g shock, 5 g (2 to 200 Hz) vibration
Control Software	
Operating Systems	Windows XP, Vista, 7, 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	One (1) year
System Requirements	
Recommended PC Specs:	• Pentium 4, 1.3 GHz or higher • 512 MB RAM • 500 MB hard drive free space or more • USB 2.0 Port • Windows 7
Minimum PC Specs:	• 600 MHz Processor • 256 MB of SDRAM • 200 MB hard drive free space • USB 2.0 Port • Windows XP
Included In The Box	
INFINITY HD	2 MP Digital Camera for USB 2.0
LuINFHDSW-DVD	DVD with INFINITY HD user application software and documentation
La2020HD	2 m HDMI cable
La2030M	3 m USB 2.0 A - mini B cable
La20515	5 V DC, 2.5 A, 12.5 W Power Supply
Ordering Information	
INFINITY HD	2 MP HD Color Camera