



**ADELTA™
OPTEC**

If you love microscopes
with sharp images !

ADELTAVISION™
Microscopes

Biological Microscopes

AV70™

Digital USB 2

USB 2 Digital Compound Microscopes

For the teaching in 21st century classroom and science labs



Truly affordable for 1:1 student interactive learning environment.

The **AV70** USB 2 Digital Compound Microscopes will put schools and colleges to the best use of ICT in their curriculum, providing the ideal interactive lab technology product in use today.

Today students have grown up in the digital age. Adelta Optec digital microscopes are well designed to be student friendly for today's technical savvy students. With minimal formal technical training and use of standard computers & our simplified 'APVIEW' Imaging Software, working with Adelta Optec digital microscope is so easy.

The digital microscopy enhances teaching & learning environment of today and increase opportunity for authentic hands on experience and prepare today's students well for the higher education courses, where the digital microscopy is a routine

Images appear live in real time on computer screen and observed simultaneously through the microscope for clear visualization thus making teaching with digital microscopy highly motivational and truly

interactive & engaging experience.

With Digital Microscopes students can capture images to enhance laboratory reports, develop digital notebooks, or document biological phenomena.

Students will be less likely to "see and flee" because they will need to put forth effort to develop their digital lab notebooks. By tapping into intrinsic motivation, this approach provides an effective means to promote learning and active participation of students.

The right start in education for life

The journey starts here for a great discovery

The new **AV70** Digital USB 2 Microscopes are easy to integrate into the classroom & lab setup and ready to use with existing computer, where the 'APVIEW' software is preloaded.

The rugged design of new **AV70** Digital USB 2 Microscopes is completely maintenance-free and is built for rough-and-tumble school environments.

What will the students learn?

Observe & visualize clearly through the microscope and computer display simultaneously.

Interactive learning by sharing their visual screen display with teacher & discuss the interesting findings.

Capture high resolution images from the microscope at a click of mouse.

Enhance the captured images using editing tools like colour adjustment, brightness, contrast, shading & sharpness, cropping of images, placing of arrows for labeling, insertion of text etc.

Student create their own folder to save the images into folders & make a record of the classroom/lab microscopy activity.

Transfer & store microscope lab activity to USB Flash Drive for the home work.

Record a video footage of moving alive microbes in motion.

Prepare digital lab manual with labeling of captured images. Insert high quality captured images in PowerPoint Presentation to enhance their presentation skills.

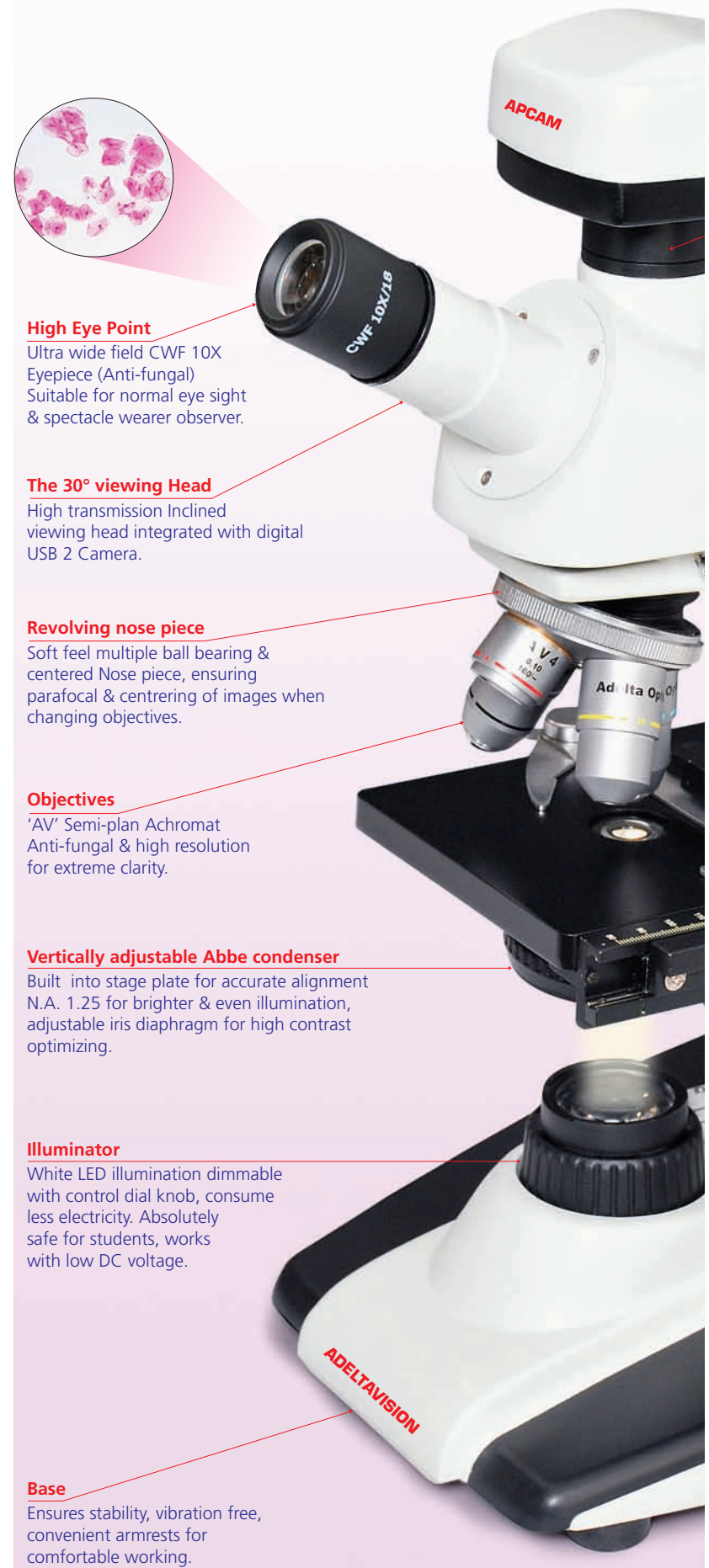
Create a practical observation lab report with annotations, text in a digital format. Create a database of images & quantify the findings of the work done throughout the course in their respective curriculums.

Learn to e-mail the scientific findings with images & text using internet or school intranet.

Post the captured images on facebook as a after school activity.

Perform micro measurements on captured images & prepare report with Microsoft Excel to enhance their mathematical skills.

Model: 5499AV70 USB 2 Digital Compound Microscope



High Eye Point

Ultra wide field CWF 10X Eyepiece (Anti-fungal) Suitable for normal eye sight & spectacle wearer observer.

The 30° viewing Head

High transmission Inclined viewing head integrated with digital USB 2 Camera.

Revolving nose piece

Soft feel multiple ball bearing & centered Nose piece, ensuring parfocal & centring of images when changing objectives.

Objectives

'AV' Semi-plan Achromat Anti-fungal & high resolution for extreme clarity.

Vertically adjustable Abbe condenser

Built into stage plate for accurate alignment N.A. 1.25 for brighter & even illumination, adjustable iris diaphragm for high contrast optimizing.

Illuminator

White LED illumination dimmable with control dial knob, consume less electricity. Absolutely safe for students, works with low DC voltage.

Base

Ensures stability, vibration free, convenient armrests for comfortable working.

Integrated Digital USB 2 Camera

Adelta's 'APCAM' USB 2 High Resolution colour camera with APVIEW Imaging Software

Imaging Lens

High Resolution & wide plan view.

Digital Teaching Head

Well aligned with microscope eyepiece for simultaneous viewing from scope & computer display.

Direct Image Transfer to PC

USB 2 cable Plug & Play.

The Housing

C-shaped pressure Aluminium die cast main frame with anti-fungal PU paint.

Mechanical Stage

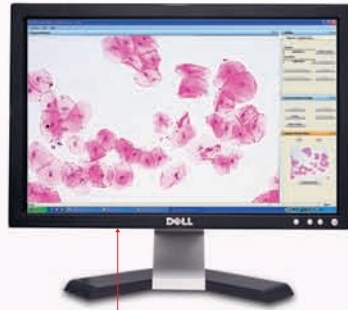
Smooth co-axial ball bearing stage for precise slide movement.

The unique 'AFM' Focusing Drive

Adaptive fine focusing mechanism is extra smooth & built with 0.2µm accuracy, prevents crashing of objectives with slide specimen automatically

On & Off Switch

Plug in AC power cord. 230 volt AC



It is so EASY!

Thanks to Comprehensive APVIEW Software from Adelta Optec.

The real time live viewing of images from **AV70** Digital Microscopes are of high definition on any PC monitor & simply straight forwardly pleasing.

To ensure clear visibility and learning for the student & teacher interaction in all curriculums from High School to Pre-University.



Capture still image or a video footage for engaging lab activity. Microscopy lab is no more a solitary activity.



Model: 5499AV70

Model: 5679AV70

AV70 USB 2 Digital Microscope Configuration:

Main Microscope Outfit	C-shape pressure die cast frame with "AFM" focusing mechanism (life time warranty) with quadruple ball bearing parfocal & parcentered Nosepiece & low positioned ball bearing co-axial Mechanical Stage.
Abbe Condenser	Built into stage plate & centered, vertically adjustable movement, precision Iris diaphragm.
Anti-fungal AV Objectives	Semi-Plan Achromat – AV4x, AV10x, AV40x(Spring), AV100x (oil) (Spring) is optional.
High Resolution Eye piece	High eyepoint CWF 10x/18mm (one no.) or High eyepoint CWF 10x/18mm (two nos.).
Illumination	White LED 120mA cluster, dimmable universal SMPS 12V, 500mA power supply. (110volts to 260volts).
Digital Viewing Head	30° inclined viewing monocular/binocular, high transmission prisms, imaging lens, High Resolution APCAM1.3 M.P. USB 2 Colour camera, Power supply via USB 2, 480mb/sec., High frame rate 40/sec. High Resolution (1280x1024 or 1072x768 & 6480x480).
APVIEW Software	APVIEW Image capture & Image process Software CD 1 no. Operating system Windows XP, Windows Vista & Windows 7.

Every AV70 Digital Microscope Includes:

Standard Microscope as per configuration above	1 set
APCAM1.3 USB 2 high resolution colour camera	1 nos.
USB 2 cable	1 nos.
APVIEW Software/Driver CD & User's manual CD	1 nos.
Warranty Certificate for complete system	1 nos.
Life Time Warranty Certificate for 'AFM' focusing system	1 nos.
Set of prepared slides (*1 set of 25 nos. permanent stained prepared slides) *The slide sets are available to suit various curriculum for High School, K12, pre-clinical medical & allied courses.	1 set*

Optional

AV70 Digital USB 2 Microscope models are also available with Ultra High Resolution 'APCAM-5 USB 2 colour camera (5 megapixel).

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer.

	WARNING TO ENSURE CORRECT USAGE, READ AV70 USB 2 SERIES USER'S INSTRUCTION MANUAL CAREFULLY BEFORE USING YOUR EQUIPMENT.
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ISO 9001:2008 & 14001:2004 Certified Manufacturing Unit:

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