# INFINITY 2-3

3.3 Megapixel CCD USB 2.0 Camera

High Resolution CCD Color or Monochrome

Microscopy Camera for Qualitative Image Archiving



#### **INFINITY**2-3

For applications demanding a higher resolution, the INFINITY2-3 allows users to view fine detail in their samples without the pixilation commonly found in lower resolution cameras. A 2080 x 1536 resolution positions this camera as an excellent solution for previewing images on high definition monitors or overhead projectors, as well as the production of larger printed images for posters and charts.

# **Superior Sensitivity and Color Reproduction**

Years of experience in the microscopy market have allowed Lumenera to develop specialized algorithms ensuring excellent color reproduction. Additionally, INFINITY software allows the adjustment of all live preview color facets, enabling users to apply their own personal preferences to each image. For lower light applications the Sony CCD sensor has an extremely high dynamic range, resulting in excellent camera sensitivity.

# **Full Image Analysis Software Included**

INFINITY CAPTURE, an intuitive image capture program, and INFINITY ANALYZE, a full image analysis package offering; camera control, measurement, annotations, tiling and post capture enhancement, are both included. Camera and software combined to create a complete microscopy imaging solution for your application.

#### **USB 2.0 Plug-and-Play Interface**

Sharing and installation of one or more cameras on a single computer is quick and simple through a high-speed USB 2.0 interface.

#### **Third-Party Software Integration**

INFINITY cameras are integrated into a variety of third-party software packages through direct drivers or with TWAIN/DirectX support.

#### **Mac Camera Software**

A Mac camera driver and ImageJ plug-in are available for the INFINITY2-3. Please refer to the Lumenera webpage www.lumenera.com for up-to-date details.

#### **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.

# Lumenera

#### **Features**

- Low noise progressive scan 1/1.8" 3.3 megapixel Sony ICX262 CCD sensor
- Full color sub-windowing allows for rapid focus and scanning of samples; up to 30 fps at 640x480 resolution
- 8 or 12-bit pixel data modes
- Software compatible with Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit operating systems
- Includes TWAIN and DirectX/

#### **Recommended Applications**

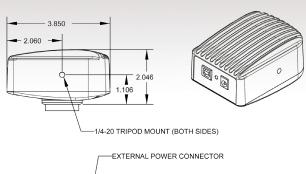
- Brightfield
- Darkfield
- Live Cell Imaging
- Histology
- Pathology
- Cytology
- Defect Analysis
- Semiconductor Inspection
- Metrology
- Gel Documentation
- Moderate Light Fluorescence
- Quantitative Analysis

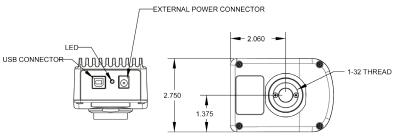
# Warranty

• Four (4) year warranty

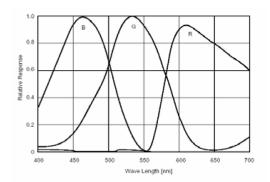
# Microscope Coupler

• Requires 0.5x c-mount coupler





# Color Quantum Efficiency Curves



Sensor Specifications Image Sensor Sony ICX262, 3.3 megapixel, CCD, color, progressive scan Optical Format 1/1.8° Diagonal 8.93mm Pixel Size 3.45 x 3.45 µm Resolution Resolution Region of Interest Control Camera Specifications Frame Rate 5 fps (2080 x 1536) Bit Depth Binning 2 x 2, 3 x 3, 4 x 4 Exposure Control Exposure Control Manual and automatic control Exposure Range 118 µs to 2.97 s (video), 50 µs - 10 s (snapshot) Gain Range 110 10 x White Balance Manual and automatic control Exposure Control Manual and automatic control Exposure Range 118 µs to 2.97 s (video), 50 µs - 10 s (snapshot) Gain Range 1 to 10 x White Balance Manual and automatic control  Camera Characteristics Dynamic Range 58 db Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color) Read Noise 13 e- Dark Current Noise Mechanical Specifications Data Interface USB 2.0 Lens Mount Adjustable C-mount standard Dimensions 3,85 x 2.00 x 2.75 inch Mass 300 g Operating Temperature 0 to 50 °C Storage temperature - 30 to 70 °C Operating Humidity 5 to 95 % non-condensing Camera Software Operating Systems Power and Emissions Power Add Finishons Power Requirement USB bus power (optional 5 v DC, 500 mA) Emissions Compliances Recommended PC Spess: - 10,000 Miss N, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit Power and Emissions Power and Emissions Power and Emissions Power Requirements - 2,5 W Power Requirements - 10,000 Miss N, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit Power and Emissions Power and Emissions Power Add Trins Sions - 2,5 W Power Requirements - 10,000 Miss N, 7, XP, Wac OS X 10.7, 10,000 Miss N, 7, XP, Wac OS X 10.7, 10,000 Miss N, 7, XP, Wac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7, XP, Mac OS X 10.7, 10,000 Miss N, 7,		
Optical Format Active Area Diagonal 8.93mm Pixel Size Active Area Diagonal 8.93mm Pixel Size As 3.45 x 3.45 µm Resolution Any multiple of 16 x 16 pixels Region of Interest Control Carmera Specifications Frame Rate As 6 fps (2080 x 1536) Bit Depth Bit Depth Bit Depth Binning As 2 x 2, 3 x 3, 4 x 4 Exposure Control Manual and automatic control Exposure Range Any multiple of 16 x 16 pixels  Exposure Control Manual and automatic control Exposure Range Any Manual and automatic control Exposure Range Any Manual and automatic control Exposure Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control  Camera Characteristics Dynamic Range Any Manual and automatic control	Sensor Specifications	
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Pixel Size 3.45 x 3.45 µm Resolution 2080 x 1536 pixels Region of Interest Control 2080 x 1536 pixels Region of Interest Control 2080 x 1536)  Bit Depth 8 or 12-bit 8 linning 2 x 2, 3 x 3, 4 x 4  Exposure Control Manual and automatic control Exposure Range 118 µs to 2.97 s (video), 50 µs - 10 s (snapshot) Gain Control Manual and automatic control Gain Range 1 to 10 x White Balance Manual and automatic control Gain Range 1 to 10 x White Balance Manual and automatic control Gain Range 58 db Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color) Read Noise 13 e- Dark Current Noise 13 e- Dark Current Noise 13 e- Dark Current Noise 10 s s x 2.00 x 2.75 inch Mass 100 poperating Temperature 10 to 50 °C Storage temperature 10 to 50 °C Storage temperature 10 to 50 °C Storage temperature 20 to 59 % non-condensing Camera Software Operating Systems 64-bit 90wer (optional 5 V DC, 500 mA) Power and Emissions Power Consumption -2.5 W Power Requirement USB bus power (optional 5 V DC, 500 mA) Emissions Compliances FCC Class B, CE Certified Hazardous Materials RoHs, WEEE Compliant Warranty Four (4) year System Requirements  Pentitum 4, 1, 3 GHz or higher 512 MB RAM or more 60 MB hard of use B power (and Special Camera Software 10 year 10 y	Optical Format	1/1.8"
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Region of Interest Control Camera Specifications Frame Rate  5 fps (2080 x 1536)  Bit Depth  8 or 12-bit Binning 2 x 2, 3 x 3, 4 x 4  Exposure Control Manual and automatic control Exposure Range 118 µs to 2.97 s (video), 50 µs - 10 s (snapshot) Gain Control Gain Control Manual and automatic control Gain Range 110 10 x White Balance Manual and automatic control  Camera Characteristics Dynamic Range 58 db Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color) Read Noise 13 e- Dark Current Noise 13 e- Dark Current Noise 13 e- Dark Current Noise 14 e-/s at 22 °C Mechanical Specifications Data Interface USB 2.0 Lens Mount Adjustable C-mount standard Dimensions 3,85 x 2.00 x 2.75 inch Mass 300 g Operating Temperature 0 to 50 °C Storage temperature 3,30 to 70 °C Operating Humidity 5 to 95 % non-condensing Camera Software Operating Systems Power and Emissions Power Requirement USB bus power (optional 5 V DC, 500 mA) Emissions Compiliances FCC Class B, CE Certified Hazardous Materials RoHS, WEEE Compliant Warranty Four (4) year  System Requirements  • Pentium 4, 1.3 GHz or higher • 512 MB RAM or more • 00 MB hard drive free space or more • 10 MB hard drive free space or more • 10 USB 2.0 or USB 3.0 Port • Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including InFINITY ANALYZE), Twain driver and documentation  Ordering Options  INFINITY2-3C Ordering Options  INFINITY2-3C Software Developer's Kit (Web Download)	Pixel Size	3.45 x 3.45 µm
Camera Specifications Frame Rate	Resolution	2080 x1536 pixels
Frame Rate 5 fps (2080 x 1536)  Bit Depth 8 or 12-bit 8 inning 2 x 2, 3 x 3, 4 x 4  Exposure Control Manual and automatic control Exposure Range 118 µs to 2.97 s (video), 50 µs - 10 s (snapshot)  Gain Control Manual and automatic control  Gain Range 1 to 10 x  White Balance Manual and automatic control  Camera Characteristics  Dynamic Range 58 db  Pixel Well Depth 10,630 e-  Quantum Efficiency 43% (@ 535 nm, color)  Read Noise 13 e-  Dark Current Noise 41 e-/s at 22 °C  Mechanical Specifications  Data Interface USB 2.0  Lens Mount Adjustable C-mount standard  Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass 300 g  Operating Temperature 3.00 to 70 °C  Operating Humicity 5 to 95 % non-condensing  Camera Software  Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption -2.5 W  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 12 Mar Andrews 12 Merchant 12 M	Region of Interest Control	Any multiple of 16 x 16 pixels
Bit Depth 8 or 12-bit Binning 2 x 2, 3 x 3, 4 x 4  Exposure Control Manual and automatic control  Exposure Range 118 µs to 2.97 s (video), 50 µs - 10 s (snapshot)  Gain Control Manual and automatic control  Gain Range 1 to 10 x  White Balance Manual and automatic control  Camera Characteristics  Dynamic Range 58 db  Pixel Well Depth 10,630 e-  Quantum Efficiency 43% (@ 535 nm, color)  Read Noise 13 e-  Dark Current Noise 13 e-  Dark Current Noise 13 e-  Dark Current Noise 15 e-/s at 22 °C  Mechanical Specifications  Data Interface USB 2.0  Lens Mount Adjustable C-mount standard  Dimensions 97.8 x 50.8 x 69.9 mm  3.85 x 2.00 x 2.75 inch  Mass 300 g  Operating Temperature 0 to 50 °C  Storage temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher  512 MB RAM or more  8 Commended PC Specs:  1 Pentium 4, 1.3 GHz or higher  512 MB RAM or more  8 USB 2.0 or USB 3.0 Port  9 Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  UNSB 2.0 or USB 3.0 Port  1 Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  UASDKSW Software Developer's Kit (Web Download)	Camera Specifications	
Binning 2 x 2, 3 x 3, 4 x 4  Exposure Control Manual and automatic control Exposure Range 118 µs to 2.97 s (video), 50 µs - 10 s (snapshot) Gain Control Manual and automatic control Gain Range 1 to 10 x  White Balance Manual and automatic control  Camera Characteristics Dynamic Range 58 db Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color) Read Noise 13 e- Dark Current Noise <1 e-/s at 22 °C Mechanical Specifications Data Interface USB 2.0 Lens Mount Adjustable C-mount standard Dimensions 3.85 x 2.00 x 2.75 inch Mass 300 g Operating Temperature 0 to 50 °C Storage temperature -30 to 70 °C Operating Humidity 5 to 95 % non-condensing Camera Software Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit Power and Emissions Power Consumption -2.5 W Power Requirement USB bus power (optional 5 V DC, 500 mA) Emissions Compliances FCC Class B, CE Certified Hazardous Materials RoHS, WEEE Compliant Warranty Four (4) year System Requirements  Pentium 4, 1.3 GHz or higher -512 MB RAM or more -512 MB RAM or mo	Frame Rate	5 fps (2080 x 1536)
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Exposure Range 118 µs to 2.97 s (video), 50 µs - 10 s (snapshot) Gain Control Manual and automatic control Gain Range 1 to 10 x White Balance Manual and automatic control Camera Characteristics Dynamic Range 58 db Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color) Read Noise 13 e- Dark Current Noise Wechanical Specifications Data Interface USB 2.0 Lens Mount Adjustable C-mount standard Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch Mass 300 g Operating Temperature 0 to 50 °C Storage temperature -30 to 70 °C Operating Humidity 5 to 95 % non-condensing Camera Software Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit Power and Emissions Power Requirement USB bus power (optional 5 v DC, 500 mA) Emissions Compliances FCC Class B, CE Certified Hazardous Materials RoHS, WEEE Compliant Warranty Four (4) year System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 0 USB 2.0 Cable Windows 8, 7, XP, Wac OS X 10.7 Included In The Box INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable LUNFSW-DVD (INFINITY user application software (including InFINITY ANALYZE), Twain driver and cournering Ordering Options  LuAFM (INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuAFM (INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)	Binning	2 x 2, 3 x 3, 4 x 4
Gain Control Gain Range  1 to 10 x  White Balance Manual and automatic control  Camera Characteristics  Dynamic Range 58 db Prixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color)  Read Noise 13 e- Dark Current Noise Mechanical Specifications  Data Interface USB 2.0 Lens Mount Adjustable C-mount standard  Dimensions 3.85 x 2.00 x 2.75 inch  Mass 300 g  Operating Temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems  Power Consumption Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances Heazardous Materials RoHS, WEEE Compliant Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher - 512 MB RAM or more - 60 MB hard drive free space or more - USB 2.0 or USB 3.0 Port - Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY user application software (including INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  INFINITY2-3C 3.3 MP CCD Color Camera  INFINITY2-3C 3.3 MP CCD Color Camera  INFINITY2-3C INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuAFM  INSINEM Software Developer's Kit (Web Download)	Exposure Control	Manual and automatic control
Gain Range 1 to 10 x White Balance Manual and automatic control Camera Characteristics Dynamic Range 58 db Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color) Read Noise 13 e- Dark Current Noise 13 e- Dark Current Noise 21 e-/s at 22 °C Mechanical Specifications Data Interface USB 2.0 Lens Mount Adjustable C-mount standard Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch Mass 300 g Operating Temperature 0 to 50 °C Storage temperature -30 to 70 °C Operating Humidity 5 to 95 % non-condensing Camera Software Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit Power Consumption -2.5 W Power Requirement USB bus power (optional 5 V DC, 500 mA) Emissions Compliances FCC Class B, CE Certified Hazardous Materials RoHS, WEEE Compliant Warranty Four (4) year System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more 10 USB 2.0 or USB 3.0 Port 10 Windows 8, 7, XP, Mac OS X 10.7 Included In The Box INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation Ordering Information INFINITY2-3C 3.3 MP CCD Color Camera Ordering Options  LuAFM (Multi-Focus Composition and Spherical Aberration Correction Features) LuSDKSW Software Developer's Kit (Web Download)	Exposure Range	118 μs to 2.97 s (video), 50 μs - 10 s (snapshot)
White Balance Manual and automatic control  Camera Characteristics  Dynamic Range 58 db  Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color)  Read Noise 13 e- Dark Current Noise 41 e-/s at 22 °C  Mechanical Specifications  Data Interface USB 2.0  Lens Mount Adjustable C-mount standard  Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass 300 g  Operating Temperature 0 to 50 °C  Storage temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption -2.5 W  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  LuAFM (InfiNITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuASDKSW Software Developer's Kit (Web Download)	Gain Control	Manual and automatic control
Camera Characteristics  Dynamic Range 58 db  Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color)  Read Noise 13 e- Dark Current Noise 13 e- Dark Current Noise V1 e-/s at 22 °C  Mechanical Specifications Data Interface USB 2.0  Lens Mount Adjustable C-mount standard  Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass 300 g  Operating Temperature 300 to 50 °C  Storage temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption ~2.5 W  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 0 USB 2.0 or USB 3.0 Port 0 USB 2.0 USB 2.	Gain Range	1 to 10 x
Dynamic Range 58 db  Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color)  Read Noise 13 e- Dark Current Noise < 1 e-/s at 22 °C  Mechanical Specifications Data Interface USB 2.0  Lens Mount Adjustable C-mount standard  Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass 300 g  Operating Temperature 0 to 50 °C  Storage temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems 64-bit  Power and Emissions  Power Consumption ~2.5 W  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 0 USB 2.0 or USB 3.0 Port 0 USB 2.0 Cable 0 UVD with INFINITY user application software (including INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  LuAFM (INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW Software Developer's Kit (Web Download)	White Balance	Manual and automatic control
Pixel Well Depth 10,630 e- Quantum Efficiency 43% (@ 535 nm, color) Read Noise 13 e- Dark Current Noise <1 e-/s at 22 °C Mechanical Specifications Data Interface USB 2.0 Lens Mount Adjustable C-mount standard Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch Mass 300 g Operating Temperature 0 to 50 °C Storage temperature -30 to 70 °C Operating Humidity 5 to 95 % non-condensing Camera Software Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit Power and Emissions Power Consumption -2.5 W Power Requirement USB bus power (optional 5 V DC, 500 mA) Emissions Compliances FCC Class B, CE Certified Hazardous Materials RoHS, WEEE Compliant Warranty Four (4) year System Requirements  Pentium 4, 1.3 GHz or higher -512 MB RAM or more USB 2.0 or USB 3.0 Port -60 MB hard drive free space or more USB 2.0 or USB 3.0 Port -60 MB hard drive free space or more (including INFINITY 2-3C 3.3 MP digital camera + 3m USB 2.0 Cable UNFINITY2-3C 3.3 MP CCD Color Camera Ordering Information INFINITY2-3C 3.3 MP CCD Color Camera Ordering Options  UNSDKSW Software Developer's Kit (Web Download)	Camera Characteristics	
Quantum Efficiency 43% (@ 535 nm, color)  Read Noise 13 e- Dark Current Noise <1 e-/s at 22 °C  Mechanical Specifications  Data Interface USB 2.0  Lens Mount Adjustable C-mount standard  Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass 300 g  Operating Temperature 0 to 50 °C  Storage temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption -2.5 W  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher -512 MB RAM or more -60 MB hard drive free space or more	Dynamic Range	58 db
Read Noise 13 e- Dark Current Noise <1 e-/s at 22 °C  Mechanical Specifications  Data Interface USB 2.0  Lens Mount Adjustable C-mount standard  Dimensions 97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass 300 g  Operating Temperature 0 to 50 °C  Storage temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption -2.5 W  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher • 512 MB RAM or more • 60 MB hard drive free space or more • USB 2.0 or USB 3.0 Port • Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW Software Developer's Kit (Web Download)	Pixel Well Depth	10,630 e-
Dark Current Noise	Quantum Efficiency	43% (@ 535 nm, color)
Mechanical Specifications       USB 2.0         Lens Mount       Adjustable C-mount standard         Dimensions       97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch         Mass       300 g         Operating Temperature       0 to 50 °C         Storage temperature       -30 to 70 °C         Operating Humidity       5 to 95 % non-condensing         Camera Software       Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit         Power and Emissions       Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit         Power Requirement       USB bus power (optional 5 V DC, 500 mA)         Emissions Compliances       FCC Class B, CE Certified         Hazardous Materials       RoHS, WEEE Compliant         Warranty       Four (4) year         System Requirements	Read Noise	13 e-
Data Interface  Lens Mount  Adjustable C-mount standard  Dimensions  97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass  300 g  Operating Temperature  0 to 50 °C  Storage temperature  Operating Systems  Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption  Power Requirement  USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances  FCC Class B, CE Certified  Hazardous Materials  RoHS, WEEE Compliant  Warranty  Four (4) year  System Requirements  Penetium 4, 1.3 GHz or higher 512 MB RAM or more 0 M	Dark Current Noise	<1 e-/s at 22 °C
Lens Mount  Adjustable C-mount standard  97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass  300 g  Operating Temperature 0 to 50 °C  Storage temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems  Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption -2.5 W  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 0 USB 2.0 or USB 3.0 Port 0 Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	Mechanical Specifications	
Dimensions  97.8 x 50.8 x 69.9 mm 3.85 x 2.00 x 2.75 inch  Mass  300 g  Operating Temperature  0 to 50 °C  Storage temperature  -30 to 70 °C  Operating Humidity  5 to 95 % non-condensing  Camera Software  Operating Systems  Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption  Power Requirement  USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances  FCC Class B, CE Certified  Hazardous Materials  RoHS, WEEE Compliant  Warranty  System Requirements  Pentium 4, 1.3 GHz or higher  512 MB RAM or more  60 MB hard drive free space or more  1058 2.0 or USB 3.0 Port  Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C  3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C  3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	Data Interface	USB 2.0
Mass 300 g  Operating Temperature 0 to 50 °C  Storage temperature -30 to 70 °C  Operating Humidity 5 to 95 % non-condensing  Camera Software  Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption -2.5 W  Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant  Warranty Four (4) year  System Requirements  • Pentium 4, 1.3 GHz or higher • 512 MB RAM or more • 60 MB hard drive free space or more • USB 2.0 or USB 3.0 Port • Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY 4NALLYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  INFINITY2-AVALLYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW Software Developer's Kit (Web Download)	Lens Mount	Adjustable C-mount standard
Operating Temperature  O to 50 °C  Storage temperature  -30 to 70 °C  Operating Humidity  5 to 95 % non-condensing  Camera Software  Operating Systems  Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption  -2.5 W  Power Requirement  USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances  FCC Class B, CE Certified  Hazardous Materials  RoHS, WEEE Compliant  Warranty  Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher  512 MB RAM or more  60 MB hard drive free space or more  USB 2.0 or USB 3.0 Port  Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C  3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C  3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	Dimensions	
Storage temperature Operating Humidity 5 to 95 % non-condensing  Camera Software Operating Systems Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit Power and Emissions Power Consumption Power Requirement USB bus power (optional 5 V DC, 500 mA) Emissions Compliances FCC Class B, CE Certified Hazardous Materials RoHS, WEEE Compliant Warranty Four (4) year System Requirements Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7 Included In The Box INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation Ordering Information INFINITY2-3C 3.3 MP CCD Color Camera Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features) LuSDKSW Software Developer's Kit (Web Download)	Mass	300 g
Operating Humidity  Camera Software  Operating Systems  Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption  Power Requirement  USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances  FCC Class B, CE Certified  Hazardous Materials  RoHS, WEEE Compliant  Warranty  Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C  JOYD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	Operating Temperature	0 to 50 °C
Camera Software  Operating Systems  Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption  -2.5 W  Power Requirement  USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances  FCC Class B, CE Certified  Hazardous Materials  RoHS, WEEE Compliant  Warranty  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C  J.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C  J.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	Storage temperature	-30 to 70 °C
Operating Systems  Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit  Power and Emissions  Power Consumption  -2.5 W  Power Requirement  USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances  FCC Class B, CE Certified  Hazardous Materials  RoHS, WEEE Compliant  Warranty  Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Vindows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C  3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C  3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	Operating Humidity	5 to 95 % non-condensing
Power and Emissions Power Consumption	Camera Software	
Power Consumption	Operating Systems	
Power Requirement USB bus power (optional 5 V DC, 500 mA)  Emissions Compliances FCC Class B, CE Certified  Hazardous Materials RoHS, WEEE Compliant Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW Software Developer's Kit (Web Download)	Power and Emissions	
Emissions Compliances Hazardous Materials RoHS, WEEE Compliant Warranty Four (4) year  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	Power Consumption	~2.5 W
Hazardous Materials  Warranty  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C  JOYD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information  INFINITY2-3C  JOYD with INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Recompliant Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB RAM or more 60 MB RAM or more 60 MB RAM or more 610	Power Requirement	USB bus power (optional 5 V DC, 500 mA)
Warranty  System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box  INFINITY2-3C  JUNESW-DVD  JUN	Emissions Compliances	FCC Class B, CE Certified
System Requirements  Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)		
Pentium 4, 1.3 GHz or higher 512 MB RAM or more 60 MB hard drive free space or more USB 2.0 or USB 3.0 Port Windows 8, 7, XP, Mac OS X 10.7  Included In The Box INFINITY2-3C 3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	,	Four (4) year
Pecommended PC Specs:      Pecommended PC Specs:     Pecommended	System Requirements	
Included In The Box INFINITY2-3C  3.3 MP digital camera + 3m USB 2.0 Cable  DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation  Ordering Information INFINITY2-3C  3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	Recommended PC Specs:	<ul> <li>512 MB RAM or more</li> <li>60 MB hard drive free space or more</li> <li>LISB 2.0 or LISB 3.0 Port</li> </ul>
Luinfsw-dvd (including Infinitry user application software (including Infinitry Analyze), Twain driver and documentation  Ordering Information  INFINITY2-3C 3.3 MP CCD Color Camera  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  Lusding Information  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  Lusding Information  Software Developer's Kit (Web Download)	Included In The Box	
documentation  Ordering Information  INFINITY2-3C  Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW  Software Developer's Kit (Web Download)	INFINITY2-3C	3.3 MP digital camera + 3m USB 2.0 Cable
INFINITY2-3C Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW Software Developer's Kit (Web Download)	LuINFSW-DVD	DVD with INFINITY user application software (including INFINITY ANALYZE), Twain driver and documentation
Ordering Options  INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW Software Developer's Kit (Web Download)	Ordering Information	
LuAFM INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW Software Developer's Kit (Web Download)	INFINITY2-3C	3.3 MP CCD Color Camera
LuAFM (Multi-Focus Composition and Spherical Aberration Correction Features)  LuSDKSW Software Developer's Kit (Web Download)	Ordering Options	
	LuAFM	(Multi-Focus Composition and Spherical Aberration
	LuSDKSW	Software Developer's Kit (Web Download)
Power Supply 5 V DC, 2.5 A, 12.5 W Power Supply (Optional)	Power Supply	5 V DC, 2.5 A, 12.5 W Power Supply (Optional)

