



Model:

**B-190TB**

Typology:

**ROUTINE DIGITAL MICROSCOPE WITH TABLET**

Description:

*Educational and laboratory microscope for routine applications, with integrated camera and removable 10.1" full HD tablet.*

*Dye-cast frame, with high stability and ergonomics, for transmitted light observation.*

*Tablet PC with OPTIKA detachable system.*

**TABLET SPECIFICATION**

Model	Tablet 10.1"
Operating System	Windows 10 32-bit
Language	Multilanguages already installed
CPU	Intel® Atom™ Z3735F, Quad core
CPU speed	1,83 GHz
Graphics Card	Intel® HD Graphics 3D Accelerator
Memory	Ram 2,048 GB DDR3L
LCD display	LED 10.1" IPS Multi Touch Screen
LCD resolution	1280x800, 16/10 (WXGA)
Storage	Hdd 32GB
Network	Wireless Bluetooth 4.0
Input/output ports	USB - Microphone - Micro SD card reader - HDMI - Head-phone
Control Buttons	Auto rotate off, volume control
Battery Technology	Lithium-ion battery, 2x cell
Battery capacity	6000 mAh
Max load	18 W
Connection to the Load	Power supply 7,5V 2A
Dimensions	Thickness 10,5 mm, Height 17,4 cm, Width 25,7 cm
Weight	600 g
Cables included	OTG cable (Micro USB-B to USB-A)
Also included	Instruction manual, Keyboard with touchpad, touch pen.

**MICROSCOPE SPECIFICATIONS**

Model	Binocular with double layer stage, objectives 4x 10x 40x 100x
Head	Binocular Digital observation head, inclined 30° and rotatable 360°. Diopter adjustment on left eyepieces. Interpupillary adjustment 48-75 mm.
Observation Modes	Brightfield
Eyepieces	Widefield eyepieces WF10X/18 with field number 18mm.
Nosepiece	Quadruple revolving nosepiece, rotation on ball bearings.
Objectives	Achromatic objectives with mechanical tube length 160 mm, made by following objectives: -) Achromatic DIN 4X, A.N. 0.10, W.D. 18 mm -) Achromatic DIN 10X, A.N. 0.25, W.D. 7 mm -) Achromatic DIN 40X, A.N. 0.65, W.D. 0,53 mm -) Achromatic DIN 100X, A.N. 1,25, W.D. 0,13 mm (oil immersion) All objectives are treated with an anti-fungus treatment.
Stage	Double layer with mechanical sliding stage, size 125x115mm, X-Y movement range 70x30, specimen holder for one slide. Vernier scale on the two axes, accuracy 0,1 mm.

B-190TB		EN		OPTIKA	
Focusing System		Coaxial coarse and fine focusing mechanism (graduated, 0.002mm) with upper stop, to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.			
illumination		Light source type X-LED² with white LED; light intensity control using a knob on left side of the frame. LED power 3W, comparable to an halogen bulb 30-35W. Color temperature: 6300K LED average life time approx. 50.000h. Voltage: external power supply 100/240Vac, 50/60Hz, output: 6 V Max power required: 7W			
Condenser		Abbe condenser, N.A. 1,25 precentered			
Dimensions		Microscope without tablet HEIGHT: 430 mm WIDHT: 235 mm DEPTH: 290 mm WEIGHT: 7,0 kg		Microscope with tablet HEIGHT: 525 mm WIDHT: 260 mm DEPTH: 290 mm WEIGHT: 7,4 kg	
CAMERA SPECIFICATIONS					
Digital camera resolution		3.14 MegaPixels			
Analog camera resolution		NO			
Signal output		USB 2.0			
Audio Signal		NO			
Sensor Size		1/2.5"			
Sensor technology		CMOS			
Image format		4\3			
Full Image size		2048 x 1536			
Pixel size		2,2 x 2,2 micron			
Frame rate full resolution		5 frames\sec			
Frame rate other resolutions		8 FPS (1280x1024), 30FPS (640x480)			
Sensitivity		0,53 V/Lux-second (550 nm)			
Signal / noise ratio		40 dB			
Dynamic range		66.5 dB			
Max Exposure time		1,5 sec			
ADC conversion		12 BIT			
Color Depth		8 BIT			
On camera IR Filter		680 nm			
Automatic White Balance		Auto - Man			
Automatic Gain Control		Auto - Man			
Automatic Back light control		Auto - Man			
Exposure control		Auto - Man			
ACCESSORIES					
Calibration Slide		YES			
SOFTWARE SPECIFICATIONS					
Supplied Software		Optika Vision Lite (full view function is also included for a wider Live Camera view)			
Driver type		No driver (microsoft driver)			
Capture features		Continuous auto exposure, image size, image capture, compressed video capture			
Control parameters		Brightness, gain, exposur time, colors, color enhancement.			
GENERAL SPECIFICATIONS					
Working temperature		+0 up to +60°C			
Storage temperature		-20 up to +70°C			
Relative Humidity		45% up to 85%			