# Onto Edu A16 2253 Fluorescence Microscope Infinity Plan Achromatic Ontical

## Opto Edu A16.2253 Fluorescence Microscope Infinity Plan Achromatic Optical System

#### **Basic Information**

Place of Origin: China
Brand Name: OPTO-EDU
Certification: CE, Rohs
Model Number: A16.2253
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: Ultra Wide Field, Diopter Adjustable 10 X/

FN=23mm With Eyecup

Nosepiece: 6 Holes Manual Operating Nosepiece
 Objective: Infinity Semi-APO FL Objective, Cover

Glass- 0.17

• Focusing: Focusing Range: 27mm Coaxial Coarse And

Fine Focusing System With Safety Stop Lock

Ring & Tension Adjustable

Working Stage: Manual Operating Working Stage Nano Anti-

Wear Ceramic Coating Surface Right Hand XY Moving Knob With Damping Adjustment

Ring

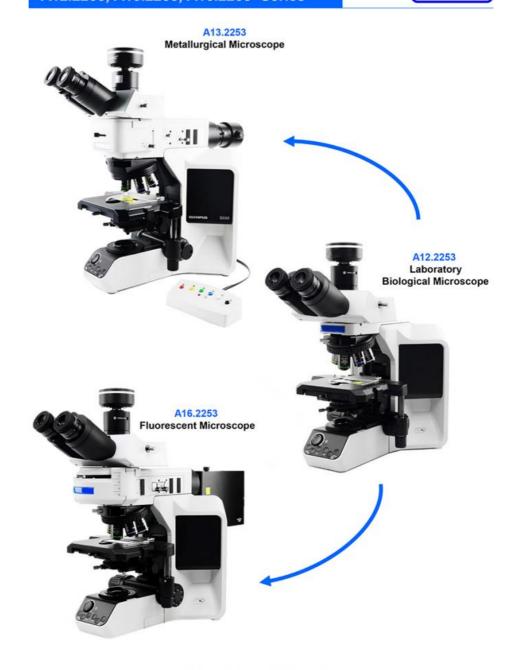
• Condenser: Abbe Condenser N.A=1.1 4X~100X

Highlight: A16.2243 Fluorescence Microscope,
 Infinity Plan Achromatic Optical System opto

edu

, opto edu microscope





A12.2253, A13.2253, A16.2253 Details

**OPTO-EDU** 



#### **▶** Trinocular Head

Trinocular Ultra Wide Filed, 30 °Inclined, Rotatable Upright Image, Light Split: (E0/P100, E50/P50), And Another Version: (E0/P100, E50/P50, E100/P0)

#### **▶** Diopter Adjustable Eyepiece

Interpupillary:50mm-80mm, Diopter Adjustable -2~+8°With Eyecup, There are three specifications Of Filed Number (FN = 23mm, FN = 25mm, FN = 26.5mm), Dia.30mm.





#### **Nosepiece**

6 Holes Coded Manual Operating Nosepiece, RMS

➤ Working Stage

Manual Operating Stage,3"X2",Nano Anti-wear Ceramic Coating
Stage, Right-handed XY Coaxial Adjustment with Damping Adjustment Ring

#### **▶** Achromatic Objective

Infinity Plan Achromatic Objective 4x, 10x, 20x, 40x, 100x





#### Condenser

Abbe Condenser, N.A=1.1,4X~100X

#### ► Light Source

SUPERMLEDTM Large Power Wide Color Gamut LED Light House,60000 Hours,4500K Color Temperature

#### **▶** Button Control Magnification Switching

By touching the button on the body, the magnification of the objective can be switched easily, avoiding pollution, wear, and looseness caused by long-term contact with the objective lens.





#### ► Metallurgical Illuminator

EPI Reflect Illumination, with BF & DF Module, With Polarizing Slot

#### ► Fluorescent Illuminator

Turret Epi-Fluorescent Illumination, 4 Holes, Build-In UV, Blue, Green Excitation Module, With Polarizing Slot



A12.2253, A13.2253, A16.2253 Optional





#### **High-Precision Electric Platform**

The electric platform (stepper motor) adopts the same connection and installation method as the ordinary manual stage. With only one bolt, the manual stage can be upgraded and replaced with an electric XY stage. The long X-axis travel can load 1-4 standard slides at same time. It comes with integrated control software, which can centrally operate and control all electronic components of the microscope.

#### **Encoded Electric Z-axis Accessories**

The encoded electric Z-axis accessories are composed of a dual-axis stepper motor and a multi-turn encoder, with a minimum step size of 0.8 degrees (360 degrees with 200 subdivisions). The encoder can provide real-time feedback of Z-axis coordinate data. The installation is simple and does not require any damage to the body structure. Only 2 screws are needed to complete the installation, and the structure is firm.





#### Multifunctional computer drive

It can achieve driving control of components such as the electric objective turntable (R), electric stage (XY), electric Z-axis (Z), camera external trigger, etc. It can communicate with the computer through RS232 and USB ports to achieve software control and programmed action processing.

#### Electric microscope joystick controller

Equipped with full control over the electric loading platform (XY), electric Z-axis (Z), and electric objective turntable (R), with high, medium, and low speed three speed switches. Change to precise control of XYZ, support up to 6 objective lenses for arbitrary switching, and need to be used in conjunction with M-DRV 200 multifunctional computer driver.



A12.2253, A13.2253, A16.2253 Details



#### **▶** Illumination System

Lumi Cite Ultra-High Brightness, SUPERMLED High-Power And Wide Color Gamut LED Light,60,000 Hours,4500K Color Temperature, Sunlight Simulated

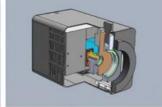




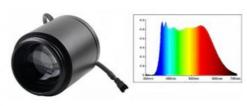
















Ultra High Power and Wide Spectral White LED Light Source

A12.2253, A13.2253, A16.2253 Features

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## Tool-free disassembly and assembly of reflective filter blocks.

The user pulls out the well and removes the casing in the horizontal direction, turns the turntable to the hole position that needs to be operated, gently pulls out the filter block or pushes it inward with the thumb and forefinger, covers the casing, and removes/installs it to complete.

#### Lens anti-mildew treatment

All optical lenses are made of environmentally friendly leadfree glass material, and the surface is treated with a special anti-mold coating, making them more durable in laboratory environments.

#### **Excellent Optical Properties**

The new ECGO infinite bidirectional chromatic aberration calibration system objective lens with a new optical architecture has three zoom distance designs of 45mm, 60mm, and 95mm, which can balance high resolution and long working distance, as well as special biology-specific 40x and 100x coverslip-free objective lenses, making it easier for users to capture microscopic structures of bacteria and chromosomes more clearly during coverslip-free sample detection.

#### Maintenance-free long-life light source

Transmission lighting uses SUPERMLEDIM large-scale LED light-emitting array packaged with multi-core stack technology, simulating solar light sources. The emission spectrum is uniform and continuous in the visible light range of 400nm to 650nm, with a constant temperature of 4500K. It has high-fidelity color reproduction ability for various stained specimens, especially for colors that are difficult to distinguish under ordinary LED lights such as cyan, purple, and pink, and has super strong color rendering ability.

#### **Antibacterial coating**

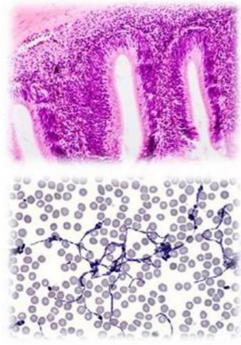
Microorganisms and viruses can be transmitted through contact, so we have treated all contact points with antibacterial additives to create a healthy laboratory environment.

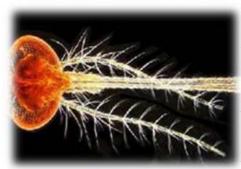
#### Automatic light intensity management function:

By operating the LIMVSET key and dimming, different objective lenses can be independently set for brightness in advance, so that the brightness can always be maintained in the best state regardless of the magnification switch in daily use.

#### **USB** output to computer control

Through the USB data port at the back of the fuselage, it can be directly connected to the computer, and various electronic components of the microscope can be controlled through software, including cameras, stage objective lens turntables, bright field transmission light sources, fluorescent light sources, electric diaphragms, and electric polarizers.





## Tissue slice observation does not require cumbersome operations and complex settings

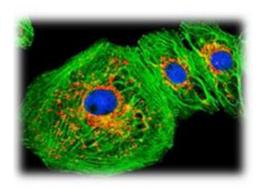
No special settings are required, and the factory mode can achieve perfect observation of tissue sections stained with conventional H. E staining; the specially designed simulated full-spectrum SUPERMLED<sup>TTM</sup> high-power light source combined with the Kohler lighting system can easily obtain clear images with equal brightness, high contrast, and soft color temperature from 4x to 100x observation, and can easily distinguish stained colors such as blue, purple, and pink that are difficult to restore with high fidelity under ordinary microscopes

## High-contrast objective lenses for observing blood cells, chromosomes, and microorganisms

The new ECGO infinite bidirectional chromatic aberration calibration system objective lens with a new optical architecture has three zoom distance designs of 45mm, 60mm, and 95mm, which can balance high resolution and long working distance, as well as special biology-specific 40x and 100x coverslip-free objective lenses, making it easier for users to capture microscopic structures of bacteria and chromosomes more clearly during coverslip-free sample detection.

## A tool for observing details of animal and plant packaging - dark field condenser

High-quality equal-path dark-field condenser provides more perfect dark-field illumination while suppressing the chromatic aberration of the objective lens, making the image edges of the observed sample sharp and clear, not only ensuring uniform background, but also ensuring uniform brightness throughout the field of view



#### Easy acquisition of high signal-to-noise ratio fluorescent images

Using a traditional fluorescence microscope to take high-quality fluorescence images takes up a long time for users: the background is not black enough, the signal is not strong enough, the details are unclear, and the quenching speed is too fast... Moreover, we use OD6 high transmittance IBS hard coating filter, self-developed ultra-high-power LumiCite series solid-state fluorescence dedicated light source, fluorite material high transmittance high-resolution fluorescence objective lens, electronic shutter, software programmed exposure control, making fluorescence shooting no longer difficult, and work efficiency has improved by leaps and bounds.



## Observation of polymer materials, starch, crystals, cosmetics, and traditional Chinese medicine - polarizing

For the above applications, high-performance polarizing accessories are essential. We use a seventh-generation thin polarizer with a higher extinction ratio and no change in color temperature to improve the orthogonal background contrast. The standard 45mm polarizer can be placed at the light source outlet, and the 30mm polarizer can be placed in the DIC slot of the objective lens turntable. It is extremely convenient to push in and pull out, and there is no need to increase the cost of purchasing additional slot accessories.

## A12.2253, A13.2253, A16.2253 Specification

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Item.	A12.2253 Laboratory Biological Microscope Series	Biological	<b>Fluorescent</b>	A13.2253 Metallurgical	Model. No
Optical	ECGO Infinity Plan Mutual Achromatic Optical	BF,DF,PH,P	DE EI	BF/DF,POL,D	
System	System, Confocal: 45mm	OL	DF,FL	IC	

	S53F Main Body,Coaxial Coarse & Fine Focusing, With Safety Stop Lock Ring & Tension Adjust Ring, Focusing Range 27mm, Coarse Stroke17.6mm, Fine Stroke 0.1m, Fine Scale				
	1µm				
	-Built-in Transmit Kohler Illumination, Light Intensity Management (LIM) System,				
	Brightness Memory Function, ECO Auto-Off	o-Off	•	•	A54.2201-S53
Main Body	Function, One Key Switch Reflect / Transmit				
•	Light				
Focusing	USB Port Connect Computer, Support				
Transmit Light	Software Auto Switch Measureing Scale & Camera Parameter For Each Objectives				
-igin	Main Body Supply Power Supply For Both				
	Transmit & Reflect Light				
	S53F2 Full <b>Motorized</b> Main Body				
	USB Port Connect Computer, Computer Can Fully Control Microscope Motorized	0	0	0	A54.2201-
	"XYZRLCC": X/Y/Z Stage Moving, Nosepiece,	O			S53F2
	Light, Condenser, Capture Photo & Video				
	A12.2253 Arm For Installing Nosepiece, Fixed	•	•	•	A54.2201-SA
	To Main Body By 4 Screws				710 1.2201 071
	Trinocular Head, Light Split (0/100, 50/50), FN=23mm	•	•	•	A53.2201-ST0
	Trinocular Head, Light Split (0/100, 50/50,				
	100/0), Ultra Wide FN=26.5	0	0	0	A53.2201-ST0
	1.0x C-Mount + Focus Adapter Ring, For	0	0	•	A55.2201-1xC
	Sensor 2/3"~4/3", Used With ST01, ST02				7100.2201 170
	0.63x C-Mount, For Sensor 1/1.8"~ 2/3", Used	0	0	0	A55.2201-63x0
	With ST01, ST02 0.5x C-Mount, For Sensor 1/2"~ 1/1.8", Used				
Head &	With ST01, ST02	0	0	0	A55.2201-05x
Video Adapter	Erect Image Trinocular Head, Light Split	0	0	0	A53.2201-ST0
пиарісі	(0/100, 50/50), Ultra Wide FN=26.5			Ŭ	A33.2201-310
	0.63x C-Mount, For Sensor 1/1.8"~ 2/3", Used	0	0	0	A55.2201-63xE
	With ST03  Erect Image Trinocular Head, Light Split				
	(50/50), Ultra Wide FN=26.5, Tiltable 0-45°	0	0	0	A53.2201-ST0
	1.0x C-Mount, For Sensor 2/3"~4/3", Used		0	0	AEE 0001 1×A
	With ST04	0	0	0	A55.2201-1xA
	0.63x C-Mount, For Sensor 1/1.8"~ 2/3", Used	0	0	0	A55.2201-63x
	With ST04 Ultra Wide Field 10x/23mm, Diopter				
	Adjustable -2~+8°, With Eyecup	•	•	•	A51.2201-102
	Ultra Wide Field 10x/25mm, Diopter				
Eyepiece	Adjustable -2~+8°, With Eyecup	0	0	0	A51.2201-1025
	Ultra Wide Field 10x/26.5mm, Diopter				A51.2201-
	Adjustable -2~+8°, With Eyecup	0	0	0	1026.5
	6 Holes Coded Manual Nosepiece, M20.32	•	•	/	A54.2202-S6
	Screw (RMS)				
	6 Holes Motorized Nosepiece, M20.32 Screw (RMS)	0	0	/	A54.2203-6
	5 Holes Manual Nosepiece, M26 Screw, For				A54.2202-
Nosepiece	BF/DF, Center Adjustable	/	/	•	UP5BD
	5 Holes Motorized Nosepiece, M26 Screw,	/	/	0	A54.2203-5BD
	For BF/DF	,	,	Ŭ	7104.2200 088
	5 Holes Motorized Nosepiece, M26 Screw, Center Adjustable	/	/	0	A54.2203-5CA
	PLCN Infinity Plan Achromatic Objective,				
	Cover Glass- 0.17				A51.2202
	4X, N.A=0.10, W.D=17mm, OFN=23	0	0	/	A51.2202-4
	10X, N.A=0.25, W.D=10mm, OFN=23	0	0	/	A51.2202-10
	20X, N.A=0.40, W.D=3mm, OFN=23	0	0	/	A51.2202-20
	40X, N.A=0.65, W.D=0.6mm, OFN=23	0	0	/	A51.2202-40
Objective	60X, N.A=0.80, W.D=3mm, OFN=23	0	0	/	A51.2202-60
Objective	100X, N.A=1.25, W.D=0.25mm, OFN=23  UPLN Infinity Plan Achromatic Objective,	<u> </u>	U	/	A51.2202-100
	Cover Glass- 0.17				A51.2203
	4X, N.A=0.13, W.D=17mm, OFN=26.5	•	0	/	A51.2203-4
	10X, N.A=0.30, W.D=10mm, OFN=26.5	•	0	,	A51.2203-10
	20X, N.A=0.50, W.D=3mm, OFN=26.5	•	0	/	A51.2203-20
	40X, N.A=0.75, W.D=0.6mm, OFN=26.5	•	0	/	A51.2203-40
	100X, N.A=1.3, W.D=0.25mm, OFN=26.5	•	0	/	A51.2203-100
	UPLFLN Infinity Plan Semi-APO FL				A5F.2201
	Objective, Cover Glass- 0.17			1	
	4X, N.A=0.15, W.D=12mm, OFN=26.5	0	•		A5F.2211-4

Fluorescent Objective	10X, N.A=0.30, W.D=9mm, OFN=26.5	0	•	,	A5F.2211-10
	20X, N.A=0.65, W.D=23mm, OFN=26.5 40X, N.A=0.9, W.D=0.7mm, OFN=26.5	0	•	/	A5F.2211-20 A5F.2211-40
	100X, N.A=1.3, W.D=0.3mm, OFN=26.5	0	•	/	A5F.2211-40 A5F.2211-100
	MPLFLN Infinity Plan Semi-Apo EPI BF			,	
	Objective				A5M.2211
	5X, N.A=0.16, W.D=16mm, OFN=26.5	/	/	0	A5M.2211-5
	10X, N.A=0.30, W.D=9mm, OFN=26.5	/	/	0	A5M.2211-10
	20X, N.A=0.45, W.D=3mm, OFN=26.5	/	/	0	A5M.2211-20
	50X, N.A=0.80, W.D=3mm, OFN=26.5	/	/	0	A5M.2211-50
	100X, N.A=0.90, W.D=1.1mm, OFN=26.5	1	/	0	A5M.2211-10
	20X-L, N.A=0.40, W.D=12mm, OFN=26.5	/	/	0	A5M.2211-20
	50X-L, N.A=0.60, W.D=9.5mm, OFN=26.5	/	/	0	A5M.2211-50
	100X-L, N.A=0.80, W.D=3mm, OFN=26.5	/	/	0	A5M.2211-10
Metallurgical BF Objective	Observation				A5M.2212
	2.5X, N.A=0.08, W.D=10mm, OFN=26.5	/	/	0	A5M.2212-2.5
	5X, N.A=0.16, W.D=15mm, OFN=26.5	/	/	0	A5M.2212-5
	10X, N.A=0.30, W.D=15mm, OFN=26.5	/	/	0	A5M.2212-10
	20X, N.A=0.55, W.D=5mm, OFN=26.5	/	/	0	A5M.2212-20
	20X-L, N.A=0.50, W.D=9mm, OFN=26.5	/	/	0	A5M.2212-20 A5M.2212-
	20X-L, N.A=0.45, W.D=12mm, OFN=26.5	/	/	0	20SL
	50X, N.A=0.85, W.D=1mm, OFN=26.5	/	/	0	A5M.2212-50
	50X-L, N.A=0.80, W.D=2mm, OFN=26.5	/	/	0	A5M.2212-50
	50X-L, N.A=0.55, W.D=8.7mm, OFN=26.5	/	/	0	A5M.2212-
		/	,		50SL
	100X-L, N.A=0.80, W.D=3.1mm, OFN=26.5	/	/	0	A5M.2212-10
	MPLFLN Infinity Plan Semi-APO EPI BD				A5M.2215
	<b>Objective</b> 5X, N.A=0.16, W.D=16mm, OFN=26.5	1	/	•	A5M.2215-5
	10X, N.A=0.30, W.D=9mm, OFN=26.5		/	•	A5M.2215-10
	20X, N.A=0.45, W.D=3mm, OFN=26.5		/	0	A5M.2215-20
	50X, N.A=0.80, W.D=3mm, OFN=26.5	1	/	0	A5M.2215-50
	100X, N.A=0.90, W.D=1.1mm, OFN=26.5	/	/	0	A5M.2215-10
	20X-L, N.A=0.40, W.D=12mm, OFN=26.5	/	/	•	A5M.2215-20
	50X-L, N.A=0.60, W.D=5mm, OFN=26.5	/	/	•	A5M.2215-50
Metallurgical	100X-L, N.A=0.80, W.D=3mm, OFN=26.5	/	/	•	A5M.2215-10
BF/DF Objective	MXAPO Infinity Plan Semi-APO FL EPI BD Objective High Resoluiton For Industry Fluorescent Semi-Conductor Observation				A5M.2216
	5X, N.A=0.15, W.D=15mm, OFN=26.5	/	/	0	A5M.2216-5
	10X, N.A=0.30, W.D=14mm, OFN=26.5	/	/	0	A5M.2216-10
	20X, N.A=0.55, W.D=4mm, OFN=26.5	/	/	0	A5M.2216-20
	50X, N.A=0.80, W.D=4mm, OFN=26.5	/	/	0	A5M.2216-50
	100X, N.A=0.90, W.D=1mm, OFN=26.5	/	/	0	A5M.2216-10
	20X-L, N.A=0.50, W.D=9mm, OFN=26.5	/	/	0	
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5	/	/	0	A5M.2216-50
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5	/	/ /	0	A5M.2216-50
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation	/ /	·	0	A5M.2216-50 A5M.2216-10 A5M.2231
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5	/ / /	0	0	A5M.2216-50 A5M.2216-10 A5M.2231 A5M.2231-2
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5	0	0	0 0	A5M.2216-50 A5M.2216-10 A5M.2231 A5M.2231-2 A5M.2231-5
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5	0	0 0	0 0 0	A5M.2216-50 A5M.2216-10 A5M.2231 A5M.2231-2 A5M.2231-5 A5M.2231-10
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5 20X, N.A=0.45, W.D=21mm, OFN=26.5	0 0	0 0	0 0 0 0 0 0	A5M.2216-10  A5M.2231  A5M.2231-2  A5M.2231-5  A5M.2231-10  A5M.2231-20
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5 20X, N.A=0.45, W.D=21mm, OFN=26.5 50X, N.A=0.75, W.D=12mm, OFN=26.5	0 0 0	0 0 0	0 0 0 0 0 0	A5M.2216-50 A5M.2216-10 A5M.2231 A5M.2231-2 A5M.2231-5 A5M.2231-10 A5M.2231-20 A5M.2231-50
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5 20X, N.A=0.45, W.D=21mm, OFN=26.5 50X, N.A=0.75, W.D=12mm, OFN=26.5 100X, N.A=0.80, W.D=6mm, OFN=26.5	0 0 0 0	0 0 0 0 0 0	0 0 0	A5M.2216-50 A5M.2216-10 A5M.2231 A5M.2231-2 A5M.2231-5 A5M.2231-20 A5M.2231-50 A5M.2231-10
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5 20X, N.A=0.45, W.D=21mm, OFN=26.5 50X, N.A=0.75, W.D=12mm, OFN=26.5 100X, N.A=0.80, W.D=6mm, OFN=26.5 20X-L, N.A=0.3, W.D=31mm, OFN=26.5	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0	A5M.2216-50 A5M.2216-10 A5M.2231 A5M.2231-2 A5M.2231-5 A5M.2231-10 A5M.2231-50 A5M.2231-10 A5M.2231-10
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5 20X, N.A=0.45, W.D=21mm, OFN=26.5 50X, N.A=0.75, W.D=12mm, OFN=26.5 100X, N.A=0.80, W.D=6mm, OFN=26.5 20X-L, N.A=0.3, W.D=31mm, OFN=26.5 50X-L, N.A=0.55, W.D=22mm, OFN=26.5	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	A5M.2216-50 A5M.2216-10 A5M.2231  A5M.2231-2 A5M.2231-5 A5M.2231-10 A5M.2231-10 A5M.2231-10 A5M.2231-50 A5M.2231-50
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5 20X, N.A=0.45, W.D=21mm, OFN=26.5 50X, N.A=0.75, W.D=12mm, OFN=26.5 100X, N.A=0.80, W.D=6mm, OFN=26.5 20X-L, N.A=0.3, W.D=31mm, OFN=26.5 50X-L, N.A=0.55, W.D=22mm, OFN=26.5 Adapter to Raise Height 40mm For A5M.2231 APO 95mm Objectives	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0	A5M.2216-50 A5M.2216-10 A5M.2231  A5M.2231-2 A5M.2231-5 A5M.2231-10 A5M.2231-10 A5M.2231-10 A5M.2231-50 A5M.2231-50
	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5 20X, N.A=0.45, W.D=21mm, OFN=26.5 50X, N.A=0.75, W.D=12mm, OFN=26.5 100X, N.A=0.80, W.D=6mm, OFN=26.5 20X-L, N.A=0.3, W.D=31mm, OFN=26.5 50X-L, N.A=0.3, W.D=31mm, OFN=26.5 50X-L, N.A=0.55, W.D=22mm, OFN=26.5 4dapter to Raise Height 40mm For A5M.2231 APO 95mm Objectives Manual Working Stage 3"x2", 255x160mm, Moving 55x75mm, Ultra Hard Nano Wearresistant Ceramic Coating, With Damping Adjust Ring (Same As Olympus)	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	A5M.2216-50 A5M.2216-10 A5M.2231  A5M.2231-2 A5M.2231-5 A5M.2231-10 A5M.2231-10 A5M.2231-10 A5M.2231-10 A5M.2231-10 A5M.2231-10 A5M.2231-10
LWD Objective Working	50X-L, N.A=0.85, W.D=1mm, OFN=26.5 20X-L, N.A=0.85, W.D=3mm, OFN=26.5  MPLSAPO Infinity Plan APO FL LWD Objective, Confocal 95mm For Large Sample, High Temperature Heating Sample Observation 2X, N.A=0.06, W.D=35mm, OFN=26.5 5X, N.A=0.15, W.D=45mm, OFN=26.5 10X, N.A=0.30, W.D=35mm, OFN=26.5 20X, N.A=0.45, W.D=21mm, OFN=26.5 50X, N.A=0.75, W.D=12mm, OFN=26.5 100X, N.A=0.80, W.D=6mm, OFN=26.5 20X-L, N.A=0.3, W.D=31mm, OFN=26.5 50X-L, N.A=0.55, W.D=22mm, OFN=26.5 50X-L, N.A=0.55, W.D=22mm, OFN=26.5 Adapter to Raise Height 40mm For A5M.2231 APO 95mm Objectives Manual Working Stage 3"x2", 255x160mm, Moving 55x75mm, Ultra Hard Nano Wearresistant Ceramic Coating, With Damping	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	A5M.2231-2

	Metal Sample Holder, 3"x2", With Metal Plate For Reflect Light	/	/	•	A54.2204-M32
	Metal Sample Holder, 3"X3", With Glass Plate For Reflect & Transmit Light	/	/	0	A54.2204-M33
	Metal Sample Holder, 4"X4", With Glass Plate For Reflect & Transmit Light	/	/	0	A54.2204-M44
	Abbe Condenser, N.A=1.1, 4x~100x	•	•	•	A56.2201-11
Condenser	Achromatic Aplanatic Condenser, N.A=1.4, 10x~100x	0	0	/	A56.2201-14
	Swing-out Condenser N.A=0.9, 1.25x~100x (1.25x~4x When Swing Out)	0	0	/	A56.2201-S
	SUPERMLED 10W LED Light House, Life Time 60000 Hours, Wide Color Gamut 4500K	•	•	•	A56.2204-1
Transmit Illumination	Color Temperature SUPERMLED 18W LED Light House, Life				
	Time 60000 Hours, Wide Color Gamut 4500K Color Temperature	0	0	0	A56.2204-2
	Epi Fluorescent Turret Illuminator, With 4 Position, With Polarizing Slot Lumi Cite 9100 Solid LED Extra Large Power	/	•	/	A5F.2201
	Illuminator, Preset 4 Wavelengths of Excitation, Wavelength 340~750nm, <b>80W</b> , Support DAPI, FITC, TRITC, TxRed, Cy5	/	0	/	A5F.2201-L91
	Solid LED Light Source Dimmer For Lumi Cite 9100	/	0	/	A5F.2201-LC9
	Lumi Cite 9300 Solid LED Extra Large Power Illuminator, Preset 4 Wavelengths of Excitation, Wavelength 330~750nm, <b>130W</b> , Support DAPI, FITC, TRITC, TxRed, Cy5	/	•	/	A5F.2201-L93
Reflect Fluorescent	Solid LED Light Source Dimmer For Lumi Cite 9300		•		A5F.2201-LC9
Illumination	USB 2.0 Cable Length 2m, Connect Illuminator to Controller or Computer	/	•	/	A50.2202-3
	Chinese Standard Power Adapter 220V/12V/120W DC, For Solid LED	/	•	/	A50.2203-5
	Illuminator		_	,	AFE 0004 OLV
	Solid LED Light Source Optical Adapter  UV Long Pass Exciter: BP340-390, Emitter:	/	•	/	A5F.2201-OLY A5F.2210-UVL
	BA420IF, Dichroic: DM410  B Long Pass Exciter BP460-495, Emitter:			,	A5F.2210-BL
	BA510IF, Dichroic: DM505  G Long Pass Exciter: BP530-550, Emitter:		•	/	A5F.2210-BL
	BA575I, Dichroic: DM570  Epi Metallurgical Reflect Illuminator. With BF	/	•	,	A31 .2210-GL
Reflect Metallurgical	& DF Module, With Polarizing Slot  5W LED Light House For Reflect Illuminator,	/	/	•	A5M.2201-SC
Illumination	Life Time 60000 Hours, 4500K Color Temperature	/	/	•	A5M.2201-LH
Dark Field	Dark Field Condenser (Dry), N.A=0.92, 10x~100x	0	0	/	A5D.2201-D
Dank Field	Dark Field Condenser (Oil), N.A=1.4, 10x~100x	0	0	/	A5D.2201-I
	Universal Turret Phase Contrast Condenser, Support BF, DF, PH1, PH2, PH3	0	0	/	A5C.2201
	Green Filter For Phase Contrast Dia.45mm	0	0	/	A5C.2201-G45
	UPLFLN Infinity Plan Semi-APO FL Phase Contrast Objective			/	
Phase	4x, N.A=0.15, CG=0.17, W.D=12mm, OFN=26.5	0	0	/	A5C.2212-4
Contrast	10x, N.A=0.30, CG=0.17, W.D=9mm, OFN=26.5	0	0	/	A5C.2212-10
	20x, N.A=0.65, CG=0.17, W.D=2.3mm, OFN=26.5	0	0	/	A5C.2212-20
	40x, N.A=0.90, CG=0.17, W.D=0.7mm, OFN=26.5 100x, N.A=1.30, CG=0.17, W.D=0.3mm,	0	0	/	A5C.2212-40
	OFN=26.5 Polarizing Round Working Stage 360°	0	0	/	A5C.2212-100
	Rotatable With Scale, Center Adjustable, Work With Center Adjustable Nosepiece	0	0	0	A54.2204-R
	Transmit Polarizer Filter Dia.45mm, Put On Transmit Light Port	0	0	0	A5P.2201-P45
D 1	Transmit Analyzer, Insert In Nosepiece Slot	0	0	0	A5P.2201-P30
Polarizing	Transmit Analyzer Holder	0	0	0	A5P.2201- P45H
	Reflect Polarizer Slide, Insert In Reflect Illuminator Slot.	/	0	0	A5P.2201-A

	Reflect Analyzer Slide, Rotate 360°, Insert In Reflect Illuminator Slot.	/	0	0	A5P.2201-A3
DIC	DIC Slider For Reflect Light	/	/	0	A5C.2210
Camera	3.0M USB 2.0 Camera, Sony 1/2" Color CMOS, Work With 0.5x C-Mount	0	0	0	A59.2271-3M
	6.3M USB 3.0 Camera, Sony 1/1.8" Color CMOS, Work With 0.5x/0.63x C-Mount	0	0	0	A59.2271-6.3M
	20M USB 3.0 Camera, Sony 1" Color CMOS, Work With 1x C-Mount	0	0	0	A59.2271-20M
	8.0M USB 3.0 Fluorescent Camera, Sony 1" Color CMOS, Work With 1x C-Mount	/	0	/	A59.2272-8M
	12.8M USB3.0 Fluorescent Camera, Sony 1" Color CMOS, Work With 1x C-Mount	/	0	/	A59.2272- 12.8M
Motorized System	Motorized System, Work WithS53F Motorized Body, Need To Order Full Set:				
	Motorize X/Y Stage, Stepper Motor Eliminating Gaps Ball Screw, Moving 118x76mm	0	0	0	A54.2206-30
	4 Slides Holder For Motorized Stage	0	0	0	A54.2206- 30SH4
	Motorized Z Axis With Coded System, Directly Install On S53F Body	0	0	0	A54.2207-3
	Quarc Controller, Support PC Control XYZ Motorized Stage + <b>Motorized Nosepiece</b>	0	0	0	A54.2208-M200
	Toton Joystick, Directly Control XYZ Motorized Stage + Motorized Nosepiece	0	0	0	A54.2208-MCP
Other	Immersion Oil 8ml, Reflect Ratio=1.518, Low Viscosity (135CST)	•	•	•	A50.2201-1
	Chinese Standard Power Adapter 220V/24V/36W DC	•	•	•	A50.2203-2
	Dust Cover	•	•	•	A50.2204-1
	Latex Gloves	•	•	•	A50.2204-2
	Hexagonal Tool Kit 3#, 4#	•	•	•	A50.2204-3
	Packing Carton	•	•	•	A50.2204-5

## A12.2253, A13.2253, A16.2253 Accessories

## OPTO-EDU



A54.2201-S53F Manual Main Body



A54.2201-S53F2 Full Motorized Main Body



A54.2201-SA



A53.2201-ST01



A53.2201-ST02



A55.2201-1xC



A53.2201-ST03



A53.2201-ST04



A55.2201-1xA



A55.2201-63xA



A55.2201-63xB



A55.2201-63xC



A55.2201-05xC









A51.2201-1023

A51.2201-1025

A51.2201-1026.5

A54.2202-S6









A54.2203-6

A54.2202-UP5BD

A54.2203-5BD

A54.2203-5CA











A51.2202 (PLCN Infinity Plan Achromatic Objective)











A51.2203 (UPLN Infinity Plan Achromatic Objective)











A5F.2211 (Fluorescent Objective: UPLFLN Infinity Plan Semi-APO FL Objective)



A5M.2231 (LWD Objective: MPLSAPO Infinity Plan APO FL LWD Objective)



A5M.2211 (Metallurgical BF Objective: MPLFLN Infinity Plan Semi-Apo EPI BF Objective)



A5M.2212 (Metallurgical BF Objective: NEOPLAN Infinity Semi-APO FL EPI BF Objective)



A5M.2215 (Metallurgical BF/DF Objective: MPLFLN Infinity Plan Semi-APO EPI BD Objective)



A5M.2216 (Metallurgical BF/DF Objective: MXAPO Infinity Plan Semi-APO FL EPI BD Objective)



A5C.2212 (Phase Contrast Objective: UPLFLN Infinity Plan Semi-APO FL Phase Contrast Objective)







A54.2204-O32

A54.2204-O44

A54.2204-SH







A54.2204-M32

A54.2204-M33

A54.2204-M44











A56.2201-S

A56.2201-11

A56.2201-14

A56.2204-1

A56.2204-2







A5F.2201

A5F.2201-L93

A5F.2201-L91









A5F.2201-LC93

A5F.2201-LC91

A50.2202-3

A50.2203-5









A5F.2210-BL

A5F.2210-GL

A5F.2210-UVL









A5M.2201-SC

A5M.2201-LH1

A5D.2201-D

A5D.2201-I











A54.2204-R

A5C.2201

A5C.2201-G45

A5P.2201-P45

A5P.2201-P30











A5M.2231-HA

A5P.2201-A

A5P.2201-A3

A5P.2201-P45H

A5P.2210











A59.2271-3M

A59.2271-6.3M

A59.2271-20M

A59.2272-8M

A59.2272-12.8M











A54.2206-30

A54.2206-30SH4

A54.2207-3

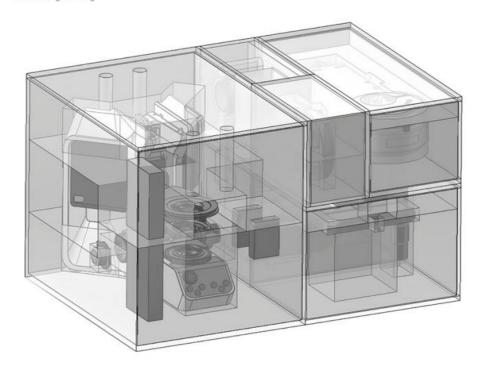
A54.2208-M200

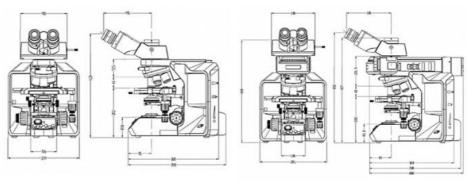
A54.2208-MCP

## A12.2253, A13.2253, A16.2253 Dimension



Carton Box: 695mm X 480mm X 435mm Gross Weight: 30kg

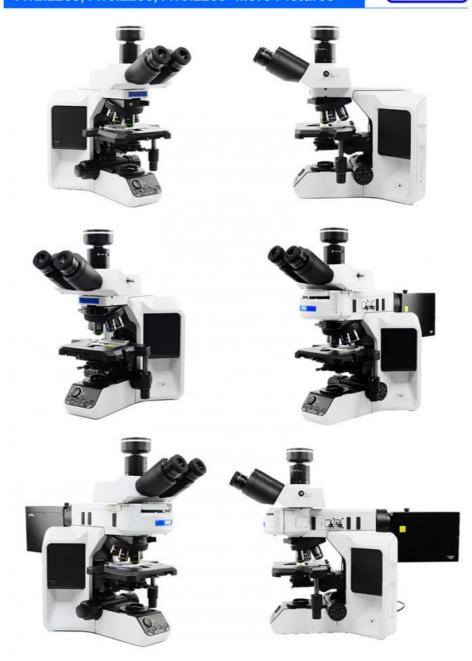




Unit: mm

## A12.2253, A13.2253, A16.2253 More Pictures

OPTO-EDU



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