



## OPTO EDU A64.1010 Full Auto APO Laser Confocal Microscope with Motorized Z Axis and High Speed Hardware Control

Our Product Introduction

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### Basic Information

- Place of Origin: China
- Brand Name: OPTO-EDU
- Certification: CE, Rohs
- Model Number: A64.1099
- Minimum Order Quantity: 1 pc
- Price: FOB \$1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: T/T, West Union, Paypal
- Supply Ability: 5000 pcs/ Month



### Product Specification

- Eyepiece: WF10x/22mm Eyepiece, Diopter Adjustable +/-5°, High Eyepoint
- Head: 10-40° Tilt Adjustable Binocular Head
- Mag. Switch: Coded Manual Intermediate Magnification Switch Button 1x/1.5x On Right Side
- Objective: NIS60 Infinity Plan APO Achromatic Objective
- Focusing: Motorized Z Axis, Grating Type, Moving Range Up 8.5mm
- Transmit Light: Kohler Illumination, With Field/Iris Diaphragm, 0~25° Tilt Adjustable Arm
- Highlight: **OPTO EDU Laser Confocal Microscope, Semi APO Laser Confocal Microscope, Full Auto Laser Confocal Microscope**



### More Images



### Product Description

#### OPTO EDU A64.1010 Full Auto APO Laser Confocal Microscope

High Speed Hardware Control

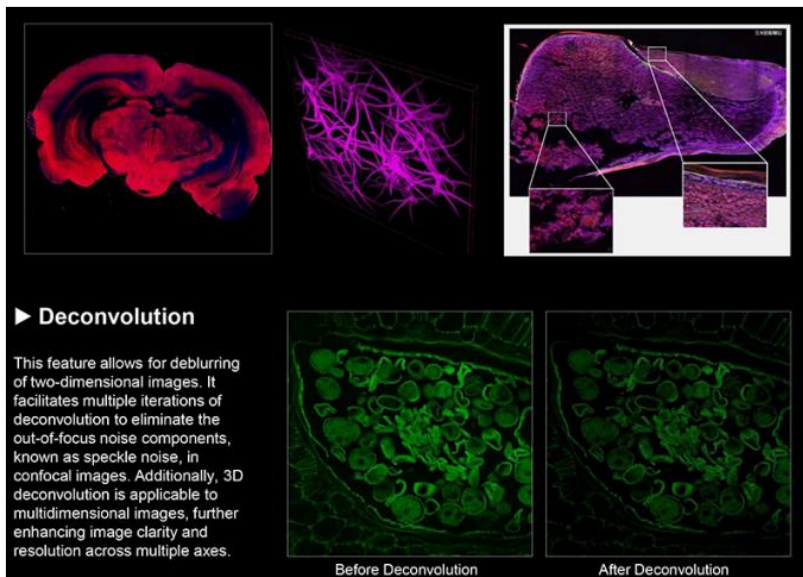
Our Product

This system provides unprecedented operational convenience, enabling digital management and precise control of multiple microscope components including objective lens switching, focusing, condenser lens changing, and fluorescence module transitions.



### Multi Dimensional Imaging And Display

The system memorizes custom observation modes and supports combined X, Y, Z,  $\lambda$ , and T scanning functions. It offers flexible shooting modes including multi-channel fluorescence imaging, time-lapse scanning, multi-position acquisition, Z-axis stacking, and panoramic stitching for diverse experimental scenarios.



### High Performance Confocal Microscopy Platform

The A16.1099 platform provides a powerful, flexible imaging solution with 25mm field of view, ideal for large sample research. It integrates brightfield, fluorescence, DIC, and phase contrast techniques with optional single or dual-layer optical paths. The Adaptive Focus Shift System (AFS) ensures precise focal plane positioning for stable recordings of cellular dynamics.

**A64.1010 Details**

**OPTO-EDU**

### High Speed Electric Motor Control

Enhanced operation speeds for objectives, filter blocks, XY stage, and observation modules create an effortless workflow. The intuitive joystick control makes the microscope an extension of the researcher's hands.



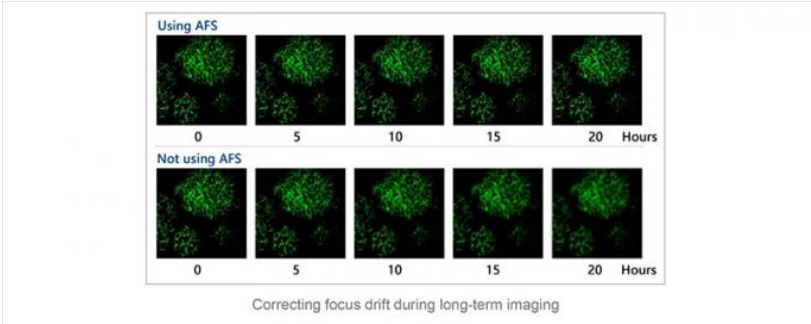
### Live Cell Culture System

Precisely regulates platform temperature, humidity, and CO<sub>2</sub> concentration for ideal long-term cell cultivation conditions.



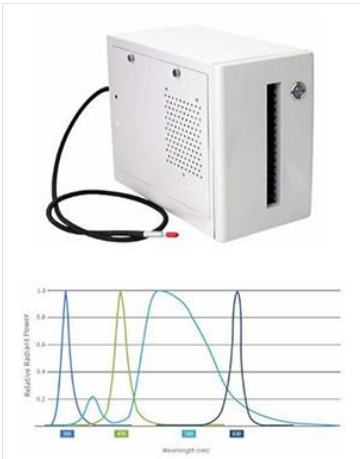
### AFS Ensures Stable Imaging Performance

Independent focusing design minimizes mechanical impact on Z-axis. The Adaptive Focus System intelligently eliminates drift, delivering crisp images across techniques including super-resolution, confocal, and TIRF microscopy.



### High Power LED Fluorescence Illuminator

4-channel LED system offers high compatibility with common dyes, concentrated excitation energy, and reduced photobleaching. Instant-on capability and long lifespan make it superior to mercury lamps.



### Smart Interactive Operation

5.6-inch touch screen enhances interface convenience while retaining traditional controls for intuitive operation in dark environments.



### Technical Specifications

Component	Description	Included	Catalog No.
Main Frame	Motorized Frame with 5.7" Touch Screen	●	
Eyepiece	WF10x/22mm, Diopter Adjustable +/-5°	●●	A51.1006-1022A
Objectives	NIS60 Infinity Plan APO Achromatic 4x-100x	●/o	A52.1099 series
Working Stage	Motorized XY 130x100mm, Precision 0.1μm	●	
Laser Confocal	4 Laser Source (405,488,561,640nm), 4 PMT Detection	●	
Computer	i7-11700/32GB DDR4/1TB SSD/RTX A2000	●	

### Multimodal Capabilities

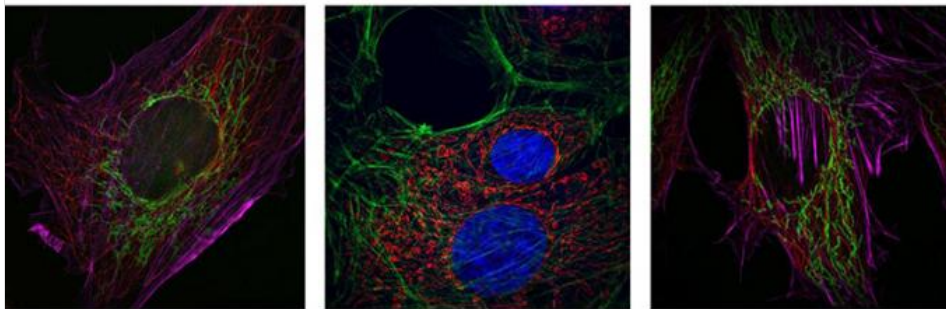
Brightfield, Phase Contrast, Fluorescence, DIC  
 Field of View up to 66µm x 66µm at 100X  
 Lateral Resolution (2D-SIM) improved 2-fold to 86nm  
 Axial Super-Resolution (3D-SIM) to 270nm  
 Real-time super-resolution imaging at video rate

Capable of Super Resolution Module

OPTO-EDU



A65.1010 Super Resolution Microscope



A64.1010 Laser Confocal Microscope				Cat
Confocal	4 Channels Laser Confocal	•		
Laser Source	4 Laser Source With AOTF, Max Laser Power 50mW, 405nm, 488nm, 561nm, 640nm	•		
Detector	4 PMT Detector EX 405nm, 488nm, 561nm, 640nm, Captuer Set, Control Set Channel 1 EM:440-470 Channel 2 EM:510-540 Channel 3 EM:575-605 Channel 4 EM:679-727	•		
Scan Head	Max Pixel 8192x8192 (8K x 8K)	•		
Scan Mode	Support Combine Use of X,Y,Z,λ,T Scanning Functions			
Pinhole	Motorized Pinhole Stepless Adjustment, Galvanometer Scanning Mirror,	•		
Field of View	Confocal Field of View: Square Inscribed In Dia. 25mm Circle	•		
Depth of Image	16 Bits	•		
Computer	i7-11700/16GB*2 DDR4/1TB SSD/RTX A2000 6G/USB PCIE Card, 4x USB3.0, Win 11	•		
Monitor	31" 4K Monitor	•		
Camera	4K 8.0M 1.1" CMOS, Work With 1x C-Mount, FOV 18mm, 4K@FPS23.4, Max FPS46.3 24M Digital Camera, 2.7" CMOS, Work With 1.5x C-Mount (M52), 6K High Resolution, 15.3FPS@20M, Max FPS 114	•		
		0		A5€ 24M

Port	Left Side Confocal Port With 1x Lens	●		
Software	Nomis Pro X-C, Equipped With Confocal Scanning Function, Multi-dimensional Imaging, And Preset Function By Channel, Possesses Various Imaging Functions Such As Wide Field And Confocal Imaging. The Software Has Complete Control Module For The Hardware, With Built-in Basic Image Filtering And Supports Image Output In Multiple Formats.	●		
Microscope	NIS60 Infinity Plan Optical System, BF, PH, Hoffman, PL, DIC, FL	●		
Main Frame	Motorized Microscope Frame --5.7" Touch Screen, Show All Status,Control All Parts --Motorized Z Axis Control Working Stage Focusing --Coded Brightness Adjust Knob --F1 Button For Customized Function --Motorized Nosepiece Objective Switch --Motorized Condenser Turret Control --Motorized Layers Fluorescent Turret Control --Coded Manual Intermediate Magnification 1x/1.5x Switch Button --Coded Manual Bertrand Lens Switch & Status Detection --Motorized 4 Light Split Switch: E100/L100/R/100/E20:R80 --1x/1.5x Magnification Switch	●		
Eyepiece	WF10x/22mm Eyepiece, Diopter Adjustable +/-5°, High Eyepoint	●●		A51 102
Head	10-40° Tilt Adjustable Binocular Head, IPD 47-78mm, Eyepiece Tube Dia. 30mm	●		A51
Nosepiece	Motorized 6 Holes Nosepiece, With DIC Slot, M25×0.75	●		A54
	Motorized 6 Holes Nosepiece, With Adaptive Anti-Focus Shift System (AFS)	o		A54 MA
NIS60	4x, N.A.0.2, W.D.20mm, Cover Glass -	o		A52
Infinity Plan	10x, N.A.0.45, W.D.4mm, Cover Glass 0.17mm	●		A52
APO	20x, N.A.0.75, W.D.1.1mm, Cover Glass 0.17mm	●		A52
Achromatic	40x, N.A.0.95, W.D.0.19-0.21mm, Cover Glass 0.17mm	●		A52
Objective	60x (Oil), N.A.1.42, W.D.0.25mm, Cover Glass 0.17mm	●		A52
	100x(Oil), N.A.1.45, W.D.0.13mm, Cover Glass 0.17mm	o		A52
	100x(Oil), N.A.1.49, W.D.0.09-0.16mm, Cover Glass 0.13~0.19(23C°), 0.14~0.20(37°C)	o		A52 100
Working Stage	Motorized Working Stage, Grating Type,XY Moving 130x100mm, Size 445x300mm, Max Speed 20mm/s, Moving Precision 0.1µm, Repeatability 0.5µm	●		
	Slide & Petri Dish Holder For Dia. 35-65mm	●		
	4~1396 Holes Plate Holder	●		
	Holder For 96 Holes Petri Dish	o		A54
	Holer For For Olympus 6 Holes Petri Dish	o		A54
Focusing	Motorized Z Axis, Optical Grating Resolution 10nm, Moving Range Up 8.5mm, Down 1.5mm, Min Step 0.02um, Repeatability 0.1um, 3 Level Focusing Knob: 2um/ 40um/ 200um Per Circle	●		
Transmit Light	Kohler Illumination, With Field/Iris Diaphragm, 0~25° Tilt Adjustable Arm	●		
	Electrical Optical Brake Optional			
	3W S-LED Lamp House	●		
Condenser	Motorized 7 Holes Condenser Turret, --4 Small Holes Dia.37mm For Phase Contrast, Hoffman, ND Filter, --3 Big Holes Dia.39mm For DIC, ND Filters, --Up/Down Range 66mm	●		
	Long Working Distance Condenser NA=0.52,WD=30mm	●		
Phase Contrast	10x-20x Phase Contrast Module	●		
	40x Phase Contrast Module	●		
	Coded Manual Bertrand Lens For Polarizing, Switch In/Out Light Path, Focus Adjustable	●		
DIC &	DIC Set, Including Manual Splitter, With Optical Fiber, View Field 18mm, With DIC Prism Slide (Into Nosepiece DIC Slot), DIC Polarizer Slide, DIC Analyzer Slide	●		A50
	Insert In Nosepiece DIC Slot, 10x DIC Nocaridan Prism Slide	●		A50 N10
	Insert In Nosepiece DIC Slot, 20x DIC Nocaridan Prism Slide	●		A50 N20
	Insert In Nosepiece DIC Slot, 40x DIC Nocaridan Prism Slide	●		A50 N40

Polarizing	Insert In Nosepiece DIC Slot, 60x DIC Nocaridan Prism Slide	●		A5C N6C
	Insert In Nosepiece DIC Slot, 100x DIC Nocaridan Prism Slide	o		A5C N1C
	In Condenser Turret, 10x DIC Walker Prism,	●		A5C W1
	In Condenser Turret, 20x/40x/60x DIC Walker Prism	●		A5C W2
	In Condenser Turret, 100x DIC Walker Prism	o		A5C W1
Reflect Fluorescent Light	Epi Fluorescent LED Light Source, 4 Bands 385nm, 470nm, 555nm, 630nm, With Optical Fiber & Fiber Adapter, 2 Holes Filter Insert Plate	●		
	Iris Diaphragm	●		
	LED Light Box	●		
	LED Light Controller Box	●		
Fluorescent Turret & Filters	Motorized 6 Holes Fluorescent Turret Disc, Motorized Shutter, With Cable	●		
	2nd Layer Fluorescent Turret Set, Including Z Axis Heighten Base, Fluorescent Turnable Heighten Seat, Stage Heighten Seat	o		A5F
	FITC Filter, BP460-495, DM505, BA510-550	●		
	TRTC Filter, BP528-553, DM565, BA578-633	●		
	DAPI Filter, BP360-390, DM415, BA435-485	●		
Middle Part	Coded Light Split Status Detection: 100/0, 0/100	●		
Mag. Switch	Coded Manual Intermediate Magnification Switch Button 1x/1.5x On Right Side	●		
Light Split	Motorized Light Split Switch, Control By Front 5.7" Touch Screen: --Eyepiece 100%, --Left Photo Port 100%, --Right Photo Port 100%, --Eyepiece 20% + Right Photo Port 80%	●		
Photo Port	Left Photo Port, With Built-in 1x C-Mount	●		A5E L1.0
	0.7x C-Mount For Left Photo Port	o		A5E L0.7
	0.5x C-Mount For Left Photo Port	o		A5E L0.5
	1x C-Mount For Right Photo Port,	●		A5E R1.0
Joystick	Joystick For XYZ Motorized Control, Touch Screen Show Objectives, Fluorescent Filters, Customized Shortcut Button	●		
Tool Kit	Full Set Tool Kit For Installation	●		
Dust Cover	Dust Cover For A64 Series	●		
Cable	USB2.0 Cable 1.5m, Motorized Control Data Cable	●		
Platform	Vibration Isolation Platform, 1000x1000mm	o		A5C



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