Opto Edu A64.0960 Laser Confocal Scanning Microscope Full Auto Motorized

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A64.0960
- 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

- Scan Area: XY Scanning System
- Resolution: 512×512 4096×4096
- Pixel: 0.5us 8us
- Zoom Scanning: 1-16X
- FL Detector 3pcs: 3PMT
- Nosepiece: Motorized, 6-holes
- Highlight: **A64.0960 Laser Confocal Scanning Microscope**, **Laser Confocal Scanning Microscope**, **Full Auto Motorized Scanning Microscope**

Product Description

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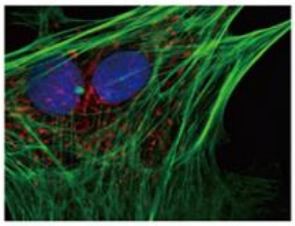
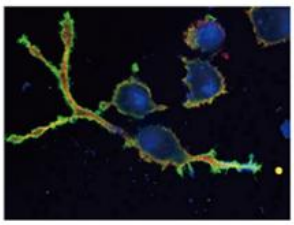
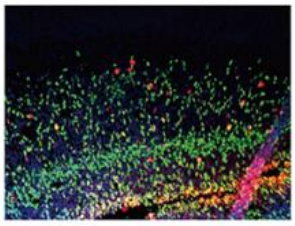
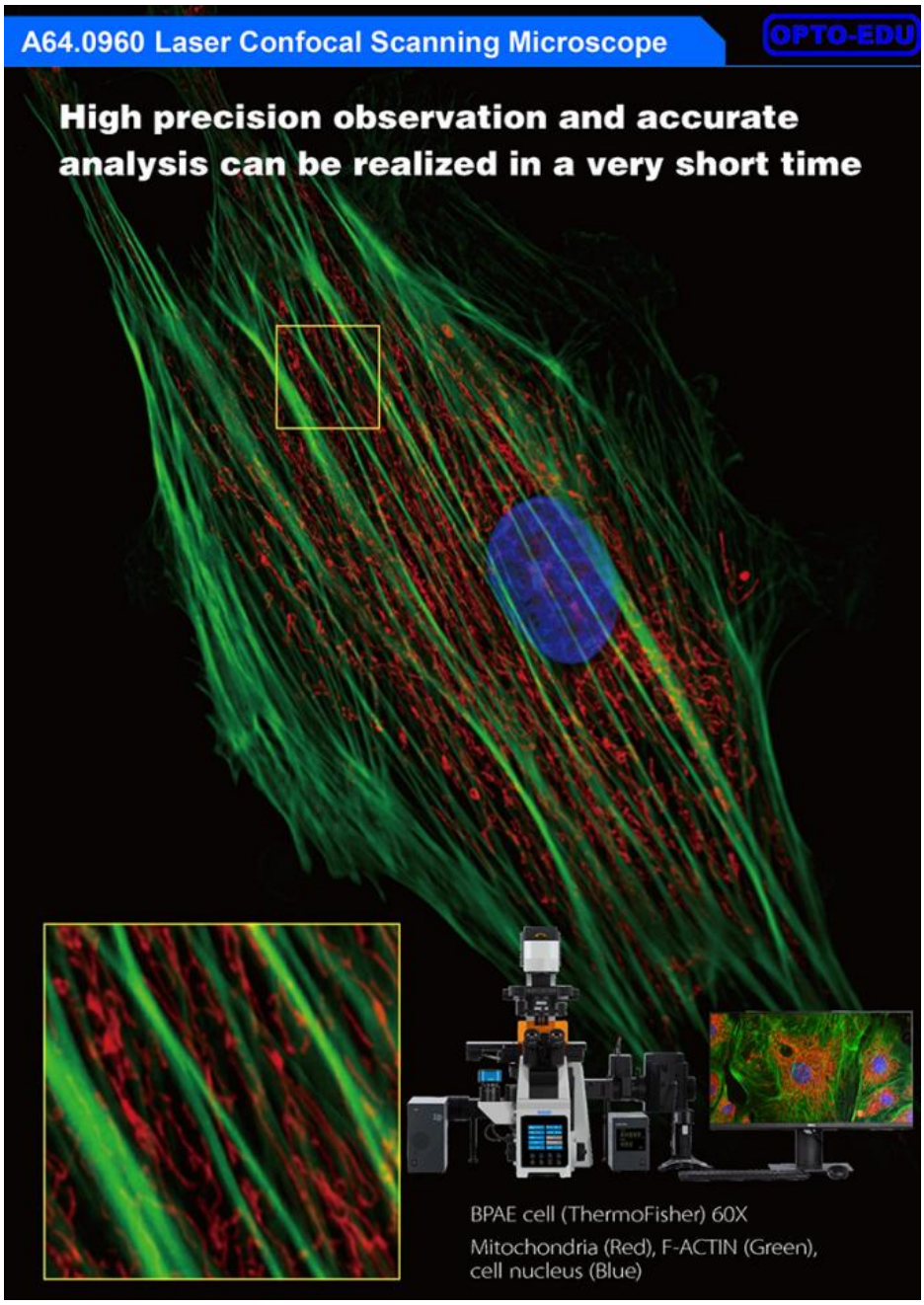
A64.0960

Laser Confocal Scanning Microscope, Full Auto Motorized, BF+PL++FL+DIC








A64.0960 Laser Confocal Scanning Microscope
OPTO-EDU
High precision observation and accurate analysis can be realized in a very short time
BPAE cell (ThermoFisher) 60X
Mitochondria (Red), F-ACTIN (Green),
cell nucleus (Blue)

▶ Laser Light

405nm/50mW, 488nm/50mW, 561nm/50mW, 640nm/40mW

▶ Confocal Scan Module

X/Y dual axis high speed optical scanning, resolution 4Kx4K, field of view 19mm, zoom scanning 1x-16x

▶ Probe Unit

Standard 3 MA PMTs, GaAsP PMT Optional

▶ Microscope

Inverted Fluorescent Microscope, full motorized, infinity plan SUPER APO objective 10x20x40x60x100x

▶ Camera

5 million pixels, color camera, SONY IMX264, frame rate 35fps, USB3.0, 0.65x C-Mount

▶ Software

Photo and preview parameter self-adaptive; two rescan processing; image rotation output; full vision and ROI scanning image, support XY, XYZ, XYZT

▶ Computer

CPU: Intel I7 or above, RAM: ≥16G, Hard disc: ≥1T+256G, Graphics card: Single, Monitor: ≥27 inch, resolution 2560×1440, Operation system: 64 bite, Windows X10

A64.0960 Details

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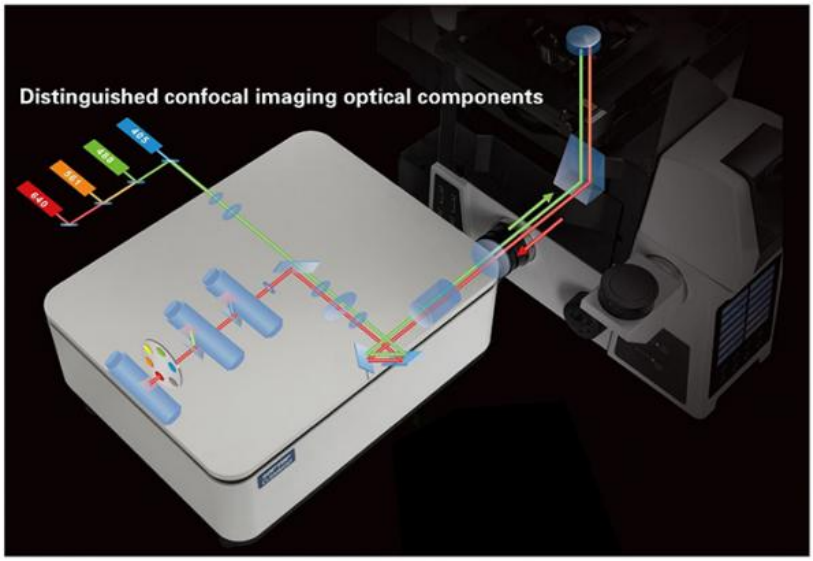
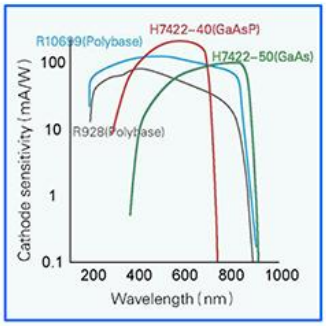
▶ Innovative Confocal Pinhole Unit

Pinhole design is based on the principle of light reversibility. The excitation light of the lamp and the emission light of the sample pass through the same pinhole, and they keep a 100% conjugate relationship.
It not only ensures the acquisition efficiency of fluorescence signal, but also improves the filtering of non-focal plane signal, for the higher detection sensitivity and better image resolution.



▶ Controller Probe Unit

The probe unit consists of a 6-position electric filter turntable with 4 filters as standard and a single high-sensitivity multi base photomultiplier tube (MA PMT, QE≥25%@500nm), is able to easily and quickly automatically complete multicolor fluor escence confocal imaging.



▶ Tilting Transmitted Illumination

The transmission system adopts the tilting structure to ensure Larger working space, easier to change samples.

▶ Front LCD Panel

It is able to display the status of electric parts in real time, and set the observation mode, switch the light brake, etc., which greatly improves the user experience and makes the research work more convenient.

▶ Full motorized control system

The height of electric Z- axis is able to be fast adjusted according to real-time image. Auto focusing by AF key, eliminate the step of fine tuning. improve work efficiency.

Integrated control buttons on both sides of the frame, can quickly switch on rotate the condenser, brightness, objective lens, attenuator disc and fluorescence disc, improve the operation convenience.

▶ High scalable

The big frame provides sufficient space for third-party configurations. Single -layer optical path or double -layer optical path can be selected as required. It can be loaded into 16 filters at most, providing maximum scalability for the in- depth research.

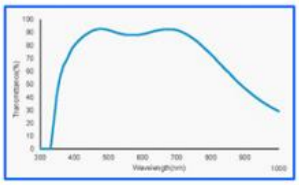
▶ APO Series Apochromatic Objectives

Converging the optic axises of red, green and blue to one focal plane, correcting the axial chromatic aberration of violet light, the original color of samples is able to be presented. And the resolution and effective magnification are improved based on large numerical aperture.

▶ SAPO Series SUPER Apochromatic Objectives

With large numerical aperture, excellent color difference correction and flat field, more uniform, bright and high-resolution fluorescence images can be obtained.

Model	Magnification	N.A. (N.A.)	W.D. (mm)	C.G. (mm)	Immersion Oil
APO Series Apochromatic Objectives	2x	0.08	6.20	/	/
	4x	0.16	12.80	/	/
	10x	0.40	3.20	0.17	/
	20x	0.75	0.60	0.17	/
	40x	0.95	0.15	0.17	/
	60x	0.90	0.26	0.17	/
	60x	1.25	0.14	0.17	oil
	100x	1.35	0.13	0.17	oil
SAPO Series Super Apochromatic Objectives	10x	0.40	3.10	0.17	/
	20x	0.80	0.60	0.17	/
	40x	0.95	0.18	0.17	/
	60x	1.42	0.17	0.17	oil
	100x	1.45	0.14	0.17	oil



A64.0960 Biological Application

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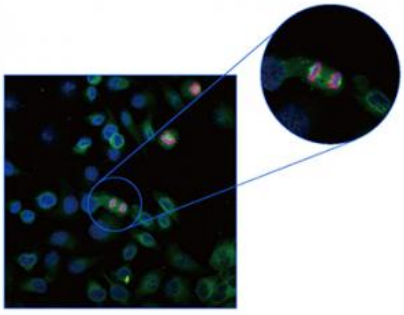
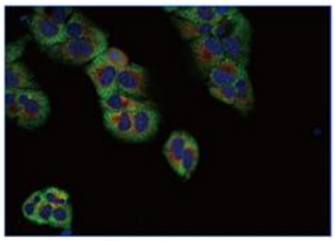
▶ Cell Imaging

A64.0960 is able to accurately image all cells labeled with various fluorescent proteins and multicolor probes, studying the fluorescence colocalization, dynamic properties and spatial relationships of two or more target proteins. Besides, A64.0960 can achieve the morphological structure of 3D cell culture such as organoids/globules by 3D reconstruction, finding out more hidden information.



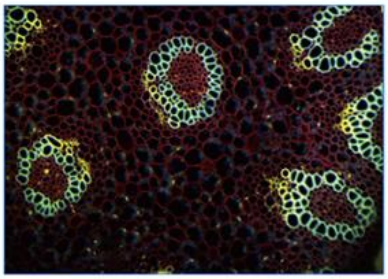
HELA Cell Peking University Heath Center 60X



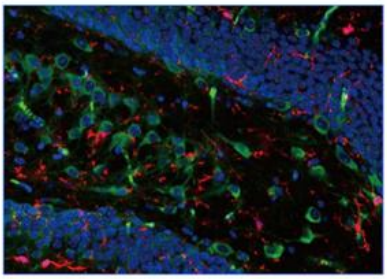
Human hepatocytes (Zhejiang University) 40X

▶ Histopathological sections of animals and plants

The layer scanning of A64.0960 is suitable for different histopathological sections of animals and plants, especially for large tissue. Much more details and more accurate data are available.



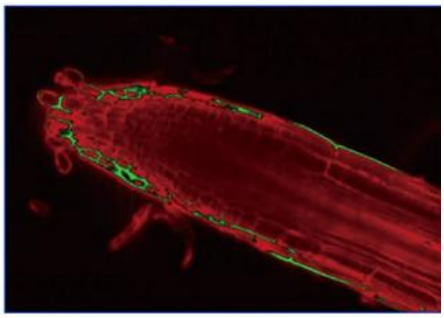
Convallaria rhizome (Zhejiang University) 20X



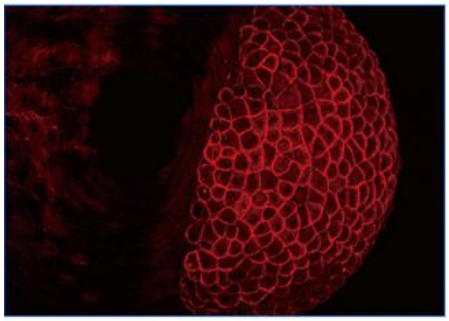
Hippocampal slice (Chinese Military Academy of Science) 40X

▶ Viviperception of model animals and plants

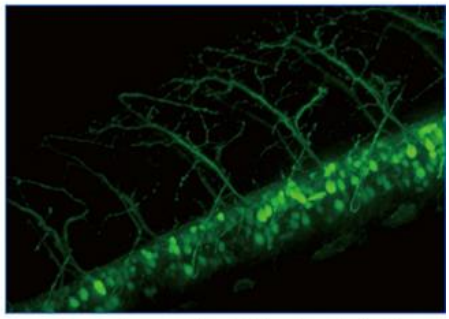
In general, common model organisms such as zebrafish, fruit flies, nematodes and Arabidopsis thaliana are characterized by large size, complex structure, and high density. With wide FOV and layer scanning,
A64.0960 is an ideal tool to get fine structure image and details at different depths



Arabidopsis root (Huazhong Agricultural University) 40X



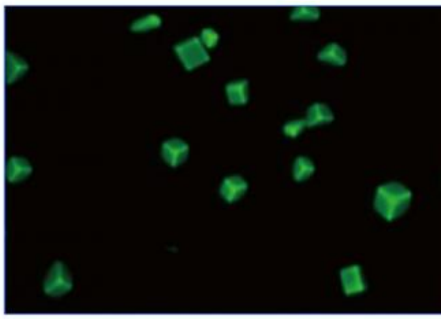
Zebrafish embryo (West China Hospital) 20X



Zebrafish nerves (West China Hospital) 40X

▶ Biomaterial

In the field of biomphotonics, the research heat of biological information and nanomaterials is increasing. In the study of photoelectric materials, A64.0960 can cooperate with the living cell environment monitoring module to observe the process of interaction between materials and cells for the fusion of new functional materials, inorganic nano hybrid materials and living cells.

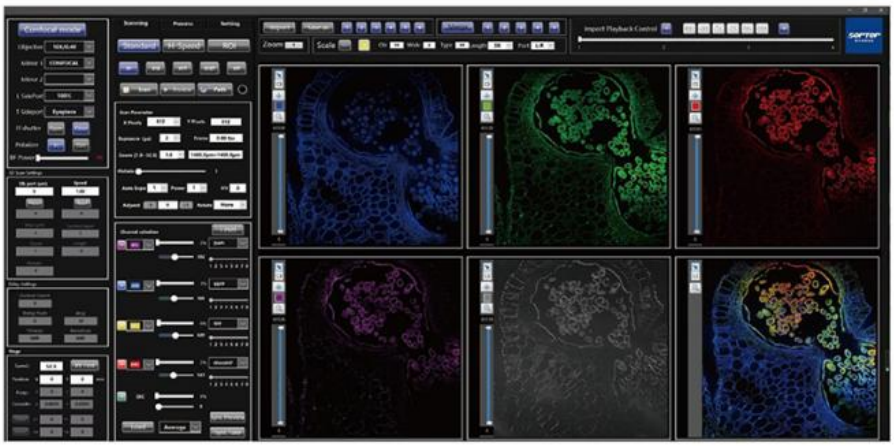


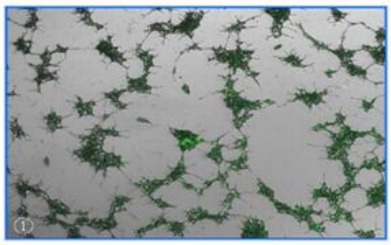
Functional materials (Wuhan University of Technology) 60X

A64.0960 Software OPTO-EDU

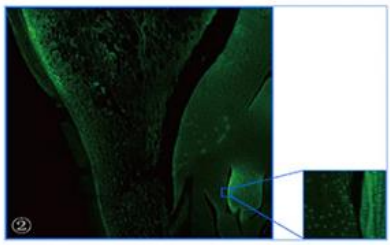
▶ Confocal Software

Support single channel or multi-channel 2D Imaging (XY), 3D imaging (XYZ), 4D imaging (XYZT) and multi-site scanning. It is available for imaging, photobleaching and photo stimulation within a user-defined ROI, as well as Z- Stack imaging, jigsaw puzzles, scale correction, filtering processing, data recording, etc.

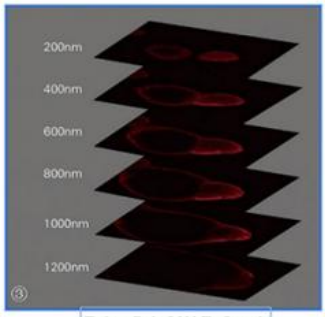




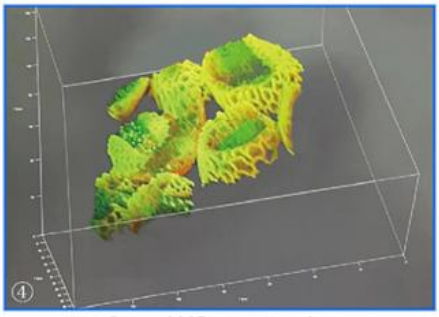
Hek 293t cell 60X DIC



Corn root 40X Large image mosaic



Zebrafish 20X Z- Stack



Organoid 3D reconstruction

A64.0960 Specification

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A64.0960 Laser Confocal Scanning Microscope, Full Auto Motorized			
Item	Specification	Qty	
A64.0960	Laser Confocal Scanning Microscope, Full Auto Motorized, Standard Outfit		
Main Body	Laboratory Level Inverted Microscope, Including: --Viewing Head, Main Body, --LED Transmit Illumination System, --L Type Fluorescent Reflect Illumination System, --Motorized Fluorescent Disc --Motorized 7 Holes Universal Turret Disc Condenser For BF, DF, FL, DIC. --Motorized Controller, --Power Cord, Data Cables, --Fluorescent Oil	•	
View Head	20-45° Inclined, Gemel Binocular, Interpupillary 50~76mm	•	
Eyepiece	PL10X/22mm, Diopter Adjustable	•	
Nosepiece	Motorized 6 Holes Nosepiece	•	
Motorized Stage	Motorized Mechanical 3 Layers Working Stage, --Size 350mm(X) x 200mm(Y), Moving Range 114mm(X) x 75mm(Y), --Absolute Positioning Accuracy <2um/10mm --Unidirectional Repeat Positioning Accuracy <1um, --Bidirectional Repeat Positioning Accuracy <2.5um, --Maximum Speed 50mm/s, --Including Motorized Contoller, Slide Holder T-SGH1	•	A54.0964
	Ø36 Petri Dish Holder	•	A54.0964-36
	96 Holes Dish Holder	○	A54.0964-96
	Terasaki Holder	○	A54.0964-T
	Infinity Plan APO 4X/0.16 WD=12.8mm	○	A5F.0962

Infinity Plan Apochromatic Objective:	Infinity Plan Super-APO 10X/0.4 WD=3.1mm	•	A5F.0963
	Infinity Plan Super-APO 20X/0.8 WD=0.6mm	•	A5F.0963
	Infinity Plan Super-APO 40X/0.95 WD=0.18mm	•	A5F.0963
	Infinity Plan Super-APO 60X/1.42 WD=0.17mm, Oil	•	A5F.0963
	Infinity Plan Super-APO 100X/1.45 WD=0.14mm, Oil	•	A5F.0963
Condenser:	Motorized, 7 Holes, N.A.>0.55, W.D.>27mm, 3 Holes For 30mm PH, 4 Holes For 38mm DIC, With Motorized Diaphragm, With **Polarizer**	•	
Flourescent	100W Mercury Fluorescent Illuminator, With Power Supply Box, With 100W Mercury Lamp (OSRAM)	•	A5F.0960-WER
	5 Holes Motorized Filter Disc, With BF, Stopper, ND6/ND25/ND50 Filters, Including Cables	•	
	10W LED Fluorescent Illuminator, With 4 Channels: 365/460/525/625nm, Excite Controller Time <500ms, Brightness Separately Adjustable, Life Time >20000 Hours, Support SDK Control	○	A5F.0960-LED4
	Extended Parts	○	A5F.0960-EX
	Fluorescent Filter B1,EX: AT480/30X, BS: AT505DC, EM:AT535/40M	•	A5F.0960-B1
	Fluorescent Filter G1,EX: AT560/40X, BS: AT600DC, EM:AT635/60M	•	A5F.0960-G1
	Fluorescent Filter UV1,EX: AT375/28X, BS: AT415DC, EM:AT460/50M	•	A5F.0960-UV1
	Fluorescent Filter R1,EX: AT620/50X, BS: AT655DC, EM:AT690/50M	○	A5F.0960-R1
DIC	DIC Imaging Kit For 10X, 20X, 40X, 60X, Including 1 DIC Detector, With 10-60X Differential Interference Imaging Function, Can Realize DIC-fluorescence Imaging And Overlay Analysis, Including DIC Insert Board, Analyzer Group, DIC Ring Plate	•	
Laser Confocal	Laser Confocal XY Scan & Detector, 1 GaAsP	•	AF.0965-GaAsP
	Laser Confocal XY Scan & Detector, 1 PMT	○	AF.0965-PMT
	Semicoductor/Solid Laser Source With 4 Channels, Wavelength 405nm, 488nm, 561nm, 640nm, Output Power >50mW	•	AF.0965-L1
	Advanced Version Semicoductor/Solid Laser Source With 4 Channels, Wavelength 405nm, 488nm, 561nm, 640nm, Output Power >50mW	○	AF.0965-L2
Computer	HP i7-14700F RTX4060T1 Graphic Card, 32G Memory, 1TB HDD, Curved Monitor S3423DWC USB-C	•	
Software	According To Different Imaging Modes, Multi-channel Time-division And Simultaneous Image Acquisition Can Be Achieved, Supporting Multiple Automatic Acquisition Processes Such as XY, XYZ, XYT, XYZT, etc., And Saving The Shooting Environment. Also Supports Large Image Stitching, 3D Reconstruction And Display, Cell Counting. With Dongle	•	
Cable	Control Cable, USB-CAN Adapter	•	
Platform	Professional Optical Shock Resistant Platform, Tabletop Size > 1000x800mm, Made of High Magnetic Conductivity Stainless Steel 1Cr17 Material	○	A54.0968
Photo Port	Left Side Photo Port, Light Split 100:0 /0:100, Field of View 16mm, With Built-in 1x C-Mount	•	A55.0960
	Right Side Photo Port, Light Split 100:0 /0:100, Field of View 16mm, With Built-in 1x C-Mount	○	A55.0960-R
Camera	5.0M Color 2/3” CMOS SONY IMX264, 35fps, USB3.0	•	A59.0960-5.0M
	20M Color 1.1” CMOS SONY IMX541, 17.5fps, USB3.0	○	A59.0960-20MC
	20M Monocolor 1.1” CMOS SONY IMX541, 17.5fps, USB3.0	○	A59.0960-20MM
Adapter	0.65x C-Mount, Focus Adjustable	○	A55.0930-65
	1.0x C-Mount, Focus Adjustable	○	A55.0930-10
Package	Strong Master Carton	•	

A64.0960 More Pictures

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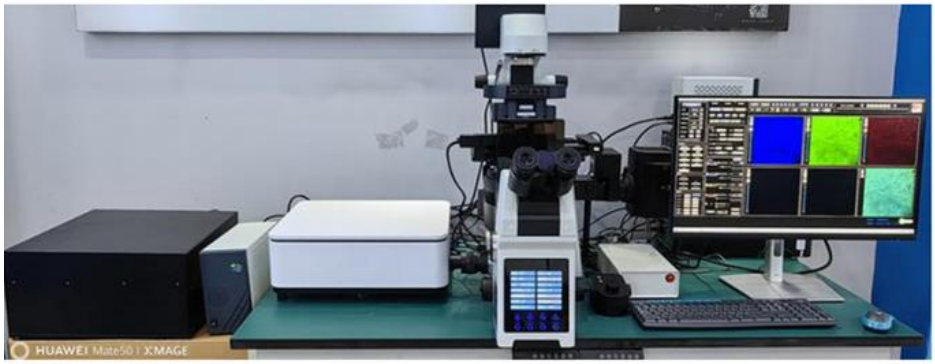

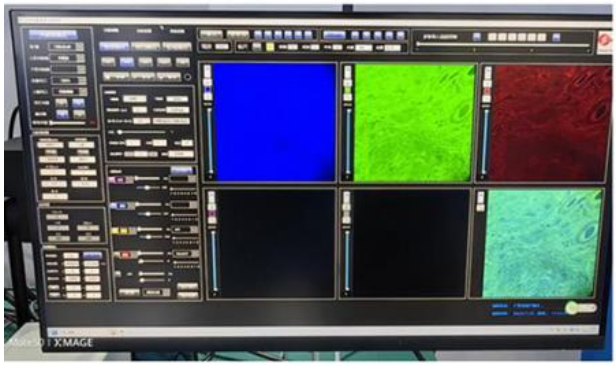

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