

Motic[®]
Digital Microscopy

Moticam Digital Microscopy Cameras

Turn any Microscope into a Digital Microscope



Moticam 330 NTSC / Pal

Attachable analog microscope camera

This small camera can easily be attached to almost any microscope. Featuring a powerful analogue CCD chip available in either NTSC or Pal version, the Moticam 330 delivers a crisp and clear image to a Television, a VCR or even a suitably equipped overhead projector.

The Moticam 330 has received great comments from teachers, as they are now able to show the entire class a full colour live image from just one single microscope. The supplied accessories also include a CCD lens and a Macrotube, which allow this camera to be used as a macro or documentation camera as well.

Make teaching with microscopes easier with this affordable, compact and lightweight camera.



The Moticam 330 uses a focusable 12mm lens

Moticam 480 NTSC / Pal

A flexible 3-in-1 camera approach to digital microscopy

This truly unique camera features a powerful Sony CCD chip, which delivers not one, not two but three simultaneous output signals. The Moticam 480 can be connected to a Computer (using a USB1.0 output), a Television (using an RCA output) as well as an Overhead Data Projector (using an S-Video output) just to name one possible combination.

A favourite of Universtiy Professors, the Moticam 480 also includes a standard C-Mount interface as well as four different eyepiece adapters and a CCD lens making sure that the camera can be mounted onto virtually any microscope. Together with Motic's powerful application software (Motic Images Plus 2.0ML), this microscope guarantees flexibility and years of enjoyable discoveries.



The Moticam 480 features a built-in analog/digital converter and uses a focusable 12mm lens

Moticam 350

Introductory digital microscope camera

Turning your microscope into a digital microscope has never been this easy or affordable. The Moticam 350 mounts onto virtually any microscope with its standard C-Mount lens mount and four different eyepiece adapters. With the provided 8mm CCD lens, this 640x480 CCD chip provides excellent colour definition. Coupled with the powerful Motic Images Plus 2.0ML application software, this package will not leave you wanting for more. The Moticam 350 uses a standard USB1.0/1.1 interface which makes it compatible with almost all of today's computers. This camera can also be used with most second-hand computers that have USB built-in. Please see the minimum specification recommendations listed at the end of this brochure.

The Moticam 350 puts Digital Microscopy into everyone's reach.



The Moticam 350 uses a focusable 8mm lens

Moticam 1000

Affordable high-resolution microscope camera

Hi-Speed
USB2.0
Compatible

With a maximum live image resolution of 1280x1024 pixels, this camera is a world-market first.

Combined with Motic's powerful application software (Motic Images Plus 2.0ML), the Moticam 1000 is a compact and versatile digital microscopy tool. Supplied with four different eyepiece adapters to fit almost any microscope's eyepiece, the 1.3 Megapixel CMOS imaging chip will turn microscopy into a truly multi-media experience. The standard C-Mount ensures that this camera can also be used on any trinocular microscope when used with the correct adapter.

The easy plug & play USB2.0 interface makes the Moticam 1000 very simple to install. A free USB2.0 PCI card is included in the package to upgrade your desktop computer.

Use this microscope to not only capture but also teach with amazing microscope images. Perfect for compound microscopes and suitable also for stereo microscopes when additional illumination is used for higher magnifications.



The high-resolution Moticam 1000 uses a focusable 16mm lens

Moticam 2000

Lightweight metal 2.0 megapixel Camera

Hi-Speed
USB2.0
Compatible



The high-resolution Moticam 2000 uses a focusable 16mm lens

Attach this camera to virtually any microscope and be amazed with its live and still image resolution of 1600x1200 pixels.

Combined with Motic's powerful application software (Motic Images Plus 2.0ML), this camera is an ideal platform for both professional and amateur digital microscopists. There is nothing similar available in the market today that can offer such a combination of hardware capability and software flexibility. Live image filtering and noise reduction are possible before capturing any image.

Supplied with four different eyepiece adapters to fit almost any microscope's eyepiece, the 2.0 Megapixel CMOS imaging chip will turn microscopy into a truly multi-media experience. The standard C-Mount ensures that this camera can also be used on any trinocular microscope when used with the correct adapter. An additional B&S adapter is supplied in order to mount the camera directly into the microscope's eyetube when needed.

The easy plug & play USB2.0 interface makes the Moticam 2000 very simple to install. A free USB2.0 PCI card is included in the package to upgrade your desktop computer.

The combination of lightweight metal, compact design and powerful application software make the Moticam 2000 a perfect tool to turn your microscope into a digital microscope. For some magnifications on stereo microscopes, additional incident illumination may be required.

Moticam 3000/5000

Professional CCD cameras with optional Peltier cooling

Containing high-resolution CCD imaging chips, the Moticam 3000 and the Moticam 5000 are capable of delivering 3.3 and 5.0 Megapixels respectively. Together with Motic's professional application software including Manual Segmentation as well as Multi Focus and Images Assembly, both Moticams provide a solid platform for professional image analysis. For digital imaging requiring a high light-sensitivity, an optional Peltier Cooling device is available.



Shown: Moticam 3000 Cooled

Accessories

To make the Moticams more flexible, several accessories are provided as standard or optional. Together with these accessories, any current microscope can be turned into a Digital Microscope. Please check the configuration table at the end of this brochure.

Certified Calibration Slides

Because accurate quantification of digital microscopy images is based on accurate measuring results, a Certified Motic Calibration slide is used together with the application software. Once calibrated, your Moticam and your computer will provide you with reliable results throughout your research.



Certified Calibration Slides

Focusable Lens

The focusable lens allows the camera to be used together with the Macro Tube or the Gooseneck for Macro applications. This lens also allows the camera to be mounted directly onto your microscope's eyepiece with one of the four adaptors provided. One correctly-sized lens is included in the package.



Focusable CCD Lens

Eyepiece adapters

When used with the focusable lens, the adapters allow the Moticam to be mounted onto virtually any binocular or monocular microscope. The eyepieces do not need to be removed. The four sizes provided are 28mm, 30mm, 34mm and 35mm.



Eyepiece adapters

Macro Viewing Tube

This clear tube mounts onto the focusable lens and provides a solid platform for viewing macro objects such as insects or rocks.



Macro Viewing Tube

Flexible Gooseneck with Solid Stand

For more stability, the optional Gooseneck holds the Moticam in place at any position while the provided wire clips ensure that the camera's wires are held out of the way.



Flexible Gooseneck with Solid Stand

Biological & Stereo (B&S) Eyetube Adapter

Designed with our high-resolution solutions in mind, this adapter allows the camera to be mounted directly into the microscope's eyetube. This is especially useful for use with microscopes with over-sized eyepieces.



B&S Eyetube Adapter

USB2.0 PCI Card

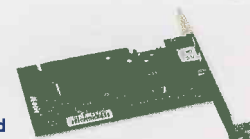
Provided in a package together with the Moticam 1000 and Moticam 2000, this PCI card can be installed into desktop PCs that are not equipped with a built-in high-speed USB2.0 interface.



USB2.0 PCI Card

IEEE1394 PCI Card

Provided in a package together with the Moticam 3000 and Moticam 5000, this PCI card can be installed into desktop PC's that are not equipped with a built-in IEEE1394 interface.



IEEE1394 PCI Card

Moticam Carrying Case

Ideal for storing or transporting your Moticam. The case is available in different sizes for different cameras.



Moticam Carrying Case

Motic Images Plus 2.0 Multi Language

This software provides a complete platform for digital microscopy. Packed with the latest and most powerful applications, Motic Images Plus 2.0 ML makes image quantification easy, accurate and efficient.

Multi Language

Gone are the days when all application software had to be used in English. This software allows the user to switch languages even while running the program.



No uninstall is necessary. Choose between English, German, French, Portuguese, Spanish, Italian, Korean, Arabic and Simplified Chinese.

Image Amalgamation

Want to find out differences between two images? Want to combine different images into one? The Amalgamation process allows the user to combine different images based on different heuristic processes.

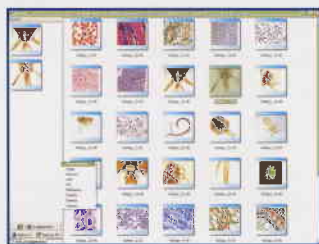
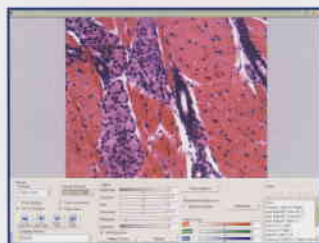


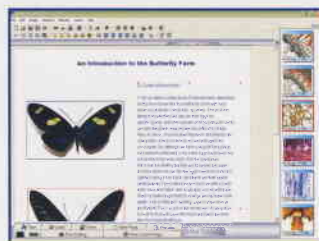
Image Capture

It goes without saying that microscope images can be captured in Still, Video or Time-Lapse formats. When using this software with our Moticam 1000 or Moticam 2000 cameras, all vital image quality parameters can be adjusted on the live image. Simply move the sliders for Brightness, Contrast, Red, Green, Blue and more; or let the software automatically set the appropriate settings for quick and simple operation. To ensure proper colour representation, a White Balance feature is integrated into the software. The control bars can be hidden to reveal a full-screen live image for demonstrations to friends, colleagues or students.



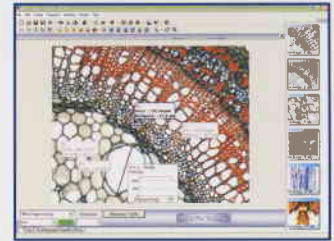
Motic Report

Motic Report allows the user to compile findings, projects and reports with images captured in a quick and easy way.



Accurate Measuring

With several different measuring tools to choose from and backed with Motic's certified calibration slides, measuring guesses are a thing of the past. Simply click and drag the mouse over the area you want to measure and when you are finished, simply export all the results to Excel.



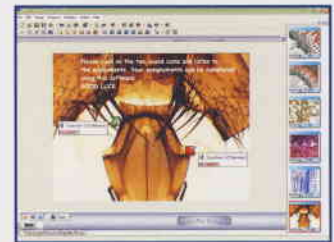
Automated Segmentation

A quick one-click solution, which automatically segments and counts the objects in the image. All results can be exported immediately to Excel for further statistical analysis.



Multi-Media Images

With Motic's proprietary .sfc file formats, Sound, Narration or even Examination Questions can be placed at any position into the image and saved at that position. Any viewer opening this image can then click on that Sound tag and listen.



Note: Opening of .sfc images requires Motic Programs. Please visit www.motic.com for a free copy of Motic See.

Image Manipulation

For further image analysis, different additional tools are provided such as Filtering, Paint, Text and Contrast/Brightness functions.



Moticam Specifications

Moticam	330	350	480
Image Device	1/3" CCD	1/4" CCD	1/3" CCD
Effective Pixels	X	640 x 480	752 x 582 (PAL)
Still Image Resolution	X	640 x 480	640 x 480
Analog Resolution	330TV Lines	X	480TV Lines
Max. Frame Rate (Digital)	X	10fps @ 640 x 480 30fps @ 320 x 480	10fps @ 640 x 480 30fps @ 320 x 480
Data Output	RCA	USB	USB/S-Video/RCA
Lens Mount	C-Mount	C-Mount	C-Mount
Model Options	PAL or NTSC	X	PAL or NTSC
White Balance	X	Software	Manual & Software
USB Standard	1.0/1.1	1.0/1.1	1.0/1.1
Power Supply	12V Universal Power Supply	Self Power from USB	12V Universal Power Supply
Accessories			
CCD Lens	● 12mm	● 8mm	● 12mm
Eyepiece Adapters	● 28, 30, 34 & 35mm	● 28, 30, 34 & 35mm	● 28, 30, 34 & 35mm
B&S Eyetube Adapter	X	X	X
Macro Viewing Tube	●	●	●
Calibration Slide	X	●	●
Motic Images Plus 2.0ML	X	●	●
Motic Images Advanced 3.2	X	X	X
Flexible Gooseneck	○	○	○
USB2.0 PCI Card	X	X	X
IEEE 1394 PCI Card	X	X	X
Carrying Case	○	○	○
Minimum System Requirements			
Processor	X	Pentium 2	Pentium 2
Unused HD space	X	300 MB	300 MB
RAM	X	64 MB	64 MB
Display Memory	X	16 MB	16 MB
Operating System	X	Windows 98SE/ME/2000/XP	Windows 98SE/ME/2000/XP

Guide : " X " = Not Available " ○ " = Optional Extra " ● " = Standard Equipment

1000	2000	3000	5000
1/2" CMOS	1/2" CMOS	1/2" CCD	2/3" CCD
1240 x 1024	1600 x 1200	2080 x 1542	2580 x 1944
1240 x 1024	1600 x 1280	2080 x 1542	2580 x 1944
X	X	X	X
10fps @ 1240 x 1024 30fps @ 640x 480	10fps @ 1600 x 1200 30fps @ 800 x 600	Color Depth Dependant	Color Depth Dependant
USB	USB	IEEE 1394	IEEE 1394
C-Mount	C-Mount	CS-Mount	CS-Mount
X	X	3000C with Peltier Cooling Device	5000C with Peltier Cooling Device
Software	Software	Software	Software
2.0	2.0	X	X
Self Power from USB	Self Power from USB	12V Universal Power Supply	12V Universal Power Supply
● 16mm	● 16mm	X	X
● 28, 30, 34 & 35mm	● 28, 30, 34 & 35mm	X	X
○	●	X	X
●	●	X	X
●	●	X	X
●	●	X	X
X	○	●	●
○	○	X	X
●	●	X	X
X	X	●	●
○	○	●	●
Pentium 3 1GHz	Pentium 3 1GHz	Pentium 3 1GHz	Pentium 3 1GHz
1 GB	1 GB	1 GB	1 GB
256 MB	256 MB	256 MB	256 MB
32 MB	32 MB	32 MB	32 MB
Windows 2000/XP	Windows 2000/XP	Windows 2000/XP	Windows 2000/XP

Motic Images Advanced 3.2

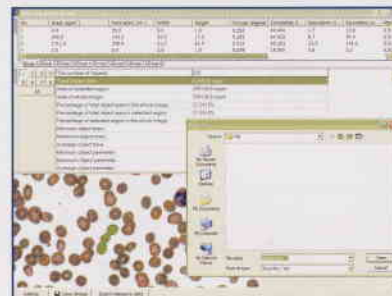
This even more powerful software package can be ordered as an option with the Moticam 2000 and is delivered standard with the Moticam 3000 and Moticam 5000 series. As a step into the more demanding realms of digital microscopy, this software package includes Motic's Images Assembly as well as Multi Focus as standard.

NOTE: This software is only available in English.

In addition to all of the features of the Motic Images Plus 2.0ML, this more advanced software contains many more professional image analysis tools. The most powerful are highlighted below. features as the Motic Images Plus 2.0ML and the following in addition:

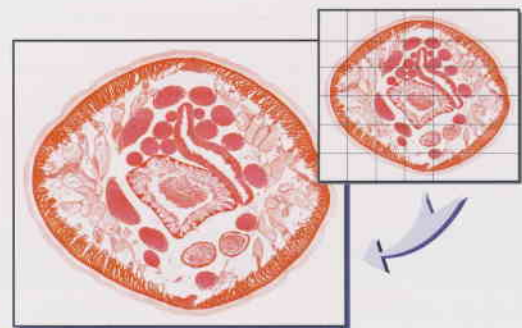
Manual Segmentation

- Users are able to segment images manually with thresholds for Red, Green, Blue and Grey.
- Single point segmentation is also possible with up to eight different color levels.
- Several filters such as Hi-Pass and Low-Pass as well as customizable options are available.
- Other functions included in this image analysis toolbox are:
 1. Object Grow
 2. Erode
 3. Fill-in Hole
 4. Find Edges
 5. Find Contours
 6. All gathered data are exportable at the click of a button.



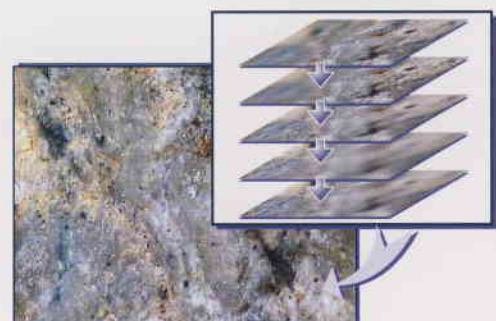
Motic Images Assembly

- When looking at objects with high magnification, the Field of View decreases. This feature will allow users to capture images at high Field of View as well as high magnification. Up to 100 images taken in one focal plane in a 10x10 format can be scanned by this software and assembled. All overlaps are recognized and individual images are automatically shifted into the right place.



Motic Images Multi Focus

- This feature allows the user to capture images at different focal depths. The software will scan each layer and assemble a new image with all maximum value pixels thereby creating a single image where all layers are in focus. The program even automatically adjusts and compensates for any image shift when using Stereo Microscopy.



Motic®

www.motic.com

Motic Incorporation Ltd. (HONG KONG)

Rm 2907-B, Windsor House, 311 Gloucester Road, Causeway Bay, Hong Kong
Tel: 852-2837 0888 Fax: 852-2882 2792

Motic Instruments Inc. (CANADA)

180-4320 Viking Way Richmond, B.C. V6V 2L4 Canada
Tel: 1-877-977 4717 Fax 1-604-303 9043

For inquiries in UK (UK)

Saracens House, 25 St. Margarets Green, Ipswich, IP4 2BN, Suffolk, UK
Tel: 44-(0)-14732 81909 Fax 44-(0)-14732 11508

Motic Deutschland GmbH (GERMANY)

Gewerbepark Spilburg, Spilburgstrasse 1 D-35578 Wetzlar Germany
Tel: 49-6441-210 010 Fax 49-6441-210 0122

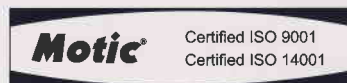
Motic Spain, S.L. (SPAIN)

Poligon Industrial Les Corts, Camí del Mig, 112 08349 Cabrea de Mar, Barcelona Spain
Tel: 34-93-756 6286 Fax 34-93-756 6287

Motic Incorporation Ltd. Copyright © 2002-2004. All Rights Reserved

Design Change: The manufacturer reserves the right to make changes in instrument design in accordance with scientific and mechanical progress, without notice and without obligation.

CE



Code No: SP010938B