QUASMO
SINCE 1961

PZQ-105MINI

Mini Inverted Tissue Culture Microscope

- Cordless Power Free For Kids Use Outdoors In Any Place
- Complete Accessories Incl. Mobile Phone Holder & All Experiment Tools
- Inverted Design To Watch Both Prepared Slide & Live Cell In Glass Bottle
- Long Working Distance Objectives 4x10x20x Supply Magnification 40x~320x

- **Magnification:** 40x ~ 320xOptical

- **System:** Inverted Achromatic, Long Working Distance

- **Head:** Monocular Head Inclined 45°

- **Eyepiece Tube:** Inner Diameter 23.2mm

- **Eyepieces:** WF10x/14mm, WF16x/9mm

- **Nosepiece:** Triple

- **Objective:** 4x, 10x, 20x

- **Focusing:** Coarse Focus Knob

- **Working Stage:** Single Layer Round Stage, Diameter 118mm, with Clip

- **Condenser:** Long Working Distance Abbe Condenser, N.A. 0.19, with Filter Slot

- **Light Source:** Transmit Light 0.5W LED, Brightness Adjustable

- **Power:** Cordless, Powered by 3x AA 1.5V Batteries (Batteries NOT Included for Air Shipment)

- **Learning Accessories Kit:**

Universal Mobile Phone Holder, Prepared Slides: 5, Blank Slides *7 Slide Cover *7, Slide Sticker *7, Plastic Tweezers, Plastic Petri Dish, Plastic Spatula, Plastic Sample Bottle 2

3.0 Mega Pixel Camera
(USB 2.0)
- Eyepiece Camera Microscopy Imaging Solution
- 2048*1536 CMOS Professional Sensor
- Built In Relay Lens To Widen Field

Features:

- Built-in relay lens to widen field and to have image sharp and bright.
- Compatibility with Windows and MAC.
- Copyright software with 8 languages version.
- Camera house: compact and light-weight round-shaped shell.
- Real active resolution, no interpolation, no jaggies in picture.
- Easy installation, convenient operation.

Functions:

- To convert microscope and stereo microscope into digital ones.
- To adjust the gain, resolution, WB, contrast, exposure time, RGB color and Gamma setting.
- To edit pictures and to manage files of pictures and movies.
- To capture images for living show, for shoot and for video recording.

Specifications:

- **Capture Mode:** Picture and Video
- **Sensor Parameter:** 3.0MP
- **Active Pixels:** 2048 x 1536
- **Responsivity:** 1.4V/lux-sec
- **Dynamic Range:** 70.1dB
- **S/N Ratio:** 38.1dB
- **Spectral Range:** 400-650nm (with IR-filter)
- **Frame Rate:** 15fps @ 2048 x 1536
- **Preview Model:** 2048x1536, 1600x1200, 1280x1024, 800x600, 640x480, 352x288, 320x240
- **Exposure:** ERS or Manual
- **Power Consumption:** 381mW
- **White Balance:** Auto and Manual
- **Eyepiece Adapter Size:** 23.2mm, 30.0mm
- **Power Supply:** USB 2.0 Powered
- **Device Weight:** 0.09kg
- **Device Size:** Φ74.00mm x 97.00mm
- **Cable Length:** 1.5m
- **Function of Software:** Image & Video Capture, Edit, and Management
- **Image format:** JPEG

5.0 Mega Pixel Camera
(USB 2.0)
- Eyepiece Camera Microscopy Imaging Solution
- 2592*1499 CMOS Professional Sensor
- Built In Relay Lens To Widen Field

Features:

- Built-in relay lens to widen field and to have image sharp and bright.
- Compatibility with Windows and MAC.
- Copyright software with 8 languages version.
- Camera house: compact and light-weight round-shaped shell.
- Real active resolution, no interpolation, no jaggies in picture.
- Easy installation, convenient operation.

Functions:

- To convert microscope and stereo microscope into digital ones
- To adjust the gain, resolution, WB, contrast, exposure time, RGB color and Gamma setting.
- To edit pictures and to manage files of pictures and movies.
- To capture images for living show, for shoot and for video recording.

Specifications:

- **Capture Mode:** Picture and Video
- **Sensor Parameter:** 1/2.5" 5.0MP
- **Max. Resolution:** 2592*1944
- **Pixel Size:** 2.2μm*2.2μm
- **Responsivity:** 1.4V/lux-sec
- **Dynamic Range:** 70.1dB
- **S/N Ratio:** 38.1dB
- **Spectral Range:** 400-650nm (with IR-filter)
- **Frame Rate:** 10fps@2592*1944
- **Preview Model:** 2592x1944, 2048x1536, 1600x1200, 1280x1024, 800x600, 640x480, 352x288
- **Exposure:** ERS or Manual
- **Power Consumption:** 381mW
- **White Balance:** Auto and manual
- **Eyepiece Adapter Size:** 23.2mm, 30.0mm
- **Power Supply:** USB 2.0 Powered
- **Device Weight:** 0.09kg
- **Device Size:** 97mm*Φ74mm
- **Cable length:** 1.5m
- **Image format:** JPEG

QUASMO
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5 Mega Pixel Camera
(USB 2.0)

Features:

- Standard C-Mount camera with Aptina CMOS sensor;

- With hardware resolution among 0.35M to 14M;

- Integrated zinc aluminum alloy housing;

- USB2.0 interface ensuring high speed data transmission;

- Ultra-Fine color engine with perfect color reproduction capability;

- With advanced video & image processing application Toup View;

- Windows/Linux/macOS/Android multiple platform SDK;

Technical Specification:

- **Order Code:** UC-5

- **Sensor & Size(mm)**: 5.1M/AR0521, with a size of 1/2.5" (5.70x4.28 mm)

- **Pixel(μm):** Each pixel measures 2.2x2.2 micrometers

- **G Sensitivity Dark Signal::** 18.8ke-/lux, 73dB, 40dB

- **FPS/Resolution:**

  -> 7.0 frames per second at 2592x1944 resolution

  -> 27.7 frames per second at 1296x972 resolution

  -> 100.5 frames per second at 648x486 resolution

- **Binning:** Supports binning at 1x1, 2x2, and 4x4

- **Exposure:** Exposure time ranges from 0.2 ms to 2000 sec.

- **Image format:** BMP,JPEG, RAW, TIFF, AVI
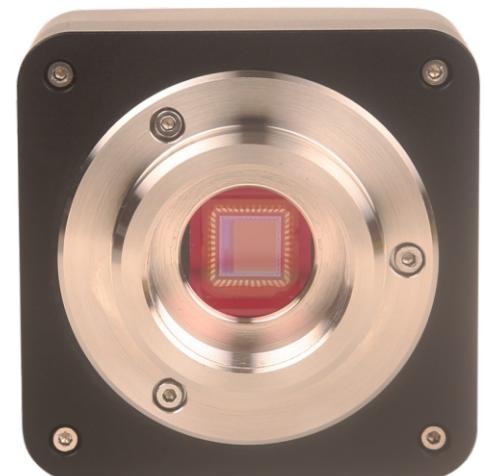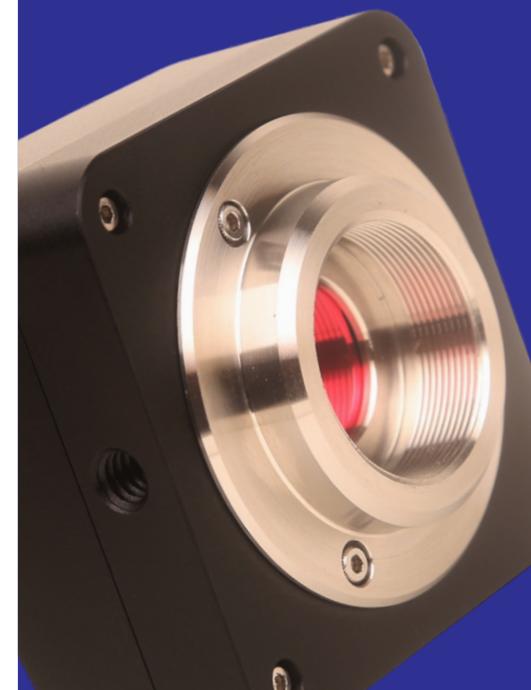
Sample Images Captured with ULTRACAM UC-5

QUASMO
SINCE 1961
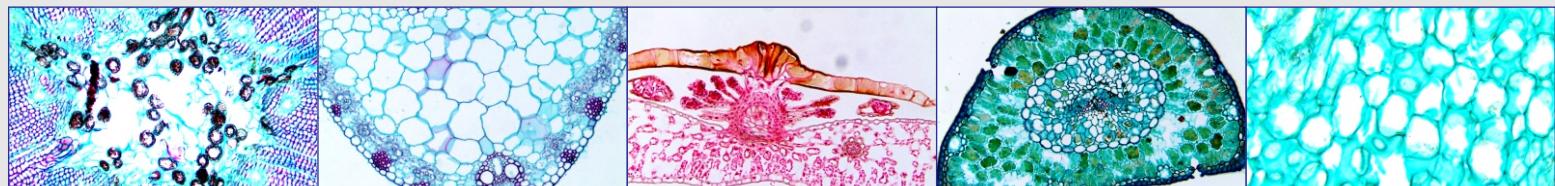
ULTRACAM UC-10

10 Mega Pixel Camera
(USB 3.0)

Features:

- Standard C-Mount camera with Aptina CMOS sensor;

- With hardware resolution among 3.0M to 18M;

- Integrated zinc aluminum alloy housing;

- USB3.0 5Gbps interface ensuring high speed data transmission;

- Ultra-Fine color engine with perfect color reproduction capability;

- With advanced video & image processing application ToupView;

- Windows/Linux/macOS/Android multiple platform SDK;

Technical Specification:

- **Order Code:** UC-10

- **Sensor & Size(mm)**: 10M/IMX577©, with a size of 1/2.3" (5.68x4.26)

- **Pixel(µm):** Each pixel measures 1.55x1.55 micrometers

- **G Sensitivity Dark Signal::** 250mv with 1/30s 0.25mv with 1/30s

- **FPS/Resolution:**

  -> 8.5 frames per second at 3664x2748 resolution

  -> 49 frames per second at 1832x1374 resolution

  -> 137 frames per second at 912x686 resolution

- **Binning:** Supports binning at 1x1, 2x2, and 4x4

- **Exposure:** Exposure time ranges from 0.1 ms to 2000 sec.

- **Image format:** BMP, JPEG, RAW, TIFF, AVI
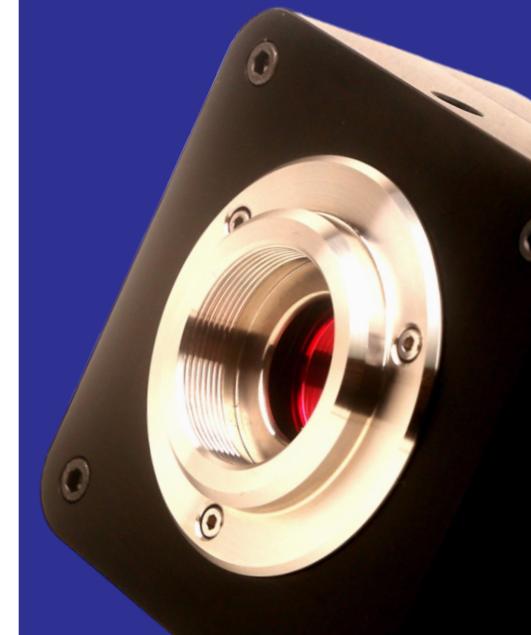
Sample Images Captured with ULTRACAM UC-10
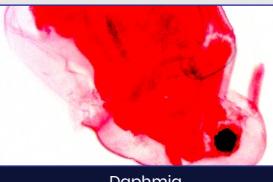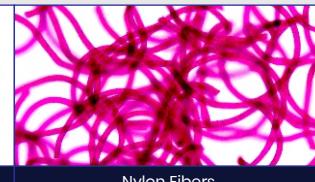
| Pine Stem C.S | Daphmia | Nylon Fibers | Housefly Foot | Hydrilla Leaf Cell |
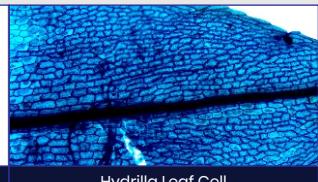
ULTRACAM UC-16

16 Mega Pixel Camera
(USB 3.0)

Features:

- Sony STARVIS 2 back-illuminated CMOS sensor
- 4K HDMI/ NETWORK/ USB multiple video synchronous outputs
- 4K/1080P auto switching according to monitor resolution
- High frame rate output, supporting up to 4K 75fps
- Support 4K 60fps low delay HDMI output mode, with an average delay of 40ms
- SD card/USB flash drive for captured image and video storage, support local preview and playback
- New browsing function, providing rich file operations
- Excellent ISP with local tone mapping and 3D denoising
- Provide two sets of default ISP parameters for biological and stereo microscope
- Embedded XCamView for the control of the camera control, image processing and measurements
- ToupView/ToupLite software for PC
- iOS/Android applications for smart phones or tablets

Technical Specification:

- **Order Code:** UC-16
- **Sensor & Size(mm)**: Sony IMX283©, with a size of 1/1.1"(13.06x7.34)
- **Pixel(μm):** Each pixel measures 2.4x2.4 micrometers
- **G Sensitivity Dark Signal::** 1847mv with 1/30s, 0.84mv with 1/30s
- **FPS/Resolution:**
  - -> 20 frames per second at 5440x3060 resolution
  - -> 30 frames per second at 2688x1512 resolution
  - -> 30 frames per second at 1920x1080 resolution
- **Binning:** Supports binning at 1x1
- **Exposure:** Exposure time ranges from 0.104 ms to 1000 sec.
- **Image format:** BMP, JPEG, RAW, TIFF, AVI

Sample Images Captured with ULTRACAM UC-16

| Human Skin And Hair Follicle Slicing	Cucurbi tStem LS	Butterfly Squama	Blood of Frog Smear	Cotton Fibre
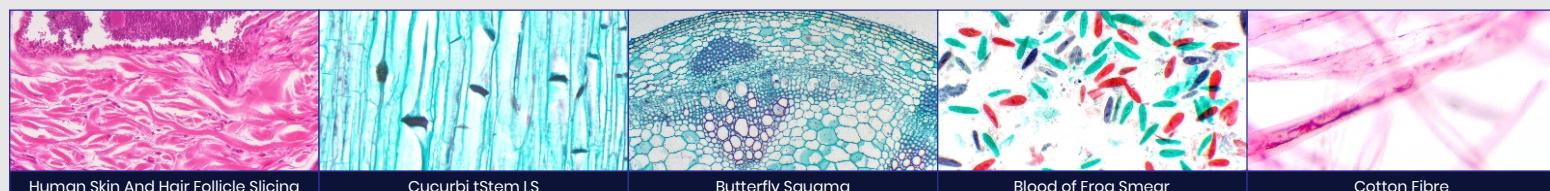
ULTRACAM UC-20

20 Mega Pixel Camera
(USB 3.0)

Features:

- Standard C-Mount camera with Aptina or Panasonic CMOS sensor;
- With hardware resolution among 16M to 18M;
- Ultra-fineTM HISP VP and USB3.0 5 Gbps interface ensuring high frame rates(Up to 13 frames for 18M Resolution)
- CNC aluminum alloy housing;
- USB3.0 5Gbps interface ensuring high speed data transmission;
- Ultra-Fine color engine with perfect color reproduction capability;
- With advanced video & image processing application ToupView;
- Windows/Linux/macOS/Android multiple platform SDK;

Technical Specification:

- **Order Code:** UC-20
- **Sensor & Size(mm)**: 20M/AR2020©, with a size of 1/1.8"(7.17x5.38)
- **Pixel(µm):** Each pixel measures 1.4x1.4 micrometers
- **G Sensitivity Dark Signal::** 8.4 ke-/lux.sec
- **FPS/Resolution:**
  -> 20 frames per second at 5120x3840 resolution
  -> 45 frames per second at 2560x1920 resolution
  -> 137 frames per second at 912x686 resolution
- **Binning:** Supports binning at 1x1, 2x2
- **Exposure:** Exposure time ranges from 0.2 ms to 1500 sec.
- **Image format:** BMP, JPEG, RAW, TIFF, AVI

Sample Images Captured with ULTRACAM UC-20

| Bird Feather | Broad Bean Leaf Epidermis | Butterfly Squama | Blood of Frog Smear | Cotton Fibre |
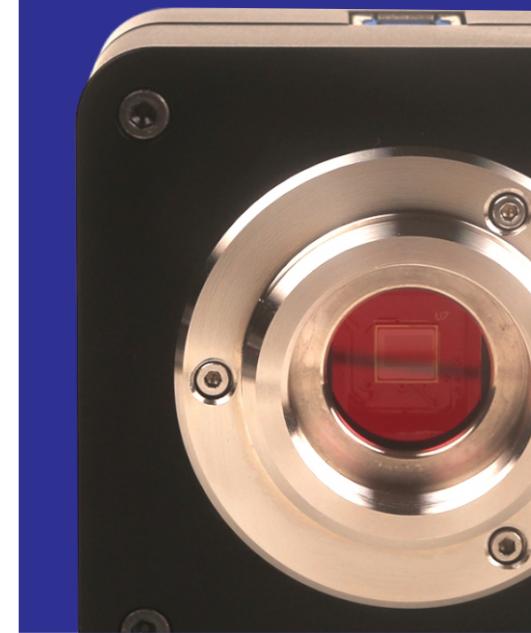
ULTRACAM UC-25

25 Mega Pixel Camera
(USB 3.0)

Features:

- SONY Exmor Back-illuminated CMOS sensor with USB3.0 interface;

- Real-time 8/12/14/16bit depth switch(depending on sensor);

- Super high sensitivity up to 2350mV(IMX385);

- Ultra low noise and low power dissipation;

- With hardware resolution among1.5M to 20M;

- Rolling Shutter or Global Shutter; Standard C-Mount camera; CNC aluminum alloy housing;

- With advanced video & image processing application ToupView;

- Ultra-fine Color hardware Color Enginne ensuring high frame rates(Up to 15 frames for 20M Resolution);

- Windows/Linux/macOS/Android multiple platform SDK;
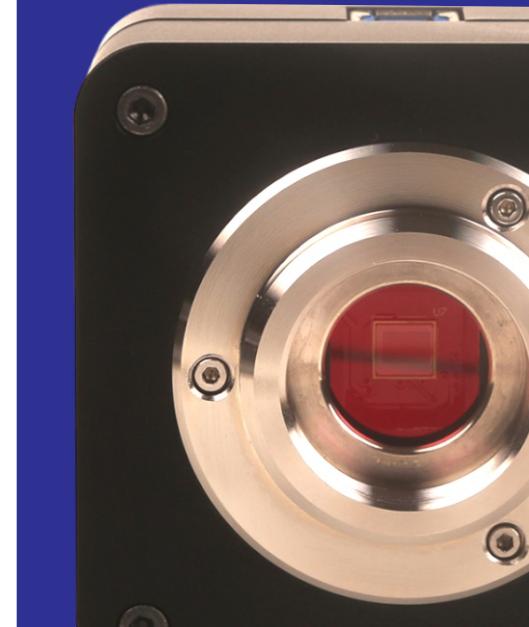
Technical Specification:

- **Order Code:** UC-25

- **Sensor & Size(mm)**: 25M/IMX511©, with a size of 1/2.3"(5.519x5.519)mm.

- **Pixel(μm):** Each pixel measures 1.12x1.12 micrometers

- **G Sensitivity Dark Signal::** 96.3mv with 1/30s & 0.1mv with 1/30s

- **FPS/Resolution:**

  -> 12 frames per second at 4928x4928 resolution

  -> 46 frames per second at 2464x2464 resolution

  -> 100 frames per second at 1648x1648 resolution

- **Binning:** Supports binning at 1x1, 2x2, 3X3

- **Exposure:** Exposure time ranges from 0.013 ms to 15 sec.

- **Image format:** BMP, JPEG, RAW, TIFF, AVI

Sample Images Captured with ULTRACAM UC-25

| Red Fluorescent Image | Fused Fluorescent Image | Blue Fluorescent Image | Fused Fluorescent Image | Green Fluorescent Image |
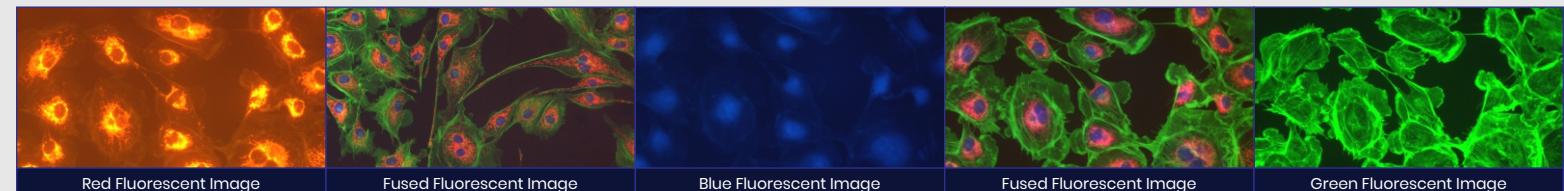
5 Mega Pixel Camera
(HDMI+USB 2.0+WiFi+SD Card All in 1 CMOS Camera)

Features:

- All in 1(HDMI+USB 2.0+WIFI+SD card) C-mount camera with high sensitivity CMOS sensor;
- Simultaneous HDMI & WIFI output;
- Built-in mouse control;
- Built-in image capture & video record to SD card;
- Built-in camera control panel for mouse control;
- Built-in toolbar including zoom,mirror,comparison,freeze,cross,browser functions;
- Built-in image & video browsing,display & play;
- Ultra-Fine color engine with perfect color reproduction capability(USB);
- With advanced video & image processing application ToupView, ;
- Support standard SDK for Windows/Linux/macOS/Android(USB);
- CNC shell molding design;

Technical Specification:

- **Order Code:** QHD-5
- **Sensor & Size(mm):** Sony IMX178©, 1/1.8" (6.22x4.67)
- **Pixel(μm):** 2.4x2.4
- **G Sensitivity:** 425 mv with 1/30s
- **Dark Signal:** 0.15 mv with 1/30s
- **FPS/Resolution:**
    -> 30 FPS at 1920x1080 (via HDMI)
    -> 25 FPS at 1920x1080 (via WiFi)
- **Binning:** 1x1
- **Exposure:** Ranges from 0.03ms to 918ms
- **Image format:** BMP, JPEG, RAW, TIFF, AVI

Sample Images Captured with QHD-5
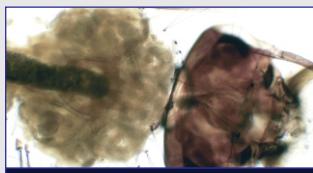
| Mosquito Larva | Privet Leaf | Large Intestine Sec | Housefly Mouth Parts | Skin of Frog |
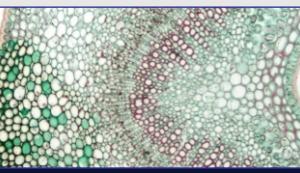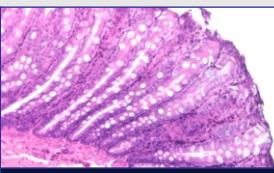
5 Mega Pixel Camera
## (Auto-focus+HDMI+USB 2.0+WIFI+SD Card All in 1 CMOS Camera)

Features:

- All in 1(HDMI+USB 2.0+WiFi) C-mount camera with Sony high sensitivity CMOS sensor;
- 1920 × 1080 (1080P) video resolution;
- Record 1080P video(ASF format) into SD card;v
- 5~2M resolution captured image(XFCAM1080PHB/PHD);
- HDMI/WiFi output simultaneously;
- Auto/Manual focus with the movement of the sensor;
- For HDMI output, XCamView is used to control the camera;
- For WiFi output, ToupView/ToupLite is used to control the camera;
- Ultra-Fine Color Engine with perfect color reproduction capability(WiFi);
- With advanced video & image processing application ToupView/ToupLite;
- Windows/Linux/OSX/Android multi-platform SDK;
- CNC Camera housing;

Technical Specification:

- **Order Code:** QHD-5AF
- **Sensor & Size(mm):** Sony IMX178©, 1/1.8" (6.22x4.67)
- **Pixel(μm):** 2.4x2.4
- **G Sensitivity:** 425 mv with 1/30s
- **Dark Signal:** 0.15 mv with 1/30s
- **FPS/Resolution:**
   -> 30 FPS at 1920x1080 (via HDMI)
   -> 25 FPS at 1920x1080 (via WiFi)
- **Binning:** 1x1
- **Exposure:** Ranges from 0.03ms to 918ms
- **Image format:** BMP, JPEG, RAW, TIFF, AVI

Sample Images Captured with QHD-5AF
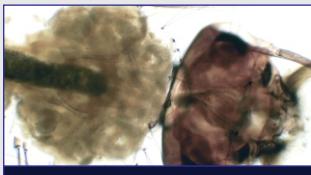
| Mosquito Larva | Privet Leaf | Large Intestine Sec | Housefly Mouth Parts | Skin of Frog |
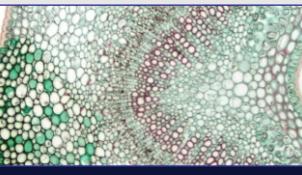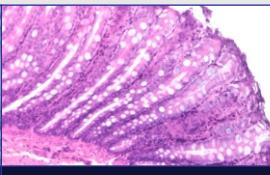
8 Mega Pixel Camera
(HDMI+USB 3.0+SD Card All in 1 C-mount CMOS Camera)

Features:

- All in 1(HDMI+USB 3.0+SD card) C-mount camera with high sensitivity CMOS sensor;
- Simultaneous HDMI & USB 2.0 output;
- Built-in mouse control;
- Built-in image capture & video record to SD card;
- Built-in camera control panel for mouse control;
- Built-in toolbar including zoom, Mirror, Comparison, Freeze, Cross, Browser Functions;
- Built-in image & video browsing, display & play;
- Ultra-Fine color engine with perfect color reproduction capability(USB 2.0);
- With advanced video & image processing application ToupView, ;
- Support standard UVC for Windows/Linux/Mac(USB);
- CNC shell molding design;

Technical Specification:

- **Order Code:** QHD-8U
- **Sensor & Size(mm):** Sony IMX236©, 1/2.8" (5.38x3.02)
- **Pixel(µm):** 2.8x2.8
- **G Sensitivity:** 510 mv with 1/30s
- **Dark Signal:** 0.15 mv with 1/30s
- **FPS/Resolution:**
    -> 30 FPS at 1920x1080 (via HDMI)
    -> 30 FPS at 1920x1080 (via USB)
- **Binning:** 1x1
- **Exposure:** Ranges from 0.1ms to 999ms
- **Image format:** BMP, JPEG, RAW, TIFF, AVI

Sample Images Captured with ULTRACAM QHD-8U

Hydra LS	Silk Fibers	Asoergillus	Ranunculus Japonicus	Limewood Stem

8 MP 4K Ultra HD Camera

(HDMI+USB 3.0+LAN+Wifi) Multi-outputs C-mount CMOS Camera)

Features:

- Sony Exmor/STARVIS back-illuminated CMOS sensor
- 4K HDMI/ NETWORK/ USB multiple video outputs
- 4K/1080P auto switching according to monitor resolution
- SD card/USB flash drive for captured image and video storage, support local preview and playback
- Embedded XCamView for the control of the camera and image processing
- Excellent ISP with local tone mapping and 3D denoising
- ToupView/ToupLite software for PC
- iOS/Android applications for smart phones or tablets

Technical Specification:

- **Order Code:** QHD-84K
- **Sensor & Size(mm):** 4K/Sony IMX334©, 1/1.8"(7.68x4.32)
- **Pixel(μm):** 2.0x2.0
- **G Sensitivity:** 505 mv with 1/30s
- **Dark Signal:** 0.13 mv with 1/30s
- **FPS/Resolution:**
    -> 30 FPS at 3840x2160 (via HDMI)
    -> 30 FPS at 3840x21600 (via LAN)
    -> 30 FPS at 3840x2160 (via USB)
- **Binning:** 1x1
- **Exposure:** Ranges from 0.04ms to 1000ms
- **Image format:** BMP, JPEG, RAW, TIFF, AVI

Sample Images Captured with ULTRACAM QHD-84K

| Stomach Sec | Simple Cuboidal Epithelium Sec | Capsella Older Emdryo Sec | Cucurbit Stem LS | Pear Sec Showing Stone Ceil |

16 MP 4K Ultra HD Camera

(HDMI+USB 3.0+LAN+Wifi) Multi-outputs C-mount CMOS Camera)

Features:
- Sony STARVIS 2 back-illuminated CMOS sensor
- 4K HDMI/ NETWORK/ USB multiple video synchronous outputs
- 4K/1080P auto switching according to monitor resolution
- High frame rate output, supporting up to 4K 75fps
- Support 4K 60fps low delay HDMI output mode, with an average delay of 40ms
- SD card/USB flash drive for captured image and video storage, support local preview and playback
- New browsing function, providing rich file operations
- Excellent ISP with local tone mapping and 3D denoising
- Provide two sets of default ISP parameters for biological and stereo microscope
- Embedded XCamView for the control of the camera control, image processing and measurements
- ToupView/ToupLite software for PC
- iOS/Android applications for smart phones or tablets

Technical Specification:
- **Order Code:** UC-164K
- **Sensor & Size(mm)**: Sony IMX283©, with a size of 1/1.1"(13.06x7.34)
- **Pixel(µm):** Each pixel measures 2.4x2.4 micrometers
- **G Sensitivity Dark Signal::** 1847mv with 1/30s, 0.84mv with 1/30s
- **FPS/Resolution:**
    -> 20 frames per second at 5440x3060 resolution
    -> 30 frames per second at 2688x1512 resolution
    -> 30 frames per second at 1920x1080 resolution
- **Binning:** Supports binning at 1x1
- **Exposure:** Exposure time ranges from 0.104 ms to 1000 sec.
- **Image format:** BMP, JPEG, RAW, TIFF, AVI

Sample Images Captured with ULTRACAM UC-164K

| Human Skin And Hair Follicle Slicing | Cucurbi tStem LS | Butterfly Squama | Blood of Frog Smear | Cotton Fibre |