

Technical Specifications	CatCam200EHU
Image Sensor (CMOS)	1/2.8" Color
Scan Mode	Progressive
Pixel size (active pixel)	2.8µm x 2.8µm
Pixels	2.0MP
Max. Resolution	1920 x 1080
Video Resolution	60fps @ 1920 x 1080P (HDMI) 30fps @ 1920 x 1080 (USB)
Image Resolution	1920 x 1080
Dynamic Range	70.1dB
SN Ratio	38.1dB
A/D Converter	12-bit Parallel
Binning	1x1
Spectral Range	380 - 650nm (with IR-cut Fiter)
Optical Interface	Microscope C-Mount / Photo-tube or Ocular-tube
Size of mounting barrel	23.2mm and 30mm/30.5mm with adaptor
Data Interface	HDMI / USB2.0
Exposure	0.1ms~999ms, ROI Auto & Manual
White Balance	ROI White Balance / Manual Temp Tint Adjustment
Operating Temperature	-10 ~ 50°C
Operating Humidity	30 - 80% RH
Power supply	DC 12V/2A Adaptor

Interface & Button



1. LED Power ON Indicator
2. USB Port
3. HDMI Port
4. SD Card Slot
5. DC 12V Input
6. Power On/Off Switch



Catalyst Biotech



CatCam E-Series

HDMI - USB - SD Card

Upgrade to
IMAGE ANALYSIS SYSTEM
without changing
YOUR EXISTING MICROSCOPE



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Keeping up with the legacy of **CatCam**, the **E-Series HDMI** is a easy-to-use digital scientific camera with a color CMOS sensor interfacing with a computer via high-speed HDMI / USB 2.0 and compatible with all the versions of Windows OS. It allows independent operation for high-definition digital imaging at a hardware resolution 2MP effective pixels without using any image grabber card and optimizes for real-time acquisition, fine-tuning exposure & white balance settings to achieve the best balance between resolution and contrast. It captures microscope images and displays real-time video on your PC screen. The camera has built-in image capture and video recording to be saved directly onto the SD card. It offers full-screen -size display and the best resolution your computer monitor can provide.

CatCam E-Series HDMI comes coupled with the multi-functional user-friendly advance software, **Catymage**, which allows you to preview live images, capture still images and save in various formats, record videos, edit images and also perform micrometry.



Compatible with any type of microscope

CatCam E-Series HDMI works excellent with all kinds of microscope, be it compound upright, inverted or stereo microscope. It optically interfaces with the ocular-tube (by replacing the eye-piece) in case of monocular or binocular microscope and with the C-mount / photo-tube in case of trinocular microscope

Easy to Connect - Convenient to use

CatCam E-Series HDMI is a plug-and-play device. It interfaces with the computer via High speed HDMI port or USB 2.0 port with a single respective data cable eliminating the need of frame-grabbers. This facilitates the user with a choice to connect to either a desktop or a laptop computer.

Speed and Resolution

Each model of CatCam E-Series HDMI has an option to select between higher and lower resolution, which helps in providing you with an ideal ratio between speed of data transmission (fps) and the resolution of your specimen's image. The unique sensor architecture is able to provide - frame rates fast enough to capture high speed cell events and lower noise for better signal-to noise measurements at the short exposure times required to achieve high frame rates.

Camera Control

The camera control has been integrated into the user-friendly intuitive software, Catymage, which controls every operation of the camera and post image acquisition process with just the click of PC mouse/keyboard buttons.

Stand-alone operation

The camera has an in-built USB mouse control and also facility to capture image and video, directly onto the SD card.

Software

Catymage from Catalyst Biotech is an advanced yet user-friendly and intuitive software, supplied with CatCam E-Series Cameras. It allows you to control all the functions of the camera along with acquisition, processing, analysis and browsing of the images. A simple user interface makes the installation a simple task and is compatible with all the versions of Windows OS.

Catymage has a very User-friendly UI design with well arranged menus and toolbars to ensure quick operation. It has a unique design of Five sidebars to control - Camera, Folders, Undo/Redo, Layer and Measurement.



Hardware Control Module

Exposure & Gain

Auto / manual exposure; Up to 5 times gain

White Balance

Advanced single-click intelligent white balance setting, temperature and tint can be manually adjusted

Color Adjustment

Hue, saturation, brightness, contrast, gamma initialization adjustment

Frame Rate Control

Adjustment of frame rate available for different computer configurations;

Power Frequency Setting(Anti-flicker)

Natural light/DC, AC 50 HZ, AC60 HZ switch function thoroughly eliminates video flicker;

Flip

Check the "horizontal" or "vertical" option to eliminate the mirror effect;

Skip and bin sampling

Bin mode can obtain low noise video stream; Skip mode obtains sharper and smoother video stream.

Parameters

Load, save, overwrite, import, export self-defined parameters of camera control panel (including calibration information, exposure and color setting information);

Image Processing & Analyzing module

Video functions

Various professional functions : Video broadcast; Time lapse capture; Video record; Video watermark; Video stream grid; Video measurement; Video calibration, Gray calibration; Video EDF; Image stitch; Video scale bar, date and etc.

Image Processing and Enhancement

Control and adjust image by contrast, etc.

Measurement

Easy video or image calibration. Various video and image measurement methods like area, perimeter, angle etc..

Image Stitching

Image stitching can automatically combine a sequence of relevant images into a perfect larger one

EDF(Extended Depth of Focus)

Aimed at generating a clearer image by combining a sequence of previously captured multi-focus images;

Segmentation & Count function

Integrates the advanced 6 image segmentation and particle counting algorithm

Image Stacking

Image stacking adopts advanced image matching technology.

Color Composite

Color composite adds appropriate pseudo color to monochrome fluorescence images.

