



Model:

**B-290TB**

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, E-PLAN 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/20 with field number 20.
Nosepiece	Quadruple revolving nosepiece, rotation on ball bearings.
Objectives	E-Plan objectives with mechanical tube length 160mm: -) E-Plan 4X, N.A. 0.10, W.D. 15.2 mm -) E-Plan 10X, N.A. 0.25, W.D. 5.5 mm -) E-Plan 40X, N.A. 0.65, W.D. 0.45 mm -) E-Plan 100X, N.A. 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 150x139mm, X-Y movement range 75x33mm, specimen holder for one slide. Belt drive in X direction. Vernier scale on X-Y axes, accuracy 0,1mm.

<b>Focusing System</b>	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.	
<b>illumination</b>	Light source X-LED <sup>3</sup> type with white LED; light intensity control using a knob on left side of the frame. LED power 3.6W, comparable to a 50W halogen bulb. Color temperature: 6300K. LED average lifetime approx.: 50.000h. Voltage: external power supply 100/240Vac, 50/60Hz, output: 6Vdc 1A. Max. required power: 7W.	
<b>Condenser</b>	NA1.25 Abbe condenser, sliding-in, centrable, up-down adjustment by rack&pinion	
<b>Dimensions</b>	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**

<b>Digital camera resolution</b>	3.14 MegaPixels
<b>Analog camera resolution</b>	NO
<b>Signal output</b>	USB 2.0
<b>Audio Signal</b>	NO
<b>Sensor Size</b>	1/2.5"
<b>Sensor technology</b>	CMOS
<b>Image format</b>	4\3
<b>Full Image size</b>	2048 x 1536
<b>Pixel size</b>	2,2 x 2,2 micron
<b>Frame rate full resolution</b>	5 frames\sec
<b>Frame rate other resolutions</b>	8 FPS (1280x1024), 30FPS (640x480)
<b>Sensitivity</b>	0,53 V/Lux-second (550 nm)
<b>Signal / noise ratio</b>	40 dB
<b>Dynamic range</b>	66.5 dB
<b>Max Exposure time</b>	1,5 sec
<b>ADC conversion</b>	12 BIT
<b>Color Depth</b>	8 BIT
<b>On camera IR Filter</b>	680 nm
<b>Automatic White Balance</b>	Auto - Man
<b>Automatic Gain Control</b>	Auto - Man
<b>Automatic Back light control</b>	Auto - Man
<b>Exposure control</b>	Auto - Man

**ACCESSORIES**

<b>Calibration Slide</b>	YES
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**SOFTWARE SPECIFICATIONS**

<b>Supplied Software</b>	Optika Vision Lite (full view function is also included for a wider Live Camera view)
<b>Driver type</b>	No driver (microsoft driver)
<b>Capture features</b>	Continuous auto exposure, image size, image capture, compressed video capture
<b>Control parameters</b>	Brightness, gain, exposur time, colors, color enhancement.

**GENERAL SPECIFICATIONS**

<b>Working temperature</b>	+0 up to +60°C
<b>Storage temperature</b>	-20 up to +70°C
<b>Relative Humidity</b>	45% up to 85%