OPTIKA®
ITALY

DIGITAL *microscopes and cameras*

○ DM SERIES - Biological digital microscopes page 217
○ SZM-D - Digital stereozoom microscope page 225
○ VIDEO AND PHOTO APPLICATIONS - Video and photo cameras page 229

Icons

 Monocular	 Magnification 400X	 X-LED² illuminator
 Binocular	 Magnification 1000X	 X-LED³ illuminator
 Trinocular	 Incident light	 X-LED⁸ illuminator
 Field number 16	 Transmitted light	 1W LED illuminator
 Field number 18	 Polarized light	 LED illuminator
 Field number 20	 Halogen lamp	 Automatic light control
 Field number 22	 Incandenscent lamp	 Infinity-corrected optics
 Field number 24	 Dichroic lamp	 Rechargeable battery
 Rotating head 360°	 USB connection	 Anti-fungus treatment

DM Series

Digital biological microscopes

DM Series

The OPTIKA digital microscopes DM are equipped with a camera which is integrated in the head of the microscope, as well as the traditional characteristics of quality and robustness.

The entire DM series, from models dedicated to teaching to those intended for laboratory use, is equipped with "plug & play" software. This series is the ideal solution for capturing images and video and transfer them to a PC.

DM-5	Digital Monocular microscope 480Kpixels (software included).
DM-5UP	Digital Monocular microscope 480Kpixels, USB powered (software included).
B-150DM	Digital monocular microscope 400x, 1.3Mp, double layer stage (software included).
B-150DMR	Digital monocular microscope 400x, 1.3Mp, double layer stage, with rechargeable batteries (software included).
B-150DB	Digital binocular microscope 1000x, 3.2Mp, double layer stage (software included).
B-150DBR	Digital binocular microscope 1000x, 3.2Mp, double layer stage, with rechargeable batteries (software included).

DM Series - Models

DM-5

1 | 16 | 360° | 400x | USB | LED

DM-5UP

1 | 16 | 400x | USB | LED

B-150DM

1 | 18 | 360° | 400x | 1WLED | USB

B-150DB

2 | 18 | 360° | 1000x | 1WLED | USB

DM Series - **DM-5**

The DM-5 is the "entry level" model of the DM series and it ideal for primary schools.
Its ease of use combined with high quality construction and first choice optical system, make the study of biology a pleasant experience.
The DM-5 is supplied with everything needed for immediate use without the need for additional accessories.

DM Series - DM-5

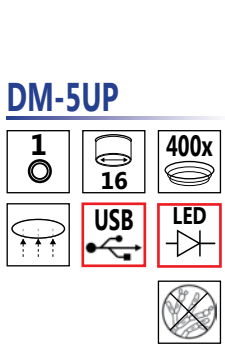
Head:	Digital, monocular, 360° rotating, 45° inclined
Eyepiece:	WF10x/16mm
Nosepiece:	Triple, reversed
Objectives:	Achromatic 4x (0.10), 10x (0.25), 40x (0.65)
Stage:	Rotating round stage dia. 90mm; moving range: 5mm; slide clips
Focusing:	Coarse and fine with different axis
Illumination:	White LED, non-rechargeable, with brightness control
Digital camera resolution:	640x480
Output:	2.0 USB port
Software:	OPMIAS (Optika Micro Image Analysis Software), for Windows XP/Vista/Win7, Win8, 32-64 bit
Packing:	Carton box with inner foam

DM Series - DM-5UP

Monocular digital microscope

Same as DM-5, but with illuminator powered by your PC through USB connection.

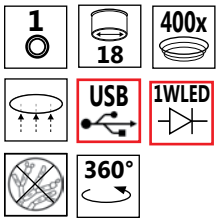
USB POWERED
OR EXTERNALLY POWERED



DM Series - **B-150DM / B-150DMR**

The microscopes B-150DM and B-150DB are built to meet the needs of secondary schools.
The integration of a digital camera, the quality of the optics and mechanics, and the rich equipment of these microscopes make them the best solution for the interactive training.
B-150DM and B-150BM are provided with everything necessary to allow immediate use without the need for additional accessories.

B-150DM



Head:	Digital, Monocular, 360° rotating, 45° inclined
Eyepiece:	WF10X/18mm
Nosepiece:	Quadruple
Objectives:	Achromatic 4x (0.10), 10x (0.25), 40x (0.65).
Working stage:	Double layer with mechanical sliding stage, 125x115mm, moving range: 50x30mm
Condenser:	1.25 N.A. Abbe type
Focusing system:	Coaxial coarse and fine, with focusing stop mechanism
Illumination:	1W White LED, non-rechargeable, with brightness control
Digital camera resolution:	1280x1024 pixels (1.3Mp)
Output:	2.0 USB port
Software:	OPTIKA Vision Lite for Windows XP/Vista, Win7, Win8, 32-64 bit
Packing:	Carton box with inner foam

DM Series - B-150DB / B-150DBR

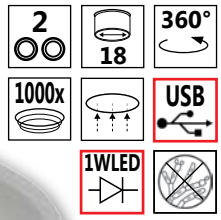
Head:	Digital, Binocular, 360° rotating, 30° inclined
Eyepiece:	WF10X/18mm
Nosepiece:	Quadruple
Objectives:	Achromatic 4x (0.10), 10x (0.25), 40x (0.65), 100x (1.25).
Working stage:	Double layer with mechanical sliding stage, 125x115mm, mov. range 50x30mm
Condenser:	1.25 N.A. Abbe type
Focusing system:	Coaxial coarse and fine, with focusing stop mechanism
Illumination:	1 watt white LED, non-rechargeable, with brightness control
Digital camera resolution:	2048x1536 pixels (3.14Mp)
Output:	2.0 USB port
Software:	OPTIKA Vision Lite for Windows XP/Vista, Win7, Win8, 32-64 bit
Packing:	Carton box with inner foam

B-150DB

R - Rechargeable battery

B-150DMR and B-150DBR comes with an internal rechargeable battery for use on field.

B-150DB



DM Series - Technical specifications

	DM-5	B-150DM	B-150DB
Resolution	640x480 pixels	1280x1024 pixels (1.3Mp)	2048x1536 pixels (3.14Mp)
Sensor	1/4"CMOS	1/3,2"CMOS	1/2,5"CMOS
Pixel size	7,9x7,9 µm	2,8x2,8 µm	2,2x2,2 µm
Resolution & Frame Rate	640x480 - 25 fps	1280x1024 - 15 fps	2048x1536 - 4 fps
		640x480 - 30 fps	1280x1024 - 8 fps
			640x480 - 30 fps
Sensitivity	2.0 V/Lux-sec	1.0 V/Lux-sec	1.0 V/Lux-sec
White Balance	Auto / Manual	Auto / Manual	Auto / Manual
S/N Ratio	≥50 dB	≥ 42 dB	≥ 40 dB
Dynamic Range	≥ 60 dB	≥ 71 dB	≥ 66 dB
Digital Port	USB 2.0	USB 2.0	USB 2.0
Imaging Software	OPMIAS	OPTIKA Vision Lite	OPTIKA Vision Lite
System Requirements	Operating system: Windows XP, Vista, Win7, Win8, 32-64 bit		

DM Series - Accessories

DM-5 - DM5UP

M-044	Eyepiece WF10x/16mm.
M-727	Achromatic objective 4x/0,10.
M-728	Achromatic objective 10x /0,25.
M-729	Achromatic objective 40x/0,65.
M-030	Dust cover type 1.

B-150DM - B-150DB

M-001	Eyepiece H5x.
M-002.1	Eyepiece WF10x/18mm.
M-003	Eyepiece WF16x/12mm.
M-004	Eyepiece with micrometer WF10x/18mm.
M-137	Objective Achromatic 4x/0,10.
M-138	Objective Achromatic 10x/0,25.
M-139	Objective Achromatic 20x/0,40.
M-141	Objective Achromatic 40x/0,65.
M-142	Objective Achromatic 60x/0,80.
M-143	Objective Achromatic 100x/1,25 (Oil).
M-031	Dust cover type 3.

15104 - Lens cleaner, 50ml

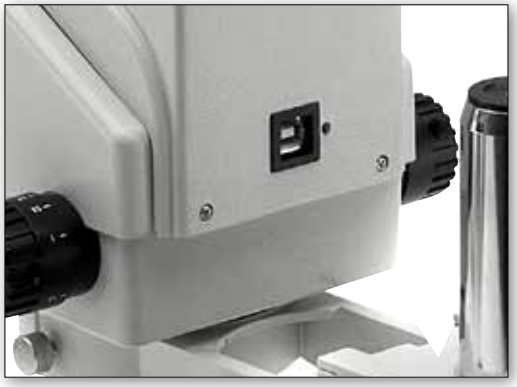
It cleans glass quickly and effectively,
without leaving residue or odor.
Ideal for precision lens or prism cleaning.

SZM-D

Digital stereozoom microscope

SZM-D

The stereomicroscopes of the SZM series are instruments specifically designed for laboratory and industry applications.
Their optical and mechanical qualities place them at the top of that sought-after category of appliances and the price/quality ratio is exceptionally good.
Sharing the same optical system consisting of binocular and trinocular heads with zoom objectives, the four models of the SZM series find their proper application wherever professional instruments are required at a particularly contained cost.
The numerous accessories provide an ample choice of possible configurations and extend the flexible use of the instruments.
SZM-D stereozoom microscope is our best option when an ease of use and a good quality for the image are required.
By using the built-in camera with its USB port the connection with the pc will be simple and quick.



SZM-D Model - Technical specifications

Model	Head	Objectives	Stand	Illumination
SZM-D	Binocular	0,7x.... 4,5x Zoom	Pillar stand	Incident and transmitted 12V/15W halogen with separated brightness controls

Technical specifications of the built-in camera

Resolution	1280 x 1024 pixels (1,3 Mpixels)
Sensor	CMOS 1/,3"
Pixel Size	5.2 µm x 5.2 µm
Imaging Area	6.67 mm x 5.33 mm
Frame Rate at Full Resolution	15 frames/sec
Frame Rate at 640x480	30 frames/sec
Optical Format	1/2"
Aspect Ratio	4:3
S/N Ratio	44 dB
Dynamic Range	71 dB
ADC	10 bit
Data Output (Uncompressed Video)	3x8 bit
Exposure Range	0-70 msec
Sensitivity	1,0V/Lux-second
C-Mount Lens Adapter	no
System Requirements	Widows XP/Vista, Win7, Win8, 32 & 64Bit , USB 2.0
Software	Optika Vision Lite, Optika view, TWAIN interface, several freeware for image elaboration
Capture Features	Continuous auto white balance, continuous auto exposure
Included with the camera	Optika Vision Lite package, 1.5 m USB cable.

SZM-D Model - **Accessories**

	SZM-D
ST-081	Eyepieces (pair) WF10x/20 mm.
ST-082	Eyepieces (pair) WF15x/15 mm.
ST-083	Eyepieces (pair) WF20x/10 mm.
ST-084	Micrometric eyepiece WF10x/20 mm.
ST-085	Additional lens 0,5x (w.d. 165mm).
ST-091	Additional lens 0,75x (w.d. 117mm).
ST-086	Additional lens 1,5x (w.d. 47mm).
ST-087	Additional lens 2x (w.d. 26mm).
ST-088	Polarising set (filters and rotating stage).
ST-040	Darkfield condenser.
ST-041	Sample clip.
ST-100	Hand moving stage.
ST-036	Eye cups (pair) type 2.
ST-012	White/black object-plate, type 2 dia. 95 mm.
ST-014	Glass stage, type 2, dia. 95 mm.
ST-038	Halogen bulb, 12V/15W.
ST-037	Halogen bulb, 12V/15W, with dichroic mirror.
ST-033	Dust cover type 13.

15104 - Lens cleaner, 50ml

It cleans glass quickly and effectively,
without leaving residue or odor.
Ideal for precision lens or prism cleaning.

VIDEO AND PHOTO APPLICATIONS

Video and photo cameras

Video and photo applications

A wide range of instruments fulfilling any requirement in the photo/video field. It has never been so easy to get impressive images from your microscope. Thanks to different resolutions, all digital cameras (to be used with PC or TV set) can meet the demands of either a professional user or people who are looking for an economic but valuable product.

Several models (OPTIKAM B2, Pro LT models, and pro Cool 5) are designed to be used on trinocular microscopes by using specific adapters (optional accessories). It will be easy to connect these instrument to any microscope, biological or stereo, by C-mount.

The models with optical eyepiece adapter are ready to be used (by means of one of the two eyepieces) on monocular and binocular microscopes too, both biological and stereo.

OPTIKAM Budget Series	USB cameras for general purpose (software included).
OPTIKAM Pro Series	High Performance USB cameras with advanced software package.
OPTIKA Pro HDMI	OPTIKAM Pro HDMI PC-TV camera (software included).
OPTIKAM Pro Cool	Very high-sensitive USB camera with cooled CCD (software included).
DIGI	Universal photo & video (1080p) camera (software included).
TB Series	Tablet PC with C-mount integrated camera (software included).
EDUCAM Series	Multimedia cameras.
VC Series	CCD videocameras for general purpose.

Video and photo applications - OPTIKAM BUDGET

OPTIKAM B05 - 4083.B05	Eyepiece Camera
Sensor	CMOS 1/4"
Resolution	640x480 pixels
Frame Rate	30 frames/sec
Optical Format	1/4"
Aspect Ratio	4:3
S/N Ratio	45 dB
Dynamic Range	60 dB
Sensitivity	1,9 V/Lux-second
C-Mount	No
Adapters for stereomicroscopes	30 and 30,5 mm diameter
Calibration slide	None
System Requirements	Windows XP/Vista, Win7, Win8, 32-64 bit, USB port 2.0
Software	Optika Vision Lite / OPTIKA MIPro
Capture Features	Continuous auto white balance, continuous auto exposure
Accessories included	1.5 m USB cable, installation manual, CD-Rom

OPTIKAM B1 - 4083.B1	C-mount and Eyepience Camera
Sensor	CMOS 1/3"
Resolution	1280 x 1024 pixels (1,3 Mpixels)
Frame Rate at Full Resolution	15 frames/sec
Frame Rate 640x480	55 frames/sec
Optical Format	1/3"
Aspect Ratio	4:3
S/N Ratio	44 dB
Dynamic Range	71 dB
Sensitivity	1,0 V/Lux-second
C-Mount:	Yes
Optical adapter	0,45x (for 23mm eyepiece tube)
Adapters for stereomicroscopes	30 and 30,5 mm diameter
Calibration slide	76x24mm micrometric calibration slide
System Requirements	Windows XP/Vista, Win7, Win8, 32-64 bit, USB port 2.0
Software	Optika Vision Lite / OPTIKA View
Capture Features	Continuous auto white balance, continuous auto exposure
Accessories included	1.8 m USB cable, installation manual, CD-Rom

OPTIKAM B2 - 4083.B2	C-mount Camera
Sensor	CMOS 1/3.2"
Resolution	1600 x 1200 pixels (2 Mpixels)
Frame Rate at Full Resolution	10 frames/sec
Frame Rate at 640x480	30 frames/sec
Optical Format	1/3,2"
Aspect Ratio	4:3
S/N Ratio	42,3 dB
Dynamic Range	71 dB
Sensitivity	1,0 V/Lux-second
C-Mount:	Yes
Optical adapter	None
Adapters for stereomicroscopes	None
Calibration slide	76x24mm micrometric calibration slide
System Requirements	Windows XP/Vista, Win7, Win8, 32-64 bit, USB port
Software	Optika Vision Lite / OPTIKA MIPro
Capture Features	Continuous auto white balance, continuous auto exposure
Accessories included	1.8 m USB cable, installation manual, CD-Rom

OPTIKAM B05

OPTIKAM B2

OPTIKAM B1

OPTIKAM B5

Special model designed for trinocular microscopes only.
This camera does not include any optical adapter for biological microscopes or stereomicroscopes.
Especially designed for heavy applications, the Optikam B-2 is very robust and does not need the installation of any driver in your computer.

Video and photo applications - OPTIKAM "Budget"

OPTIKAM B3 - 4083.B3	C-mount and Eyepiece Camera
Sensor	CMOS 1/2"
Resolution	2048 x 1536 pixels (3,14 Mpixels)
Frame Rate at Full Resolution	6,5 frames/sec
Frame Rate at 640x480	55 frames/sec
Optical Format	1/2"
Aspect Ratio	4:3
S/N Ratio	43 dB
Dynamic Range	61 dB
Sensitivity	1,0 V/Lux-second
C-Mount	Yes
Optical adapter	0,5x (for eyepiece tube)
Adapters for stereomicroscopes	30 and 30,5 mm diameter
Calibration slide	76x24mm micrometric calibration slide
System Requirements	Windows XP/Vista, Win7, Win8, 32-64 bit, USB port 2.0
Software	Optika Vision Lite / OPTIKA View
Capture Features	Continuous auto white balance, continuous auto exposure
Accessories included	1.8 m USB cable, installation manual, CD-Rom

OPTIKAM B5 - 4083.B5	C-mount and Eyepiece Camera
Sensor	CMOS 1/2,5"
Resolution	2592 x 1944 pixels (5 Mpixels)
Frame Rate at Full Resolution	7 frames/sec
Frame Rate at 640x480	46 frames/sec
Optical Format	1/2,5"
Aspect Ratio	4:3
S/N Ratio	38 dB
Dynamic Range	70,1 dB
Sensitivity	0,53 V/Lux-second
C-Mount	Yes
Optical adapter	0,45x (for eyepiece tube 23mm)
Adapters for stereomicroscopes	30 and 30,5 mm diameter
Calibration slide	76x24mm micrometric calibration slide
System Requirements	Windows XP/Vista, Win7, Win8, 32-64 bit, USB port 2.0
Software	Optika Vision Lite / OPTIKA View
Capture Features	Continuous auto white balance, continuous auto exposure
Accessories included	1.8 m USB cable, installation manual, CD-Rom

OPTIKAM B9 - 4083.B9	C-mount and Eyepiece Camera
Sensor	CMOS 1/2,3"
Resolution	3664 x 2740 pixels (10 Mpixels)
Frame Rate at Full Resolution	3 frames/sec
Frame Rate at Middle Resolution(1,3Mp)	25 frames/sec
Frame Rate at 640x480	30 frames/sec
Optical Format	1/2,3"
Aspect Ratio	4:3
S/N Ratio	40,5 dB
Dynamic Range	63 dB
Sensitivity	0,44 V/Lux-second
C-Mount	Yes
Optical adapter	0,45x (for 23mm eyepiece tube)
Adapters for stereomicroscopes	30 and 30,5 mm diameter
Calibration slide	76x24mm micrometric calibration slide
System Requirements	Windows XP/Vista, Win7, Win8, 32-64 bit, USB port 2.0
Software	Optika Vision Lite / OPTIKA View
Capture Features	Continuous auto white balance, continuous auto exposure
Accessories included	1.8 m USB cable, installation manual, CD-Rom

Video and photo applications - OPTIKAM Pro Series

Hi-Performance cameras with advanced software package

C-mount cameras for video and still-image capturing with high performances. These cameras are delivered with our complete OPTIKA VISION SOFTWARE PACKAGE.
LT versions do not include any eyepiece adapter.
Ideal for professional trinocular microscopes.

	OPTIKAM PRO 3LT 4083.11LT	OPTIKAM PRO 3 4083.11	OPTIKAM PRO 5LT 4083.12LT	OPTIKAM PRO 5 4083.12
Resolution	2048 x 1536 pixels (3.2 Mpixel)		2560 x 1920 (5.0 Mpixel)	
Sensor	CMOS 1/2"		CMOS 1/2,5"	
Pixel Size	3.2 µm x 3.2 µm		2.2 µm x 2.2 µm	
Image Area	6.55 mm x 4.92 mm		5.70 mm x 4.28 mm	
Frame Rate at Full Resolution	12 frames/sec		3 frames/sec	
Frame Rate at Half Resolution	24 frames/sec		12 frames/sec	
Optical Format	1/2"		1/2"	
Aspect Ratio	4:3		4:3	
S/N Ratio	43 dB max		43 dB max	
ADC	10 bit		10 bit	
Data Output (Uncompressed Video)	3x8 bit		3x8 bit	
Sensitivity	1.0 V/Lux-second		0.53 V/Lux-second	
System Requirements	Windows XP, Vista, Win7, Win8, 32-64bit, USB 2.0 port		Windows XP, Vista, Win7, Win8 32-64bit, USB 2.0 port	
Software	OPTIKA Vision Pro Plus, TWAIN interface, SDK		Optika Vision Pro, TWAIN interface, SDK	
Capture Features	Continuous auto white balance, continuous auto exposure, averaging, subsampling (decimation)		Continuous auto white balance, continuous auto exposure, averaging, subsampling (decimation)	
Optical adapter	None	0,45x with additional ring adapter for stereomicroscopes	None	0,45x with additional ring adapter for stereomicroscopes
Included with the camera	3 m USB cable, 76x24mm micrometric calibration slide, C-mount cap, box		3 m USB cable, 76x24mm micrometric calibration slide, C-mount cap, box	
Max exposure	1 sec		177 msec	
Max extended exposure	26 sec		428 msec	

Video and photo applications - OPTIKA® Pro HDMI

Optika Pro HDMI - High-performance Full HD camera

OPTIKA Pro HDMI is a full-fledged digital camera introduced by OPTIKA.
It features driver-less USB connection for PC, micro-SD card slot for video and still capture, and an HDMI output port that allows you to see a full HD Live View (up to 60 frames per second) of your sample on most displays or Tvs. Software for image acquisition, analysis and measurement is provided with the camera.
OPTIKA Pro HDMI represents the best solution for industry Quality Control environments, as well as for routine laboratory inspection.

Video and photo applications - OPTIKA® Pro HDMI

Optika Pro HDMI - 4083.13	C-mount and Eyepieces Camera
Sensor	1-2.8" Sony Cmos Sensor
Resolution	3264 x 1836 (6 megapixels)
Image Acquisition details	Truecolor, two high-speed FPGA chipsets
Key Features	On/Off. Image capture. Video Capture. Setup. Automatic White Balance. Zoom.
External Ports	HDMI , USB , MicroSD
MircoSD resolution	Images : 3264 x 1836 , Video : 1280 x 720
HDMI Resolution	1920 x 1080 , 60fps
USB Resolution	1920 x 1080 , 1280 x 720
USB Driver	Driver free
System requirements	HDMI , Windows XP , Vista , Win7 , Win8 , 32 / 64 bit
Software	Optika Vision Lite , Optika Isview
USB Capture features	Resolution. Brightness. contrast. Tonality. Saturation. Gamma. White Balance
HDMI features	7 programmable lines (vertical / horizontal). Black/white. Contrast. Sharpness. Saturation. Brightness. Gamma. Image mirror.
Power supply	12V 1000mA
C-mount	Yes
Optical Adapter	None
Adapters for stereomicroscopes	None
Calibration slide	76x24mm micrometric calibration slide.
Accessories included	2GB MicroSD (max 4GB supported). MicroSD reader. HDMI cable. USB cable. CDrom.

Video and photo applications - OPTIKAM Pro Cool

A new CCD cooled camera for fluorescence applications

* Scientific-grade CCD chip
* 5 Mega pixels resolution (2580x1944 pixels)
* 12 bit color RGB
* Peltier-cooled to 30° below room temperature
* Very long exposure time for fluorescence imaging
* Anti "amplifier glow" function for long exposure
* CNC aluminum alloy metal case

OPTIKAM Pro Cool 5 - 4083.CL5	CCD Cooled Camera
CCD chip manufacturer, model	Sony, ICX282AQ
CCD scan mode	Interline transfer
CCD size	2/3"
Pixels	3.4mm x 3.4mm
G sensitive	280 mV
Resolution	2580H x 1944V
Filter	RGB
C-mount	Yes
Frame Rate at Max Resolution	3 fps (2580x1944)
Frame Rate at middle Resolution	10 fps (1280x932)
Low-speed readout	Yes
A/D conversion	8/12 bit
Peltier cooling system	30°C below room temperature
Exposure control	Automatic, manual
Exposure time	0.1ms - 6 minutes
Anti "amplifier glow"	Yes
White balance	Automatic, manual
Parameter controls	Image size, brightness, gain, exposure time, white balance
Interface	USB2.0 / 480Mb/s
Dimensions	130mm x 111mm x 54mm
System Requirements	Windows XP / Vista / Win 7 / Win 8, 32-64bit, USB 2.0 port
Software	Optika View

Video and photo applications - DIGI

OPTIKA Microscopes is pleased to introduce a new model of digital camera, fitted with USB connection and AV output for HDTV or TV set with standard resolution. All you need to capture pictures and videos from your microscope or simply from the surroundings is in this 2-in-1 model.
The advantages of the DIGI camera are the possibility to record videos and to use it as a standard digital camera, for personal use.
The camera sensor has a resolution of 5MPixels (8Mpixels through interpolation), it is provided with 3X optical zoom and a very bright 2.4" LCD display.
The system also includes specific adapters that allow the use on all microscopes and stereomicroscopes models with diameter of the eyepiece holder of 23mm or 30mm. A complete software will allow you to process, file and work with the captured images.
The camera includes a 2GB SD memory card.

DIGI	Digital Photo and Video Camera
Sensor	5.0 MP 1/2.5" CCD Sensor
Resolution (PHOTO)	8Mp (3200x2400 pixels) 5Mp (2595x1944 pixels) 3Mp (2048x1536 pixels)
Resolution (VIDEO)	1440x1080 (HD 1080p, 30fps) 1280x720 (HD 720p, 60fps) 1280x720 (HD 720p, 30fps) 848x480 (480p, 60fps) 320x240 (QVGA, 30fps)
Lens	3x optical zoom lens
Digital zoom:	4x (2x in 1080p mode)
File format:	JPEG, MOV, WAV
Internal Memory:	32MB
External Memory:	2GB SD card included (up to 32GB SDHC)
LDC display:	2,4"
TV out:	HDTV Component Out, PAL/NTSC system supported
Interface:	USB 2.0
Voice Recorder:	Yes
Microphone:	Internal (stereo), mic jack
Speaker:	Yes
Nightshot:	Yes (both in still image and video modes)
E.I.S.:	Electronic Image Stabilization
C-Mount:	No
Optical adapter	10x (for eyepiece tube)
Adapters for stereomicroscopes	30,0mm diameter
Battery:	Li-Ion rechargeable
Remote Control:	Yes, IR transmission

DIGI

Video and photo applications - TB Series - Tablet PC with camera

"A 2 in1 solution in digital microscopy"
A Tablet PC with 10" LCD touch screen, in combination with 3Mp and 5Mp cameras;
an universal system which can be installed on every trinocular microscope.

TABLET TECHNICAL SPECIFICATIONS

	TB-3W	TB-5W
Model	Acer Iconia W510	
Operating System	Windows 8.1 32-bit	
Language	Multilanguages already installed	
Image capturing software	OPTIKA Vision lite	
CPU	Intel® Atom™ Z2760 (1MB Cache, 1.80 GHz Intel® Burst) , Dual core (2 Core)	
CPU speed	1,50 GHz	
Graphics Card	Intel® GMA 3650 LPDDR2	
Memory	Ram 2,048 GB LPDDR2	
LCD display	LED 10.1" IPS Multi Touch Screen	
LCD resolution	1366 x 768 , 16/9	
Storage	Hdd 64GB	
Network	Wireless IEEE 802.11a/b/g/n Bluetooth 4.0	
Input/output ports	Micro USB Microphone Micro SD card reader Micro HDMI Head-phone	
Control Buttons	Auto rotate off, volume control	
Battery Technology	Lithium-ion battery, 2x cell	
Battery capacity	3540 mAh, about 9 hours	
Max load	18 W	
Dimensions	Thikness 8,8 mm, Height 16,75 cm, Width 25,85 cm	
Weight	580 g	
Cables included	OTG cable, USB Cable	
Also included	Instruction manual, Optika Software CD, Cleaning Cloth	

CAMERA TECHNICAL SPECIFICATIONS

Digital camera resolution	3,14 MegaPixels	5,0 MegaPixels
Analog camera resolution	NO	NO
Signal output	USB 2.0	USB 2.0
Audio Signal	NO	NO
Sensor Size	1\2"	1\2,5"
Sensor technology	CMOS	CMOS
Image format	4\3	4\3
Full Image size	2048 x 1536	2592 x 1944
Pixel size	3,2 x 3,2 micron	2,2 x 2,2 micron
Frame rate full resolution	6,5 frames/sec (2048x1536)	7 frames/sec (2592 x 1944)
Frame rate other resolutions	28 frame/sec (1024x768) 55 frames/sec (640x480)	46 frames/sec (640x480)
Sensitivity	1,0 V/Lux-second (550 nm)	0,53 V/Lux-second (550 nm)
Signal / noise ratio	43 dB	38 dB
Dynamic range	61 dB	70.1 dB

Video and photo applications - EDUCAM® Series - Multimedia cameras

The EDUCAM® video camera is especially designed to meet the various requirements in the educational field. When it is connected to a professional monitor or simply to a TV set, EDUCAM® is able to carry out many different functions.
It can be used as an episcope, for the reproduction of
- texts, documents, photographs
- to enlarge small objects, insects, minerals
- for video-microscopy, connected to microscopes used in biology or to stereomicroscopes
- as an overhead projector, for the projection of drawings
- as a camera for teleconferences, assemblies, meetings
- as a camera for filming, with the help of a video recorder.

Its ultra-high sensitivity enables to record clearly even in low-light conditions.
The special lens enables you to focus from 0,76 cm, up to an infinite distance. An extremely sensitive microphone (only on Multimedia models), records the teacher's voice during the lesson, or sounds and noises from the surrounding area, that can be heard via the TV itself, or via a separate amplifying system.
The microphone can be switched off if required.
The special 50-or 65-cm flexible arm (12mm dia.) and the heavy weight of the base (approx. 2.7 Kg), make EDUCAM® versatile, sturdy and stable at the same time.
The CCD camera is placed on the end of a flexible arm that can be safely twisted in any position, even projecting from the base, without affecting the system stability. A special joint allows the head to rotate without damaging the wires inside the flexible arm. All models are equipped with an external power supply and a dual adapter for video-microscopy (for biological and stereo microscopes).
For the connection to a PC, a USB video grabber is available as option (see next page, CONV-USB video grabber).
In the model EDUCAM USB, the video grabber is built-in.

EDUCAM

	MULTIMEDIA 4083	MULTIMEDIA PRO 4083.1	STUDENT 4083.2	STUDENT PRO 4083.3	MIC 4083.5	USB 4083.4
CCD element	1/3"	1/3"	1/3"	1/3"	1/3"	1/3"
Resolution (TV lines)	420	420	420	420	420	420
Total pixels	298.000	298.000	298.000	298.000	298.000	298.000
Signal/noise ratio	>48 dB	>48 dB	>48 dB	>48 dB	>48 dB	>48 dB
Sensitivity (lux/F:1.2)	0.8lux/F1.2	0.8lux/F1.2	0.8lux/F1.2	0.8lux/F1.2	0.8lux/F1.2	0.8lux/F1.2
Electronic shutter	yes	yes	yes	yes	yes	yes
Automatic gain control	yes	yes	yes	yes	yes	yes
White balance (auto)	yes	yes	yes	yes	yes	yes
Video signal	PAL (NTSC opt.)	PAL (NTSC opt.)	PAL (NTSC opt.)	PAL (NTSC opt.)	PAL (NTSC opt.)	PAL (NTSC opt.)
USB output	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	yes
Digital resolution	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	640x480 pixels
Working distance	>0,76 cm	>0,76 cm	>0,76 cm	>0,76 cm	>0,76 cm	>0,76 cm
Objective	8 mm	8 mm	8 mm	8 mm	8 mm	8 mm
Magnification	> 90x	> 90x	> 90x	> 90x	> 90x	> 90x
Microphone	yes	yes	- - - - -	- - - - -	- - - - -	yes
Audio signal	analogic	analogic	- - - - -	- - - - -	- - - - -	analogic
Voltage	15Vdc	15Vdc	12Vdc	12Vdc	12Vdc	15Vdc
Power adapter 230/12Vdc	included	included	included	included	included	included
Flexible arm length	50 cm	65 cm	50 cm	65 cm	- - - - -	65 cm
Base diameter	17 cm	17 cm	17 cm	17 cm	- - - - -	17 cm
Weight	3,4 Kg	3,5 Kg	3,3 Kg	3,4 Kg	0,4 Kg	3,5 Kg
Microscope adapters	included	included	included	included	included	included
System Requirements						Windows XP, Vista, Win 7, Win 8 32-64 Bit, USB 2.0 port

Video and photo applications - VC Series - CCD Cameras

VC-01

VC-01
VC-04

VC-02
VC-03

CONV-USB

VC-05

Video and photo applications - VC Series - CCD Cameras

Videomicroscopy system composed by a colour CCD TV camera, complete with Bio & Stereo Microscope adapter tube, integrated power supply unit, cables and manuals.

VC-01	Videomicroscopy system
Sensor	CCD SONY sensor 1/3"
Horizontal Resolution	420 TV lines (PAL)
Picture elements	500[H]x582[V]
Video output	BNC VBS 1.0Vp-p, 75 Ohm
C-Mount	C/CS
Sensitivity	0.5lux/F=1.2
Auto white balance	Yes
Auto gain control	Yes
Load current	150mA
Dimension	60x50x145mm - Weight 400g
Operating temperature	-10° to + 50°

VC-04	Videomicroscopy system
Sensor	CCD SONY sensor 1/3"
Horizontal Resolution	480 TV lines (PAL)
Picture elements	752[H]x582[V]
Video output	BNC VBS 1.0Vp-p, 75 Ohm
C-Mount	C/CS
Sensitivity	0.8lux/F=1.2
Auto white balance	Yes
Auto gain control	Yes
Load current	150mA
Dimension	60x50x145mm - Weight 400g
Operating temperature	-10° to + 50°

Colour CCD TV camera for C-Mount connection, complete with cables, SCART adapter & manual.

VC-02	Videomicroscopy system
Sensor	CCD SONY sensor 1/3"
Horizontal Resolution	420 TV lines (PAL)
Picture elements	500[H]x582[V]
Video output	BNC VBS 1.0Vp-p, 75 Ohm
C-Mount	C/CS
Sensitivity	0.5lux/F=1.2
Auto white balance	Yes
Auto gain control	Yes
Load current	150mA
Dimension	60x50x145mm - Weight 400g
Operating temperature	-10° to + 50°

VC-03	Videomicroscopy system
Sensor	CCD SONY sensor 1/3"
Horizontal Resolution	480 TV lines (PAL)
Picture elements	752[H]x582[V]
Video output	BNC VBS 1.0Vp-p, 75 Ohm
C-Mount	C/CS
Sensitivity	0.8lux/F=1.2
Auto white balance	Yes
Auto gain control	Yes
Load current	150mA
Dimension	60x50x145mm - Weight 400g
Operating temperature	-10° to + 50°

VC-05 Eyepiece CCD camera

Simple eyepiece camera with CCD sensor. 340 TV Lines (PAL).

CONV-USB Video Grabber

Analogic to Digital signal converter for PC.

Real time video capture from camcorder, VCR or camera. User friendly software easily stores and manages images & videos. Real time/full size Video capture window. The CONV-USB video grabber comes with a CD with drivers for Windows XP, Vista, Win7, Win8, 32-64bit.

Adapters chart - BUDGET Series

	With ADAPTER	With ADAPTER	With NO ADAPTER
	OPTIKAM B05	OPTIKAM B1 B3 B5 B9	OPTIKAM B2
Biological microscopes			
B-20 - SFC-3A - BP-20 - M-100FL (Monocular head)	READY TO USE	READY TO USE	M-114
B-50 (Monocular head)	READY TO USE	READY TO USE	M-114
B-150 (Monocular and binocular head)	READY TO USE	READY TO USE	M-114
B-191 (Monocular head)	READY TO USE	READY TO USE	M-114
B-192 (Binocular head)	READY TO USE	READY TO USE	M-114
B-193 (Trinocular head)	READY TO USE	READY TO USE	M-114
B-292 (Binocular head)	READY TO USE	READY TO USE	M-114
B-293 (Trinocular head)	READY TO USE	READY TO USE	M-114
B-382 (Binocular head)	READY TO USE	READY TO USE	M-114
B-383 (Trinocular head)	READY TO USE	READY TO USE	M-114
B-500 (Binocular head)	READY TO USE	READY TO USE	M-114 + M-113.1
B-500 (Trinocular head)	M-699	M-699	M-620.1
B-500 ERGO (Binocular head)	READY TO USE	READY TO USE	M-114 + M-113.1
B-500 ERGO (For Trinocular connection)	M-775.1	M-775.1	M-775.1 + M-114
B-500Ti-* (Multihead) for Binocular head	READY TO USE	READY TO USE	M-114 + M-113.1
B-500Ti-* (Multihead) for Trinocular head	READY TO USE	READY TO USE	M-778
B-800 (Trinocular head)	M-699	M-699	M-620.1
B-1000 (Trinocular head)	M-699	M-699	M-620.1
XDS-2 (Trinocular head)	READY TO USE	READY TO USE	M-778
XDS-3 (Trinocular head)	M-790	M-790	M-789
Stereomicroscopes			
STX (Binocular head)	READY TO USE	READY TO USE	M-114
MS-2 (Binocular head)	READY TO USE	READY TO USE	M-114
S-10-20-30-40-45-50 (Binocular head)	M-113.2	READY TO USE	M-114 + M-113.2
LAB-10 LAB-20 (Binocular head)	READY TO USE	READY TO USE	M-114
SZM (Binocular head)	READY TO USE	READY TO USE	M-114
SZM (Trinocular head)	READY TO USE	READY TO USE	ST-090
SZN (Binocular head)	READY TO USE	READY TO USE	M-114
SZN (Trinocular head)	READY TO USE	READY TO USE	ST-147.1
SZP (Binocular head)	READY TO USE	READY TO USE	ST-175 + M-113.1
SZP (For Trinocular connection)	ST-170	ST-170	ST-170 + ST-175
SZM-SMD (Trinocular head)	READY TO USE	READY TO USE	ST-090
SZM-GEM-1 (Binocular head)	READY TO USE	READY TO USE	M-114
SZM-GEM-2 (Trinocular head)	READY TO USE	READY TO USE	ST-090
OPTIGEM-3 (Binocular head)	READY TO USE	READY TO USE	M-114
OPTIGEM-4 (Trinocular head)	READY TO USE	READY TO USE	ST-147.1
OPTIGEM-1 (Binocular head)	READY TO USE	READY TO USE	M-114
OPTIGEM-2 (Trinocular head)	READY TO USE	READY TO USE	ST-090
XC-100L (Monocular head)	READY TO USE	READY TO USE	M-114
XZ-1 (Monocular head)	READY TO USE	READY TO USE	M-114
XZ-2 (Binocular head)	READY TO USE	READY TO USE	M-114

Adapters chart - TABLET PC and OPTIKAM Pro Series

	With ADAPTER TB-3W or TB-5W Tablet	With ADAPTER OPTIKAM PRO3 or PRO5	With NO ADAPTER OPTIKAM PRO3 or PRO5 LT
Biological microscopes	Only for TRINOPORT		Only for "c" mount - Trino microscopes
B-20 - SFC-3A - BP-20 - M-100FL (Monocular head)	NO	READY TO USE	NO
B-50 (Monocular head)	NO	READY TO USE	NO
B-150 (Monocular and binocular head)	NO	READY TO USE	NO
B-191 (Monocular head)	NO	READY TO USE	NO
B-192 (Binocular head)	NO	READY TO USE	NO
B-193 (Trinocular head)	READY TO USE – FREE TO MOVE 360 DEGREE	READY TO USE	M-114
B-292 (Binocular head)	NO	READY TO USE	NO
B-293 (Trinocular head)	READY TO USE – FREE TO MOVE 360 DEGREE	READY TO USE	M-114
B-382 (Binocular head)	NO	READY TO USE	NO
B-383 (Trinocular head)	READY TO USE	READY TO USE	M-114
B-500 (Binocular head)	NO	READY TO USE	NO
B-500 (Trinocular head)	M-699	M-699	M-620.1
B-500 ERGO (Binocular head)	NO	READY TO USE	NO
B-500 ERGO (For Trinocular connection)	M-775.1	M-775.1	M-775.1 + M-114
B-500Ti-* (Multihead) for Binocular head	NO	READY TO USE	NO
B-500Ti-* (Multihead) for Trinocular head	READY TO USE – FREE TO MOVE 360 DEGREE	READY TO USE	M-778
B-800 (Trinocular head)	M-699	M-699	M-620.1
B-1000 (Trinocular head)	M-699	M-699	M-620.1
XDS-2 (Trinocular head)	READY TO USE – FREE TO MOVE 360 DEGREE	READY TO USE	M-778
XDS-3 (Trinocular head)	M-790	M-790	M-789.1
Stereomicroscopes			
STX (Binocular head)	NO	READY TO USE	NO
MS-2 (Binocular head)	NO	READY TO USE	NO
S-10-20-30-40-45-50 (Binocular head)	NO	M-113.2	NO
LAB-10 LAB-20 (Binocular head)	NO	READY TO USE	NO
SZM (Binocular head)	NO	READY TO USE	NO
SZM (Trinocular head)	READY TO USE – FREE TO MOVE 360 DEGREE	READY TO USE	ST-090.1
SZN (Binocular head)	NO	READY TO USE	NO
SZN (Trinocular head)	READY TO USE – FREE TO MOVE 360 DEGREE	READY TO USE	ST-147.1
SZP (Binocular head)	NO	READY TO USE	NO
SZP (For Trinocular connection)	ST-170	ST-170	ST-170 + ST-175
SZM-SMD (Trinocular head)	READY TO USE – FREE TO MOVE 360 DEGREE	READY TO USE	ST-090
SZM-GEM-1 (Binocular head)	NO	READY TO USE	NO
SZM-GEM-2 (Trinocular head)	NOT SUGGESTED	READY TO USE	ST-090
OPTIGEM-3 (Binocular head)	NO	READY TO USE	NO
OPTIGEM-4 (Trinocular head)	NOT SUGGESTED	READY TO USE	ST-147.1
OPTIGEM-1 (Binocular head)	NO	READY TO USE	NO
OPTIGEM-2 (Trinocular head)	NOT SUGGESTED	READY TO USE	ST-090
XC-100L (Monocular head)	NO	READY TO USE	NO
XZ-1 (Monocular head)	NO	READY TO USE	NO
XZ-2 (Binocular head)	NO	READY TO USE	NO

Adapters chart - PRO Cool 5 & PRO HDMI & DIGI

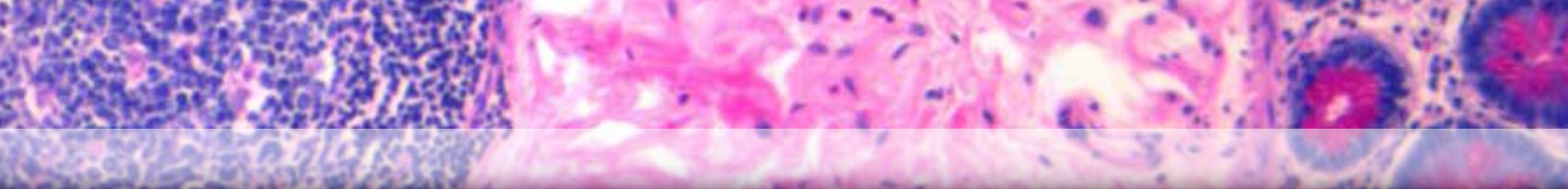
	With NO ADAPTER	With NO ADAPTER	With ADAPTER
	OPTIKAM PRO COOL 5	OPTIKAM Pro HDMI	DIGI
Biological microscopes			
B-20 - SFC-3A - BP-20 - M-100FL (Monocular head)	M-116	M-114	READY TO USE
B-50 (Monocular head)	M-116	M-114	READY TO USE
B-150 (Monocular and binocular head)	M-116	M-114	READY TO USE
B-191 (Monocular head)	M-116	M-114	READY TO USE
B-192 (Binocular head)	M-116	M-114	READY TO USE
B-193 (Trinocular head)	M-116	M-114	READY TO USE
B-292 (Binocular head)	M-116	M-114	READY TO USE
B-293 (Trinocular head)	M-116	M-114	READY TO USE
B-382 (Binocular head)	M-116	M-114	READY TO USE
B-383 (Trinocular head)	M-116	M-114	READY TO USE
B-500 (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
B-500 (Trinocular head)	M-699 + M-116	M-620.1	M-699
B-500 ERGO (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
B-500 ERGO (For Trinocular connection)	M-775.1 + M-116	M-775.1 + M-114	M-775.1
B-500Ti-* (Multihead) for Binocular head	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
B-500Ti-* (Multihead) for Trinocular head	M-116	M-114	READY TO USE
B-800 (Trinocular head)	M-699 + M-116	M-699 + M-114	M-699
B-1000 (Trinocular head)	M-699 + M-116	M-699 + M-114	M-699
XDS-2 (Trinocular head)	M-116	M-114	READY TO USE
XDS-3 (Trinocular head)	M-790 + M-116	M-789.1	M-790
Stereomicroscopes			
STX (Binocular head)	NO	NO	READY TO USE
MS-2 (Binocular head)	M-116	M-114	READY TO USE
S-10-20-30-40-45-50 (Binocular head)	M-116 + M-113.2	M-114 + M-113.2	M-113.2
LAB-10 LAB-20 (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
SZM (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
SZM (Trinocular head)	M-116	M-114	READY TO USE
SZN (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
SZN (Trinocular head)	M-116	ST-147.1	READY TO USE
SZP (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
SZP (For Trinocular connection)	ST-170 + M-116	ST-170 + M-114	ST-170
SZM-SMD (Trinocular head)	M-116	M-114	READY TO USE
SZM-GEM-1 (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
SZM-GEM-2 (Trinocular head)	M-116	M-114	READY TO USE
OPTIGEM-3 (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
OPTIGEM-4 (Trinocular head)	M-116	ST-147.1	READY TO USE
OPTIGEM-1 (Binocular head)	M-116 + M-113.1	M-114 + M-113.1	READY TO USE
OPTIGEM-2 (Trinocular head)	M-116	M-114	READY TO USE
XC-100L (Monocular head)	M-116	M-114	READY TO USE
XZ-1 (Monocular head)	M-116	M-114	READY TO USE
XZ-2 (Binocular head)	M-116	M-114	READY TO USE

Adapters chart - VC Series & EDUCAM

	With NO ADAPTER	With ADAPTER	With ADAPTER
	VC-02 or VC-03	VC-01 or VC-04	EDUCAM
Biological microscopes	Only for "c" mount - Trino microscopes		
B-20 - SFC-3A - BP-20 - M-100FL (Monocular head)	NO	READY TO USE	READY TO USE
B-50 (Monocular head)	NO	READY TO USE	READY TO USE
B-150 (Monocular and binocular head)	NO	READY TO USE	READY TO USE
B-191 (Monocular head)	NO	READY TO USE	READY TO USE
B-192 (Binocular head)	NO	READY TO USE	READY TO USE
B-193 (Trinocular head)	M-114	READY TO USE	READY TO USE
B-292 (Binocular head)	NO	READY TO USE	READY TO USE
B-293 (Trinocular head)	M-114	READY TO USE	READY TO USE
B-382 (Binocular head)	NO	READY TO USE	READY TO USE
B-383 (Trinocular head)	M-114	READY TO USE	READY TO USE
B-500 (Binocular head)	NO	READY TO USE	READY TO USE
B-500 (Trinocular head)	M-620	M-699	M-699
B-500 ERGO (Binocular head)	NO	READY TO USE	READY TO USE
B-500 ERGO (For Trinocular connection)	M-775.1 + M-114	M-775.1	M-775.1
B-500Ti-* (Multihead) for Binocular head	NO	READY TO USE	READY TO USE
B-500Ti-* (Multihead) for Trinocular head	M-778	READY TO USE	READY TO USE
B-800 (Trinocular head)	M-620	M-699	M-699
B-1000 (Trinocular head)	M-620	M-699	M-699
XDS-2 (Trinocular head)	M-778	READY TO USE	READY TO USE
XDS-3 (Trinocular head)	M-789	M-790	M-790
Stereomicroscopes			
STX (Binocular head)	NO	READY TO USE	READY TO USE
MS-2 (Binocular head)	NO	READY TO USE	READY TO USE
S-10-20-30-40-45-50 (Binocular head)	NO	M-113.2	M-113.2
LAB-10 LAB-20 (Binocular head)	NO	READY TO USE	READY TO USE
SZM (Binocular head)	NO	READY TO USE	READY TO USE
SZM (Trinocular head)	ST-090	READY TO USE	READY TO USE
SZN (Binocular head)	NO	READY TO USE	READY TO USE
SZN (Trinocular head)	ST-147	READY TO USE	READY TO USE
SZP (Binocular head)	NO	READY TO USE	READY TO USE
SZP (For Trinocular connection)	ST-170 + ST-174	ST-170	ST-170
SZM-SMD (Trinocular head)	ST-090	READY TO USE	READY TO USE
SZM-GEM-1 (Binocular head)	NO	READY TO USE	READY TO USE
SZM-GEM-2 (Trinocular head)	ST-090	READY TO USE	READY TO USE
OPTIGEM-3 (Binocular head)	NO	READY TO USE	READY TO USE
OPTIGEM-4 (Trinocular head)	ST-147	READY TO USE	READY TO USE
OPTIGEM-1 (Binocular head)	NO	READY TO USE	READY TO USE
OPTIGEM-2 (Trinocular head)	ST-090	READY TO USE	READY TO USE
XC-100L (Monocular head)	NO	READY TO USE	READY TO USE
XZ-1 (Monocular head)	NO	READY TO USE	READY TO USE
XZ-2 (Binocular head)	NO	READY TO USE	READY TO USE

Adapters chart - REFLEX CAMERAS

	APS Sensor + T/2 BOUGHT BY CUSTOMER	FULL Frame / 35mm SRL Cameras + T/2 BOUGHT BY CUSTOMER	MIRROR-LESS + T/2 BOUGHT BY CUSTOMER
Biological microscopes			
B-20 - SFC-3A - BP-20 - M-100FL (Monocular head)	M-173	M-173	M-173
B-50 (Monocular head)	M-173	M-173	M-173
B-150 (Monocular and binocular head)	M-173	M-173	M-173
B-191 (Monocular head)	M-173	M-173	M-173
B-192 (Binocular head)	M-173	M-173	M-173
B-193 (Trinocular head)	M-173	M-173	M-173
B-292 (Binocular head)	M-173	M-173	M-173
B-293 (Trinocular head)	M-173	M-173	M-173
B-382 (Binocular head)	M-173	M-173	M-173
B-383 (Trinocular head)	M-173	M-173	M-173
B-500 (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
B-500 (Trinocular head)	M-699 + M-173	M-619	M-699 + M-173
B-500 ERGO (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
B-500 ERGO (For Trinocular connection)	M-775.1 + M-173	M-775.1 + M-777	M-775.1 + M-173
B-500Ti-* (Multihead) for Binocular head	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
B-500Ti-* (Multihead) for Trinocular head	M-173	M-777	M-173
B-800 (Trinocular head)	M-699 + M-173	M-699 + M-173	M-699 + M-173
B-1000 (Trinocular head)	M-699 + M-173	M-699 + M-173	M-699 + M-173
XDS-2 (Trinocular head)	M-173	M-777	M-173
XDS-3 (Trinocular head)	M-790+M-173	M-788	M-790 + M-173
Stereomicroscopes			
STX (Binocular head)	M-173	M-173	M-173
MS-2 (Binocular head)	M-173	M-173	M-173
S-10-20-30-40-45-50 (Binocular head)	M-173 + M-113.2	M-173 + M-113.2	M-173 + M-113.2
LAB-10 LAB-20 (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
SZM (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
SZM (Trinocular head)	M-173 + M-113.1	ST-089	M-173 + M-113.1
SZN (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
SZN (Trinocular head)	M-173 + M-113.1	ST-146	M-173 + M-113.1
SZP (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
SZP (For Trinocular connection)	ST-170 + M-173	ST-170 + ST-173	ST-170 + M-173
SZM-SMD (Trinocular head)	M-173 + M-113.1	ST-089	M-173 + M-113.1
SZM-GEM-1 (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
SZM-GEM-2 (Trinocular head)	M-173 + M-113.1	ST-089	M-173 + M-113.1
OPTIGEM-3 (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
OPTIGEM-4 (Trinocular head)	M-173 + M-113.1	ST-146	M-173 + M-113.1
OPTIGEM-1 (Binocular head)	M-173 + M-113.1	M-173 + M-113.1	M-173 + M-113.1
OPTIGEM-2 (Trinocular head)	M-173 + M-113.1	ST-089	M-173 + M-113.1
XC-100L (Monocular head)	M-173	M-173	M-173
XZ-1 (Monocular head)	M-173	M-173	M-173
XZ-2 (Binocular head)	M-173	M-173	M-173

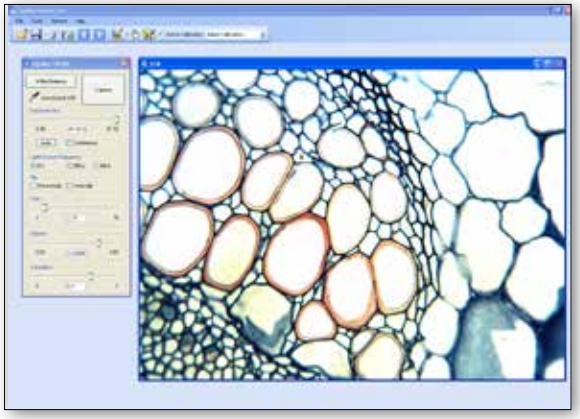


Video and photo applications - SOFTWARE SUITE

OPTIKA VISION® LITE is a software developed by OPTIKA® Microscopes with the main purpose to be a handy and simple tool for our customers using our OPTIKAMS and other digital microscope cameras. It has a simple user interface and can be used for image acquisition, line measurements and documentation. It is available in seven languages: English, Italian, French, Spanish, German, Swedish and Polish.

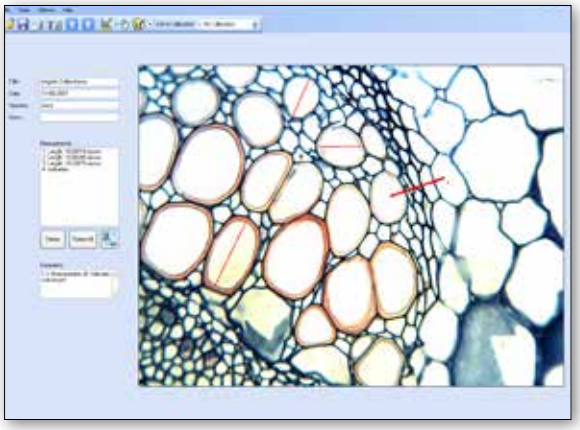
Image and video Acquisition

You can capture still images using a live preview that allows to precisely focus your image and change image parameters in order to have a perfect final result.
The image can be saved separately in BMP, JPG or TIFF formats.
It is also possible to import saved images from other sources.
Moreover:
- Image stacks acquisition (adjustable time steps)
- Square or round grid on live preview
- Video acquisition function included.



Measurements

Linear in-scale measurements can be made in any unit you like, using a simple calibration and measurement tool.
The data can be exported to a spreadsheet document for further elaboration.
There is also the possibility to indicate special objects in the image and to write comments.



Documentation

A report can be generated simply by printing the document on a normal printer or to a PDF. The document can be personalized with your own logo.

Video and photo applications - SOFTWARE SUITE

OPTIKA VISION® PRO is a new generation of microscope image analysis instruments, especially developed for our Optikam Pro series, which contains various tools for processing and analysis of digital microscope images. It includes powerful tools for image capturing, adjusting, operating and measuring. You have also the possibility to create your own database for easy organisation and storage of your images.

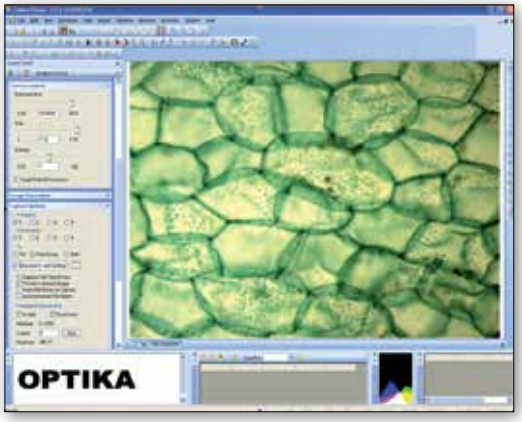
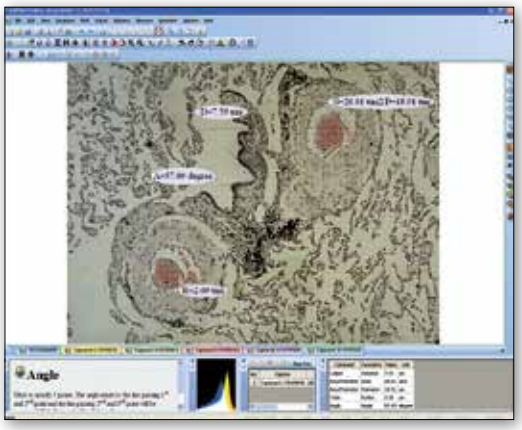


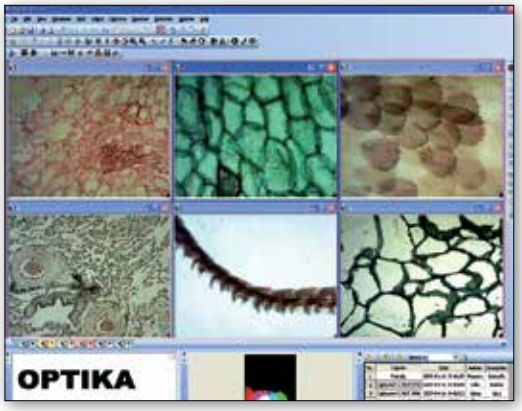
Image Acquisition

Optika Vision® Pro allows still image acquisition with several possibilities to control the image output according to your needs. There are functions such as white balance, automatic exposure, frame average, sub-sampling, hue, saturation and intensity controls, to mention a few.



Post Elaboration and Measurements

Optika Vision® Pro also offers the possibility to make various types of enhancements and adjustments of the captured image and calibrated measurements of lines, angles and areas. You can also perform manual counting and measure the light density of your acquired image.



Organize your work

For easy storage and fast upload you can organize your images into a database where it is possible to search for the images using keywords. In Optika Vision® Pro you can also arrange images into groups in order to combine them calculate the average or create a multi-focus composition.

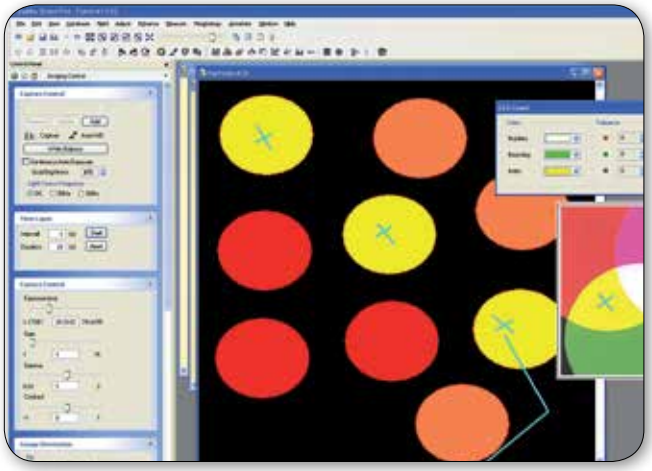
Video and photo applications - SOFTWARE SUITE

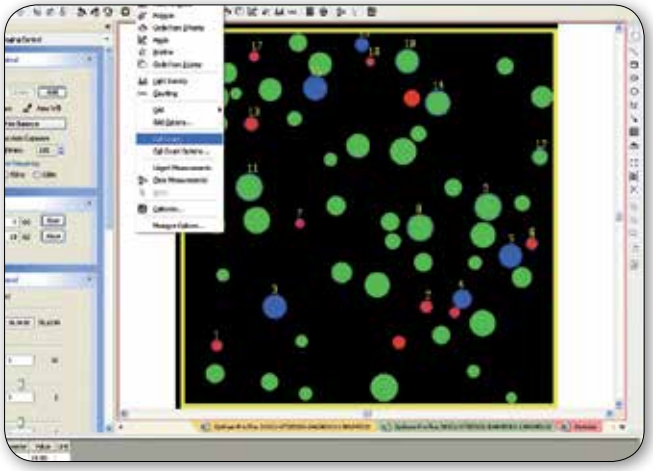
OPTIKA VISION® PRO PLUS is a software version just for your PRO3 camera which, having a powered internal clock, allows a faster frame rate and additional useful functions such as:

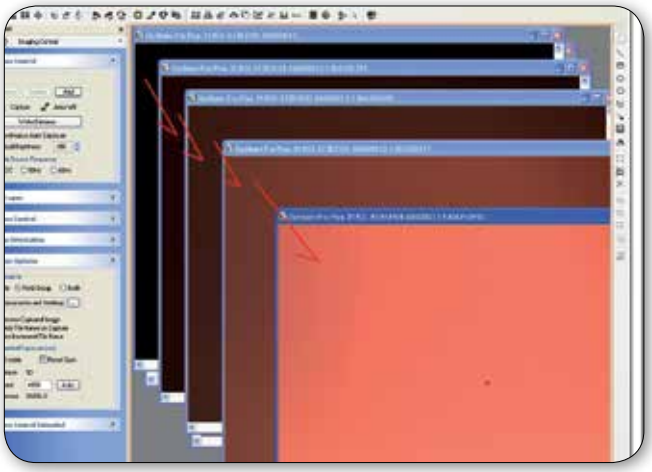
- exposure time up to 1000msec.
- snap exposure time up to 26 sec, very useful when the light source is weak.
- automatic live image brightness on the screen.

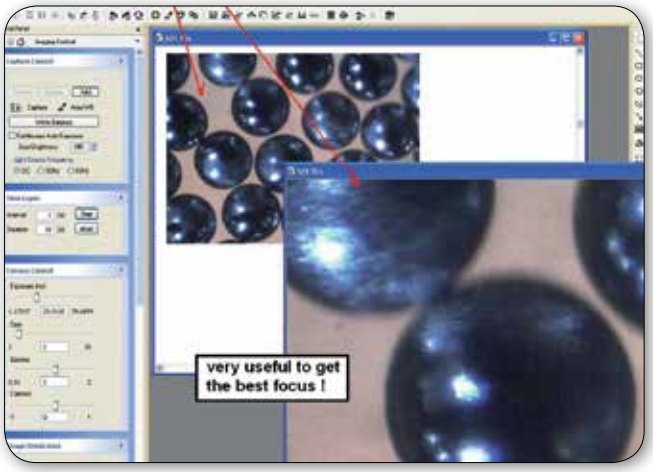
and furthermore :

- a simple to use live zoom bar, very helpful to get the better focusing point.
- automatic cells counting (based on RGB colours)
- direct measurement on live view







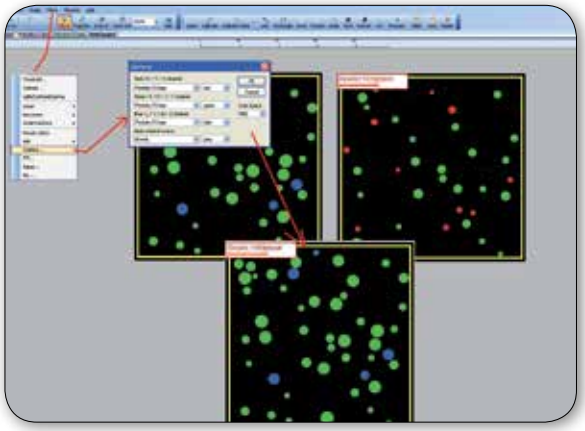


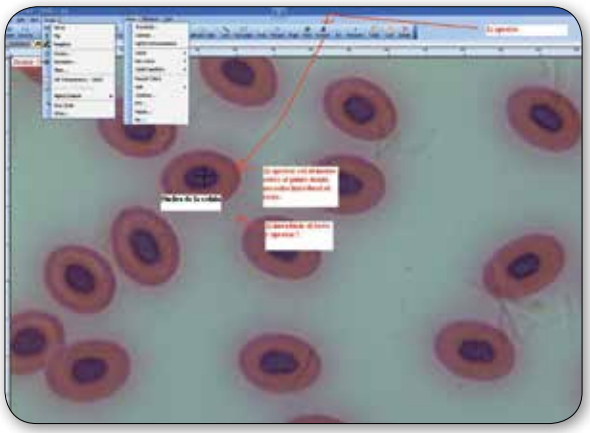
Video and photo applications - SOFTWARE SUITE

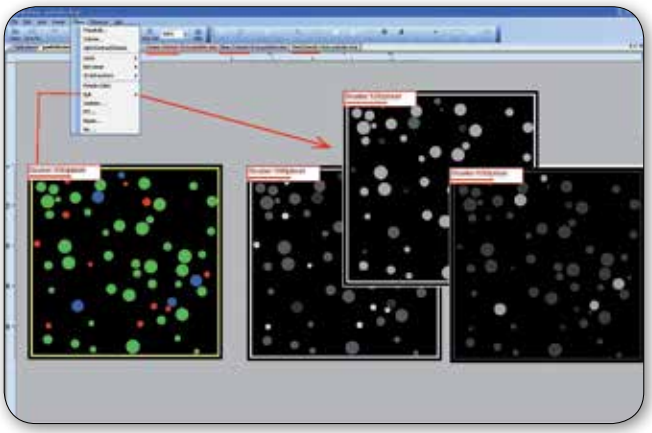
OPTIKA VIEW is a new generation of microscope image analysis instruments, especially developed for our Optikam Budget and Pro Cool series, which contains various tools for processing and analysis of digital microscope images. It includes powerful tools for image capturing, adjusting, operating and measuring.

Image Acquisition

Optika View allows still image acquisition with several possibilities to control the image output according to your needs. There are functions such as white balance, automatic exposure, frame average, sub-sampling, hue, saturation and intensity controls, to mention a few.







OPTIKA - SOFTWARE SUITE

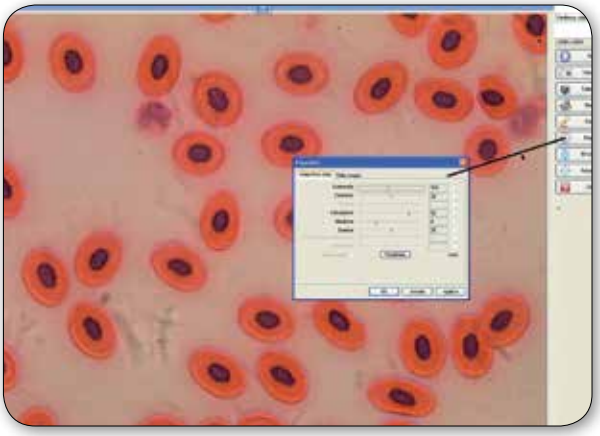
OPTIKA MIPro

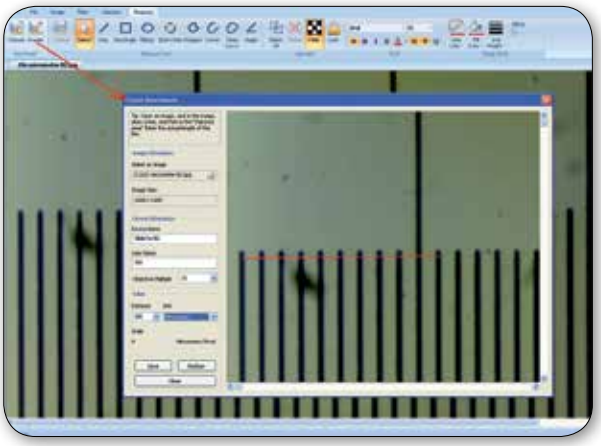
OPTIKA MiPro is a new generation of microscope image analysis instruments, especially developed for our Optikam B0.5 and B2 cameras, which contains

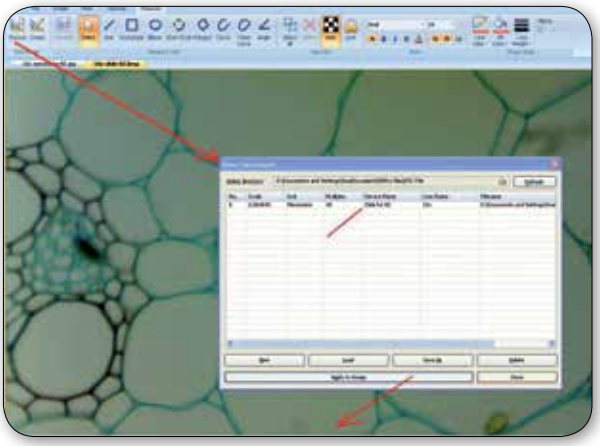
simple tools for processing and analysis of digital images, It includes powerful tools for image capturing, adjusting, operating and measuring.

Image Acquisition

Optika MiPro allows still image acquisition with several possibilities to control the image output according to your needs. There are functions such as white balance, automatic exposure, frame average, sub-sampling, hue, saturation and intensity controls, to mention a few.







OPTIKA - SOFTWARE SUITE

FREEWARE

The Optika Vision® software package also contains a bundle of imaging, video and image analysis software that are freely available from the Internet. They are provided free of charge, according to the original license, as an aid in the use of your Optika product.

Emamcapture

AMCap is a small yet fully functional video capture and preview application compatible with Microsoft™ DirectShow (formerly ActiveMovie, hence the name). It is based on the sample AMCap source code from the Microsoft DirectX 9 SDK.

GIMP

GIMP is the GNU Image Manipulation Program. It is a freely distributed advanced software for tasks such as photo retouching, image composition and image authoring. It works on many operating systems, in many languages.

Combine Z

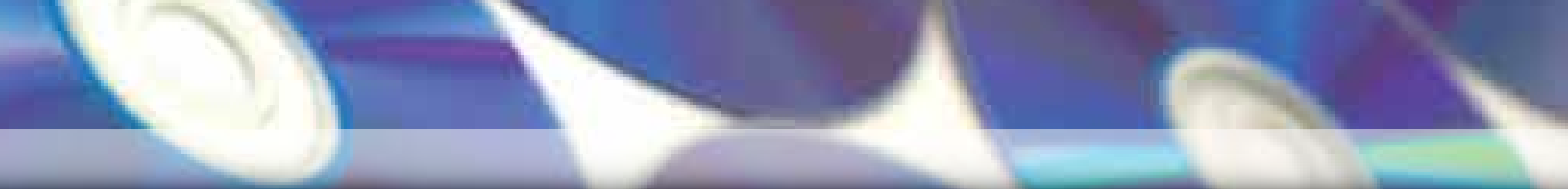
This small software combines pictures to increase depth of focus.

Image Tool (not for Windows 64bit)

ImageTool is an advanced image processing and analysis program for Windows. It can acquire, display, edit, analyze, process, compress, save and print greyscale and colour images. It can read and write over 22 common file image formats.
Image analysis functions include dimensional (distance, angle, perimeter, area), automatic (or manual) object/cell counting and full analysis functions, and greyscale measurements (point, line and area histogram with statistics). ImageTool supports standard image processing functions such as contrast manipulation, sharpening, smoothing, edge detection, median filtering and spatial convolutions with user-defined convolution masks.
ImageTool also has built-in scripting capabilities that allow the user to record repetitive tasks and playback saved scripts to automate image analysis. ImageTool was designed with an open architecture that provides extensibility via a variety of plug-ins for example image acquisition using either Adobe Photoshop plug-ins or Twain scanners is built-in.
ImageTool provides for geometric transformations and magnification up to four levels. All analysis and processing functions are available at any magnification factor.
ImageTool also provides for image annotation with text, arrows, rectangle, ellipses and polygon.

MBF ImageJ

ImageJ is a public domain Java image processing program that runs on any computer with a Java 1.4 or later virtual machine.
It can display, edit, analyze, process, save and print 8-bit, 16-bit and 32-bit images of various image formats. It supports "stacks", a series of images that share a single window. It is multithreaded, so time-consuming operations such as image file reading can be performed in parallel with other operations.



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