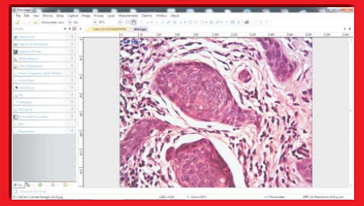
Software

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-filcker)
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.

CatCam E-Series Models suitable for - Fluorescence, Dark-field and Bright-field Microscopy

Technical Specifications	CatCam300EF	CatCam500EF
Image Sensor (CCD)	1/1.8” Color	2/3” Color
Scan Mode	Interlaced	
Pixel size (active pixel)	3.45µm x 3.45µm	3.4µm x 3.4µm
Pixels	3.1MP	5.0MP
Max. Resolution	2048 x 1536	2560 x 1920
Sensitivity	455mv with 1/30s Accumulation	260mv with 1/30s Accumulation
Speed / Frame Rate (frames/sec)	6 @ 2048x1536 41 @ 640x480	45 @ 2560x1920 9 @ 1280x960
Dynamic Range	70dB	
SN Ratio	62dB	
A/D Converter	12-bit Parallel, 8-bit RGB to PC	
Binning	1x1, 2x2	
Spectral Range	380 - 650nm (with IR-cut Fiter)	
Optical Interfce	Microscope C-Mount / Photo-tube or Ocular-tube	
Size of mounting barrel	23.2mm and 30mm/30.5mm with adaptor	
Computer Interface	USB 2.0 hot plug and thrust via a USB cable of 1.8m length	
Exposure	0.18ms~77ms, ROI Auto & Manual	0.20ms~105ms, ROI Auto & Manual
White Balance	ROI White Balance / Manual Temp Tint Adjustment	
Operating Temperature	-10 ~ 50°C	
Operating Humidity	30 - 80% RH	
Image output	USB 2.0 , 480Mb/s	
Power supply	USB 2.0 Port	
Cooling System	Natural	
Accessories included	Two adaptors (dia. 30mm, dia. 30.5mm, one each)	

System requirement

- CPU equivalent to Intel Core 2
- 2.8GHz or Higher
- 2GB RAM or more
- 100MB or more of free Hard Disk space
- CD ROM Drive
- Hi-Speed USB2.0 port

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ISO 9001:2008 Certified Company

Our Authorised Distributor :

Catalyst Biotech

CatCam
E-Series

Upgrade to
IMAGE ANALYSIS SYSTEM
without changing
YOUR EXISTING MICROSCOPE

Keeping up with the legacy of CatCam, the E-Series is a easy-to-use digital scientific camera with a color CMOS/CCD sensor interfacing with a computer via high-speed 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 between 1.3MP to 14MP 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. It offers full-screen -size display and the best resolution your computer monitor can provide. CatCam E-Series 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 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

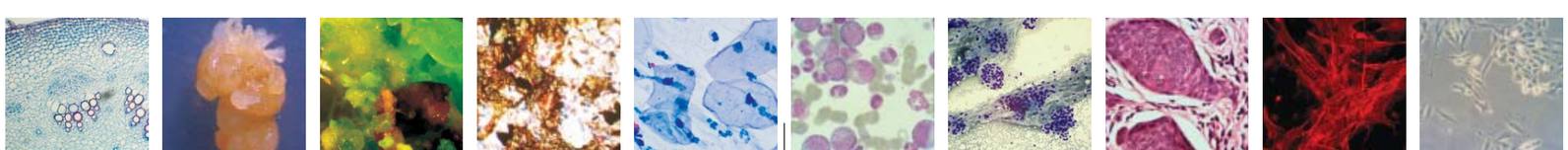
CatCam E-Series is a plug-and-play device. It interfaces with the computer via High speed USB 2.0 port with a single data cable eliminating the need of framegrabbers. This facilitates the user with a choice to connect to either a desktop or a laptop computer. No external power supply is needed as the device gets power from USB port.

Speed and Resolution

Each model of CatCam E-Series 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.



CatCam E-Series Models suitable for Bright-field Microscopy only

Technical Specifications	CatCam130E	CatCam200E	CatCam300E	CatCam500E	CatCam800E	CatCam900E	CatCam1000E	CatCam1400E
Image Sensor (CMOS)	1/3" Color	1/2" Color	1/2" Color	1/2.5" Color	1/2.5" Color	1/2.4" Color	1/2.3" Color	1/2.3" Color
Scan Mode	Progressive							
Pixel size (active pixel)	3.6µm x 3.6µm	3.2µm x 3.2µm	3.2µm x 3.2µm	2.2µm x 2.2µm	1.67µm x 1.67µm	1.67µm x 1.67µm	1.67µm x 1.67µm	1.4µm x 1.4µm
Pixels	1.3MP	2.0MP	3.1MP	5.0MP	8.0MP	9.0MP	10.0MP	14.0MP
Max. Resolution	1280 x 1024	1600 x 1200	2048 x 1536	2592 x 1944	3264 x 2448	3488 x 2616	3584 x 2748	4096 x 3288
Sensitivity (@550nm)	1.0v/lux-sec	1.0v/lux-sec	1.0v/lux-sec	0.53v/lux-sec	0.31v/lux-sec	0.33v/lux-sec	0.31v/lux-sec	0.724v/lux-sec
Speed / Frame Rate (frames/sec)	15 @ 1280x1024 26 @ 640x512 50 @ 320x256	16 @ 1600x1200 50 @ 800x600	8 @ 2048x1536 22 @ 1024x768 43 @ 680x510	5 @ 2592x1944 18 @ 1280x960 60 @ 640x480	1.9 @ 3264x2448 8 @ 1600x1200 27 @ 800x600	1.9 @ 3488x2616 8 @ 1744x1308 27 @ 872x654	1.9 @ 3584x2748 8 @ 1792x1374 27 @ 896x684	1.8 @ 4096x3288 10 @ 2048x1644 27 @ 1024x822
Dynamic Range	71dB	71dB	61dB	66.5dB	65.2dB	65.2dB	65.2dB	65.3dB
SN Ratio	44dB	42.3dB	43dB	40.5dB	34dB	34dB	34dB	35.5dB
A/D Converter	10-bit, 8-bit RGB to PC	12-bit, 8-bit RGB to PC	10-bit, 8-bit RGB to PC	12-bit, 8-bit RGB to PC	10-bit, 8-bit RGB to PC	10-bit, 8-bit RGB to PC	10-bit, 8-bit RGB to PC	12-bit, 8-bit RGB to PC
Binning	1x1, 2x2, 4x4	1x1, 2x2	1x1, 2x2, 3x3	1x1, 2x2, 4x4	1x1, 2x2, 4x4	1x1, 2x2, 4x4	1x1, 2x2, 4x4	1x1, 2x2, 4x4
Spectral Range	380 - 650nm (with IR-cut Filter)							
Optical Interfce	Microscope C-Mount / Photo-tube or Ocular-tube							
Size of mounting barrel	23.2mm and 30mm/30.5mm with adaptor							
Computer Interface	USB 2.0 hot plug and thrust via a USB cable of 1.8m length							
Exposure	0.14ms~2000ms, ROI Auto & Manual	0.128ms~2000ms, ROI Auto & Manual	0.128ms~2000ms, ROI Auto & Manual	0.21ms~2000ms, ROI Auto & Manual	0.38ms~2000ms, ROI Auto & Manual	0.38ms~2000ms, ROI Auto & Manual	0.38ms~2000ms, ROI Auto & Manual	0.4ms~2000ms, ROI Auto & Manual
White Balance	ROI White Balance / Manual Temp Tint Adjustment							
Operating Temperature	-10 ~ 50°C							
Operating Humidity	30 - 80% RH							
Image output	USB 2.0 , 480Mb/s							
Power supply	USB 2.0 Port							
Cooling System	Natural							
Accessories included	Two adaptors (dia.30mm, dia.30.5mm, one each)							