12.0M 1/1.7" Microscope Accessories OPTO-EDU A59.4940-12M 5G WIFI Digital Microscope Camera

Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A59.4940
- 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

Teacher Side Master 5G WiFi (11ac) ViMatrix + Microscope Camera For Teacher

+

Student Side Vimatrix Mini + Microscope Camera For Student

Product Specification

- Resolution: 12.0M
- Maximum Resolution: 4000 X 3000 (2,073,600 Pixels)
- Sensor Optical Format: 1/1.7'' (6.058mm(H) X 4.415mm(V))
- Pixel Size: 1.85µm X 1.85µm
- Dynamic Range: >80dB
- SNR(Signal Noise Ratio): ≥50dB
- Spectral Characteristics: 380~650nm
- Exposure Capability: Real-time Auto, Single Auto, Manual Adjustment
- White Balance: Real-time Auto, Single Auto, Manual Adjust RGB Seperately
- Record Format: Resolution:4000x3000
- Highlight: **microscope accessory**, **parts of the microscope**, **compound microscope parts**

Microscope Camera For Teacher

More Images

Teacher Side Master 5G WiFi (11ac) ViMatrix

Student Side Vimatrix Mini

12.0M 1/1.7" Microscope Accessories OPTO-EDU A59.4940-12M 5G WIFI Digital Microscope Camera

New Generation 5G Wifi(11ac) High Speed
Resolution 2.0M/5.0M/8.0M/12.0M
Support Four Major Systems: Windows, Mac, Ios, And Android
Self-built LAN, High-speed And Stable Date Transmission
Independent Camera Desinged For Rapid Upgrades In The Future

Smartphones, tablets, and laptops are the carriers of modern networked knowledge. A59.4940 5G WiFi (11ac) Interactive Microscope Classroom System gives us a great sharing platform that liberates you from device or location and give you unlimited access and function to knowledge -making learning fun and engaging us in the 21ist technolo-gy. Let's face it, everybody that has a smartphone /tablet are walking computers with access to data on moments notice via text or verbal commands. The future is here. It only takes a microscope, a WiFi camera and an App to let student / teacher collaboration meet anywhere. Where the students take this technology from here is the most exciting part.We have successfully integrated every microscope in the classroom with this new technology.

Product Description

Student Camera	2.0M	5.0M	8.0M	12.0M
Teacher Camera	2.0W	5.0W	8.0W	12.0W
Resolution	2.0MP	5.0MP	8.0MP	12.0MP
Image Sensor	SONY IMX291 CMOS	SONY IMX178 COMS	SONY IMX274 COMS	SONY IMX226 COMS
Exposure Mode	Rolling Exposure	Rolling Exposure	Rolling Exposure	Rolling Exposure
Maximum Resolution	1920 x 1080 (2,073,600 Resolution)	2592 x 1944 (5,038,848 Resolution)	3840 x 2160 (8,294,400 Resolution)	4000x 3000 (12,000,000 Resolution)
Sensor Size	1/2.8"	1/1.8"	1/2.5"	1/1.7"
Pixel Size	2.9µm x 2.9µm	2.4µm x 2.4µm	1.62µm x 1.62µm	1.85µm x 1.85µm
Dynamic Range	128dB	>80dB	>80dB	>80dB
Signal-to-noise Ratio	30dB	≥50dB	≥50dB	≥50dB
Spectral Response	380-650nm			
Exposure Capability	Real-time Automatic, Single-time Automatic, Manual Adjustment			
White Balance	Real-time Automatic, Single-time Automatic, Manual R B Separately Adjusted			
Record Format	Photo Picture Format:JPG Resolution:1920x1080 Video Video Format:MOV Resolution: 1920X1080@50FPS(50Hz), 1920X1080@60FPS(60Hz), 1280x720@50FPS(50Hz), 1280x720@60FPS(60Hz)	Photo Picture Format:JPG Resolution:2592x1944 Video Video Format:MOV Resolution: 2592X1944@30 FPS, 2560X1920@30 FPS, 2048x1536@30 FPS, 1920x1080@30 FPS	Photo Picture Format:JPG Resolution:3840x2160 Video Video Format:MOV Resolution: 3840X2160@25 FPS, 2592X1944@25 FPS, 2048x1536@25 FPS	Photo Picture Format:JPG Resolution:4000x3000 Video Video Format:MOV Resolution: 4000X3000@15 FPS, 4096X2160@25 FPS, 3840x2160@25 FPS, 2592x1944@25 FPS

OPTO-EDU

5G Wifi Interactive Education System

A59.4940

- New Generation 5G Wifi(11ac) High Speed
- Resolution 2.0M/5.0M/8.0M/12.0M
- Support Four Major Systems: Windows, Mac, Ios, And Android
- Self-built LAN, High-speed And Stable Date Transmission
- Independent Camera Desinged For Rapid Upgrades In The Future

SYSTEM COMPOSITION

Smartphones, tablets, and laptops are the carriers of modern networked knowledge. A59.4940 5G WiFi (11ac) Interactive Microscope Classroom System gives us a great sharing platform that liberates you from device or location and give you unlimited access and function to knowledge -making learning fun and engaging us in the 21ist technolo-gy. Let's face it, everybody that has a smart-phone /tablet are walking computers with access to data on moments notice via text or verbal commands. The future is here. It only takes a microscope, a WiFi camera and an App to let student / teacher collaboration meet anywhere. Where the students take this technology from here is the most exciting part.We have successfully integrated every microscope in the classroom with this new technology.

01 Optical Microscope

02 Optional 0.5x Or 1x Adapter

03 Camera For Microscope

Camera For Teacher   Camera For Student

04 Teacher Side Master 5G WiFi (11ac) ViMatrix

The unique ViMatrix controls all cameras, and the teacher-side PC has all administrator rights of the system.

9 strong signal antennas, can cover the diameter of up to 50 meters of spherical environment, to meet the requirements of teaching activities.

Ultra-strong core to ensure stable real-time image and data transmission.

Provides 1 WAN to support Internet connection and 4 LAN ports available to connect with teacher's PC.

Multi-terminal data synchronization and transmission, the maximum transmission rate can reach 2600Mbps @ 5G Hz.

Master 5G WiFi (11ac) ViMatrix Model	Teacher Side Master 5G WiFi (11ac) ViMatrix
Interface	4 x 10/100/1000BASE-T Ethernet RJ45 Interface 1 x 10/100/1000BASE-T Ethernet RJ45 Interface
Button	Power On/Off
Lights	Power Light, Status Light
Antenna	9 High-gain Single-band Antennas
External Power Supply	AC100~240V/1.5A (Max)
Wireless Parameters	
Protocol Supported	5G WiFi IEE802.11ac
Frequency	5.180-5.825GHz
Signal Rate	2600Mbps
Transport Security	WPA/WPA2, WPA-PSK/WPA-PSK2 Encryption
WAN Type	Dynamic IP
Protocol	Supports IPV4 And IPV6

05 Student Side Vimatrix Mini

One high gain single frequency external antenna.

Friendly-designed three 5V 2A USB charging interface, availble for students to charge their smart devices in the classroom.

Three power ports for microscope camera .

Three cameras share one ViMatrix Mini.

Student - side 5G WiFi (11ac)ViMatrix Mini Model	Student Side Vimatrix Mini
Interface	3 x 10/100BASE -T Ethernet RJ45 Interface
Button	Power On/Off
Lights	Power Light, Status Light
Antenna	1 High-gain Single-band Antennas
External Power Supply	DC12V 5A
Wireless Parameters	
Protocol Supported	5G WiFi IEE802.11ac
Frequency	5.180-5.825GHz
Signal Rate	450Mbps
Transport Security	WPA/WPA2, WPA-PSK/WPA-PSK2 Encryption
Protocol	Supports IPV4 And IPV6

06 Teacher Computer

When used on a PC, you need to install the interactive software Micro WiFi EDU which included in this System .

Software: Micro WiFi EDU

07 5G WiFi (11ac) Supported Tablet And Smartphone (Please Bring Yours Or Purchase With Distributors)

APP: Micro WiFi EDU

08 Projection

The teacher side computer can use the projector for large-screen display, but also can use the lecturing mode of this system, real-time stream such as microscopic images, comptuer documents to the smart devices of students, so as to obtain high-quality teaching effect.

09 Audio System

Teachers and students can do one-to-one voice communication; to ensure audio quality, dedicated high-quality microphone for teachers is provided by designated agents;students can use their own headphones.

10 Classroom Requirements

Student desks requirements: please provide enough physical space to the student microscope and Vimatrix Mini, 3 student microscope cameras share one Vimatrix Mini. It is recommended that three student cameras have a physical distance of less than 2 meters . Two mains outlets should available (rated output voltage is AC 100-240V).

THREE INTERACTIVE SYSTEM SOLUTIONS

One microscope vs. 1 - 8 smart devices.
Suitable for small laboratory / class / workshop, etc.

1080P FULL HD **2.0MP** / **5.0MP**
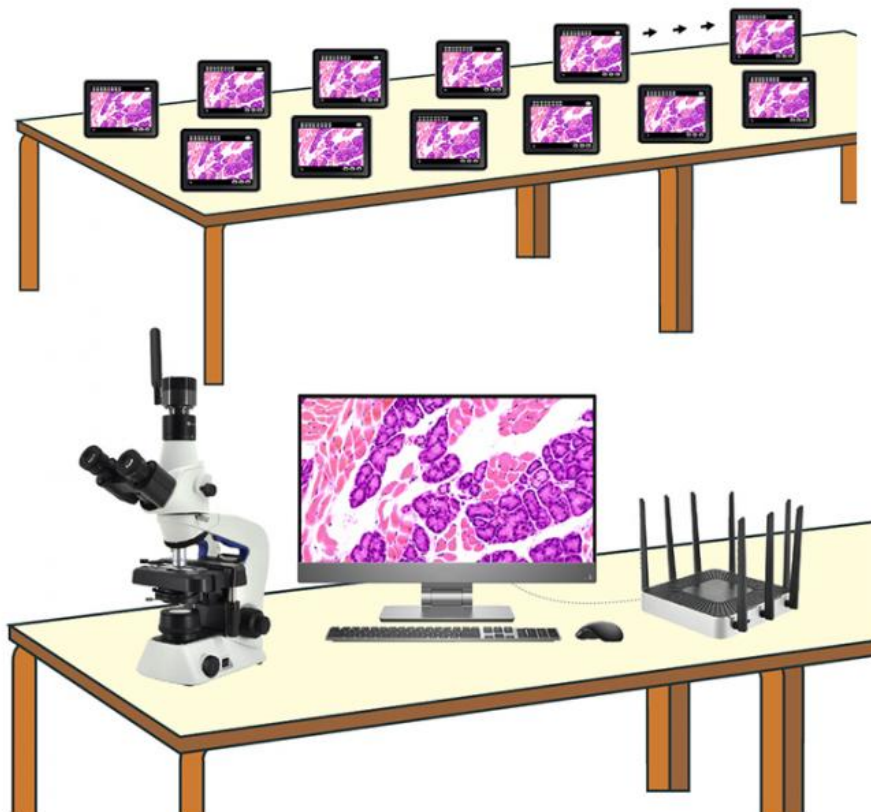
4K ULTRA HD **8.0MP** / **12.0MP**

Solution:
1.5G WiFi (11ac) camera (choose from the following models) :
12.0M, 8.0M, 5.0M, 2.0M(please refer to the specifications of corresponding models)
2.Windows PC software: Micro WiFi Lab
3.Smart devices applications: Micro WiFi Lab
4.Smart devices (purchased with a distributor or provide for oneself) : support iOS, Android and Windows systems;
5.Hardware requires 5G WiFi(11ac) while laptop or desktop without 5G WiFi(11ac) requires an external network card.

One microscope vs. 11-50 smart devices.
Suitable for large and medium-sized laboratories / classrooms /seminars and so on.

Solution:
1.5G WiFi (11ac) camera (choose from the following models) :
12.0M, 8.0M, 5.0M, 2.0M(please refer to the specifications of corresponding models)
2.Master ViMatrix Teacher Side
3.Windows PC software: Micro WiFi EDU
4.Smart devices applications: Micro WiFi EDU
5.Smart terminal (purchased with the agent or provide for oneself) : support iOS, Android and Windows systems;
6.Hardware requires 5G WiFi(11ac) while laptop or desktop without 5G WiFi(11ac) requires an external network card.

12-60 microscope vs. 12-60 smart devices.
It is suitable for the microscope education activities of 12-60 people in universities, research institutes, hospitals and so on.

5G WIFI INTERACTIVE EDUCATION SYSTEM LAYOUT

Real Time Images Under Student Microscope Will be Transmitted By 5G WiFi To Teacher Side Computer, Shown All In One Screen. Student Can View His Micro Image On Any Smart Device Like Mobile Phone, iPad, iPhone.

Teacher Side: Master 5G WIFI ViMatrix + Teacher WIFI Camera + Teacher Interactive Software Micro WiFi EDU + Microscope

+

Student Side: 5G WIFI Vimatrix Mini + Student Camera + Student Smart Device App Micro Wifi EDU + Microscope
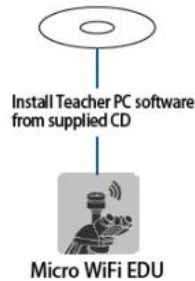
TEACHER INTERACTIVE SOFTWARE MICRO WIFI EDU

Six main interactive teaching methods allows arbitrary composition of use

• User-friendly interface with icons, easy to identify and quickly use.
• Each function has been designed to be very accessible and helpful to education and research.
• Unique black background, eliminate miscellaneous light interference, improve microscope image recognition.

Scope of applications:

✓ Education teaching
✓ Cell Lab
✓ Pathological Studies

✓ Blood Science
✓ Parasite Science
✓ Microbiology

✓ Material analysis
✓ Environmental studies
✓ Food/Beverage Control

✓ General cytology such as agriculture, forestry, livestock

Install Teacher PC software from supplied CD

Micro WiFi EDU

Lecturing mode

The teacher PC screen or the selected student smart device screen is streamed to all student smart devices synchro-nously.
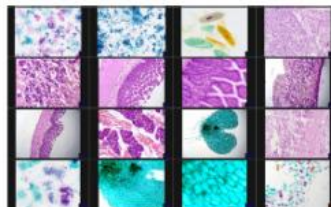
Lecture materials such as PPT/ WORD/ EXCEL are displayed on the smart device of students in real time to enrich the teaching content.
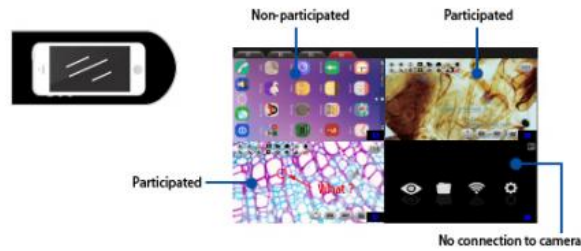
The operation process of the teacher PC or the selected student smart device is displayed to all student smart devices synchronously.

Monitor live-image under microscope camera

Teachers can easily capture all camera live-image, confirming that all cameras are connected successfully.

Monitor smart devices screen

Real-time monitoring of all student smart devices screen to ensure that all students participate in learning. The students' annotations, measurements, and other operations in the APP are displayed on teacher's PC. The progress of the study can be checked at any time. The teacher can show the selected student smart devices screen to all students.
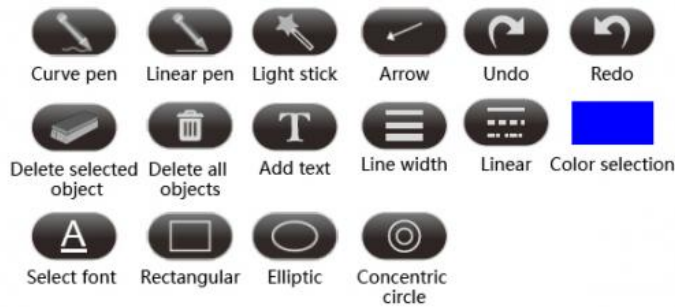
Demonstrate student works

Live-demo the selected camera video to the entire student smart devices.

Annotate student works

Annotate and edit selected images and documents, and send the operation process to all student smart devices in real time.

Annotation tools:

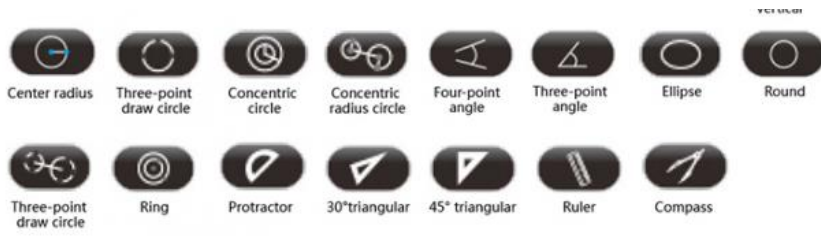|					
Curve pen	Linear pen	Light stick	Arrow	Undo	Redo
Delete selected object	Delete all objects	Add text	Line width	Linear	Color selection
Select font	Rectangular	Elliptic	Concentric circle		

Multi-screen comparison teaching

- Static picture comparison

- Dynamic Video comparison

- Static vs. dynamic mixing comparison

- Support for cross-window annotating

- Support teacher-to-peer comparison with 06 selected students

● Interactive shortcuts

- Multi-page camera monitoring window, capturing the teacher-side image and all student-side real-time image simultaneously.
- Take picture, record, screen-capture, screen-record for single or multiple student-side images.
- Smart settings for camera : restore all camera default parameters; Restore all camera default names;
Disable parameters adjustment on all smart devices.
Modify the camera name; restore the current camera default name.
- The teacher receives students ' voice and answers one-on-one questions.
- Delete all documents with one click and reset the system with one click (convenient for next class teachers and students).
- Smart devices black and white list management: delete all white list and blacklist; allow Smart devices authorization message popup;The smart device is authorized to join into the system in order. Check all authorized samart devices list.
- 23 measurement tools to meet basic teaching requirements.

Linear	Parallel	Double parallel line	Stitch	Rectangular	Polygon	Arc	Three-point vertical

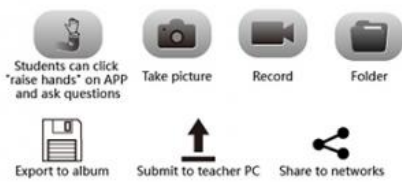|							
Center radius	Three-point draw circle	Concentric circle	Concentric radius circle	Four-point angle	Three-point angle	Ellipse	Round
Three-point draw circle	Ring	Protractor	30°triangular	45° triangular	Ruler	Compass	

Teacher-side mobile Mini PC (optional)

The mobile Mini PC has the same control and functions as the teach-er-side PC, enabling easy mobile teaching in the classroom.

STUDENT SMART DEVICE APP MICRO WIFI EDU

Scan "student seat QR code" within the APP

Scan "APP QR code" to install APP

- Scan supplied "student seat QR code" to access micro image directly.
- Take photos / videos and record important content in real time.
- Annotate, measure, doodle, add pictures, improve learning efficiency.
- The student smart devices and the teacher-side PC can send each other voice realizes individual counseling.
- Generates learning / research reports within student APP easily and can sent to teacher's email immediately.

Tool bar

Students can click "raise hands" on APP and ask questions	Take picture	Record	Folder
Export to album	Submit to teacher PC	Share to networks	

Annotation tools

Select	Move	Add text	Add a picture	Hand-draw	Eraser	Rotate	Delete	Line
Single-arrow	Round	Oval	Rectangular	Rounded radius	Protractor	Linear measurement	Calibration

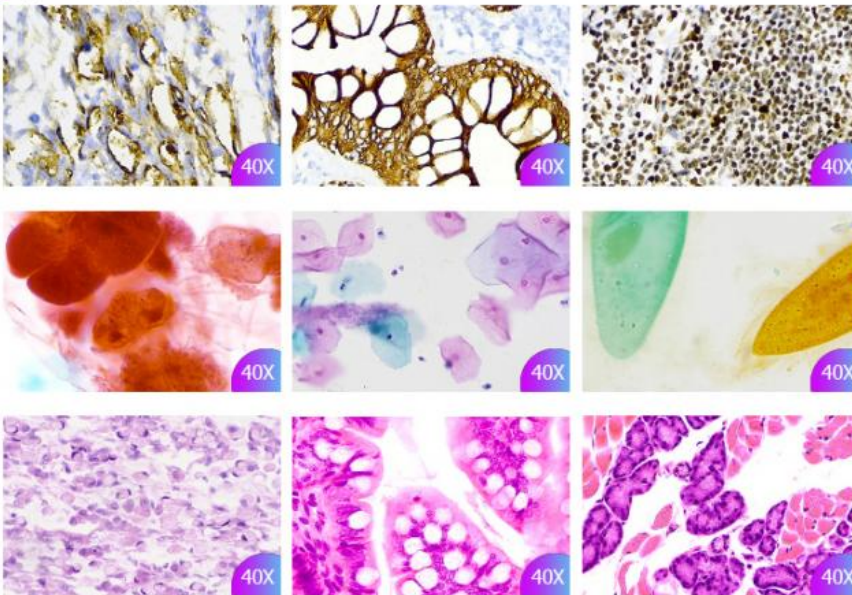| Software Operating Requirements	
System Requirements	Microsoft® Windows® 7 / 8 /8.1/10(32 & 64 bit)
	CPU: Intel i5 Quad-core 3.0GHz Or Better(for 2.0MP /5.0MP/8.0MP) Intel i7 Quad-core 3.6GHz Or Better(for 12.0MP)
	Memory: 8G Or Above
	At Least 10GB Of Available Hard Disk Space
	Wireless Network Card(Support 5G WiFi IEE802.11ac)

iOS Requirements	iPhone X/ 8/ 8 Plus/7/ 7 Plus/6s/6s Plus/ 6/6 Plus
	iPad Pro(12.9 Inches,2nd Generation)/(12.9 Inches,1st Generation)/(10.5 Inches)/(9.7 Inches)
	iPad Air 2/iPad Mini 4 And Other New Devices That Support The 5G WiFi (11ac) Protocol
	iOS11.0 And Later System
Android Requirements	Android 5.0 And Later System
	CPU: Dual Core 1.7GHz And Later
	Memory RAM:2G Or More
	Storage ROM: 8G Or More Recommended

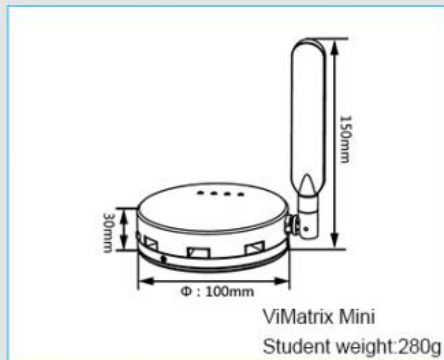# APPLICATION AND CASE
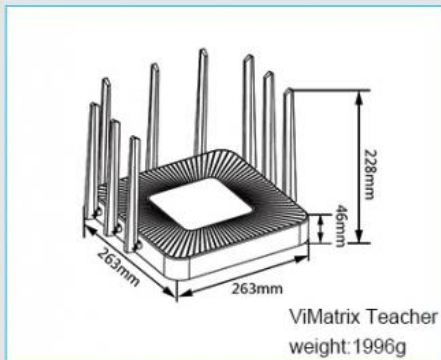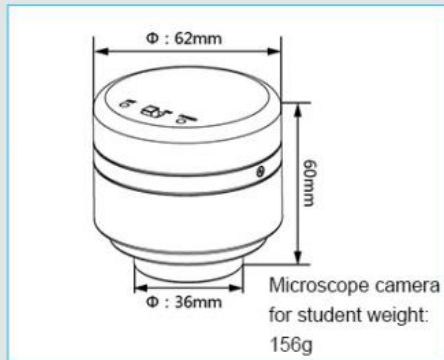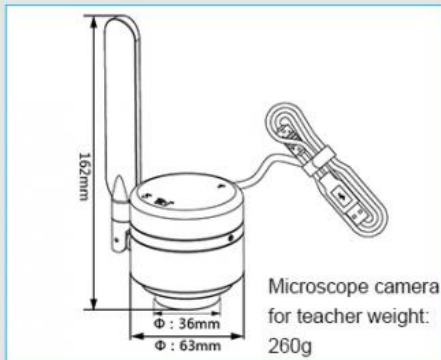
Example 5G Wifi Interactive Education System

System Image Samples

PACKING AND SHIPPING

Packing : Polyfoam Protection And Strong Carton
Shipping Time : 5~20 Days After Receive The Deposit

Microscope camera for teacher weight: 260g

Microscope camera for student weight: 156g

ViMatrix Teacher weight:1996g

ViMatrix Mini Student weight:280g

Company Information

OUR STRENGTH

◆ 25+ Yeas Professional Experience Know Microscopes Best

◆ 150+ Microscope & Accessory Manufacturers From China

◆ 200+ Hot Sale & Newest Update Micrscope Model Every Month

◆ 720+ Customers From All Over World Keep Rising

◆ 1200+ Microscope Models To Creat One-Stop Purchase Platform

◆ OPTO-EDU As Famous Brand For Microscope In China & USA

◆ Top Seller For Microscope on Alibaba Recommand To 99% User

◆ Most Professional Sale Team Supply Best Microscope Solution

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