# INFINITY HD

1080p60 HD Microscopy Camera

High Definition CMOS Color Camera with HDMI Output



# **INFINITY***HD*

Lumenera's INFINITYHD 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 plugand-play USB 2.0 for image capture. With extremely fast response times, the INFINITYHD quickly reacts to lighting changes in any life science, clinical or material application.

# **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 INFINITYHD 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 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 HDMI monitor
- 3 on-camera buttons for power, white balance and capture
- Optional USB 2.0 output to PC
- INFINITY*HD* software compatible with Windows XP, Vista, Windows 7, 32 and 64-bit, for 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



7 CAPELLA COURT, OTTAWA, ON, CANADA K2E 8A7 | PHOENIX, ARIZONA, USA | ATLANTA, GEORGIA, USA | TEL (613) 736-4077 | FAX (613) 736-4071 | WWW.LUMENERA.COM | INFO@LUMENERA.COM

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-MINI USB-B

-HDMI

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 Bate	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	11,500 e-/lux/sec
Sensitivity Dynamic Range	, , , ,
Full Well Capacity	65 dB 15,500 e-
Quantum Efficiency	
Read Noise	51 % (green peak) 8.7 e-
Dark Current Noise	
Mechanical Specifications	
Data Interface	HDMI
Control Interface	USB 2.0
Lens Mount	Adjustable C-mount standard
	57.15 x 97.79 x 39.62 mm
Dimensions	2.25 x 3.85 x 1.56 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
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	RoHS, WEEE Compliant One (1) year
	One (1) year
Warranty System Requirements	One (1) year • Pentium 4, 1.3 GHz or higher
Warranty	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more
Warranty System Requirements Recommended PC	One (1) year • Pentium 4, 1.3 GHz or higher • 512 MB RAM
Warranty System Requirements Recommended PC	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor
Warranty System Requirements Recommended PC Specs:	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM
Warranty System Requirements Recommended PC	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM 200 MB hard drive free space USB 2.0 Port
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Warranty System Requirements Recommended PC Specs: Minimum PC Specs:	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM 200 MB hard drive free space USB 2.0 Port Windows XP 2 MP Digital Camera for USB 2.0
Warranty System Requirements Recommended PC Specs: Minimum PC Specs: Included In The Box	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM 200 MB hard drive free space USB 2.0 Port Windows XP
Warranty System Requirements Recommended PC Specs: Minimum PC Specs: Included In The Box INFINITY <i>HD</i>	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM 200 MB hard drive free space USB 2.0 Port Windows XP 2 MP Digital Camera for USB 2.0 DVD with INFINITY <i>HD</i> user application software and
Warranty         System Requirements         Recommended PC         Specs:         Minimum PC Specs:         Included In The Box         INFINITYHD         LuINFHDSW-DVD	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM 200 MB hard drive free space USB 2.0 Port USB 2.0 Port 2 MP Digital Camera for USB 2.0 DVD with INFINITY <i>HD</i> user application software and documentation
Warranty         System Requirements         Recommended PC         Specs:         Minimum PC Specs:         Included In The Box         INFINITYHD         LuINFHDSW-DVD         La2020HD	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM 200 MB hard drive free space USB 2.0 Port USB 2.0 Port 2 MP Digital Camera for USB 2.0 DVD with INFINITY <i>HD</i> user application software and documentation 2 m HDMI cable
Warranty         System Requirements         Recommended PC         Specs:         Minimum PC Specs:         Included In The Box         INFINITYHD         LuINFHDSW-DVD         La2020HD         La2030M	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM 200 MB hard drive free space USB 2.0 Port USB 2.0 Port 2 MP Digital Camera for USB 2.0 DVD with INFINITY <i>HD</i> user application software and documentation 2 m HDMI cable 3 m USB 2.0 A - mini B cable
Warranty         System Requirements         Recommended PC         Specs:         Minimum PC Specs:         Included In The Box         INFINITYHD         LuINFHDSW-DVD         La2020HD         La2030M         La20515	One (1) year Pentium 4, 1.3 GHz or higher 512 MB RAM 500 MB hard drive free space or more USB 2.0 Port Windows 7 600 MHz Processor 256 MB of SDRAM 200 MB hard drive free space USB 2.0 Port USB 2.0 Port Windows XP 2 MP Digital Camera for USB 2.0 DVD with INFINITY <i>HD</i> user application software and documentation 2 m HDMI cable 3 m USB 2.0 A - mini B cable



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