



# 5G Wifi Interactive Education System Martix Router A59.4940 2.9μM X 2.9μM **Pixel Size**

#### **Basic Information**

. Place of Origin: China

Brand Name: CNOEC, OPTO-EDU

CE, Rohs · Certification: Model Number: A59.4940 • Minimum Order Quantity: 1 pc

• Price: FOB \$1~1000, Depend on Order Quantity Carton Packing, For Export Transportation · Packaging Details:

• Delivery Time: 5~20 Days

Payment Terms: T/T, West Union, Paypal

. Supply Ability: 5000 pcs/ Month



## **Product Specification**

Resolution: 2.0M,5.0M,8.0M,12.0M

Expose Mode: Rolling Shutter

1920 X 1080 (2,073,600 Pixels) Maximum Resolution: Sensor Optical Format: 1/2.8" (6.058mm(H) X 4.415mm(V))

· Pixel Size: 2.9µm X 2.9µm

• Dynamic Range: 128dB 30dB SNR(Signal Noise Ratio): Spectral Characteristics: 380~650nm

• Exposure Capability: Real-time Auto, Single Auto, Manual

Adjustment

. White Balance: Real-time Auto, Single Auto, Manual Adjust

**RGB** Seperately

Highlight: microscope accessory,

compound microscope parts



## More Images









#### Support Four Major Systems: Windows, Mac, Ios, And Android

Independent Camera Desinged For Rapid Upgrades In The Future

Self-built LAN, High-speed And Stable Date Transmission

Resolution 2.0M/5.0M/8.0M/12.0M

New Generation 5G Wifi(11ac) High Speed

Student Camera	2.0M	5.0M	8.0M	12.0M
Teacher Camera	_	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	(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:1920x 1080 Video Video Format:MOV Resolution: 1920X1080@50F PS(50Hz), 1920X1080@60F PS(60Hz), 1280x720@50FP S(50Hz), 1280x720@60FP S(60Hz)	FPS, 2560X1920@30 FPS, 2048x1536@30 FPS,	Resolution:3840x 2160 Video Video Format:MOV	Photo Picture Format:JPG Resolution:4000x 3000 Video Video Format:MOV Resolution: 4000X3000@15 FPS, 4096X2160@25 FPS, 3840x2160@25 FPS, 2592x1944@25 FPS

# 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 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.



#### Optical Microscope



#### Optional 0.5x Or 1x Adapter









Camera For Microscope





Camera For Teacher

Camera For Student



#### 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.



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			



#### Student Side Vimatrix Mini



One high gain single frequency external antenna.



Friendly-designed three 5V 2A USB charging interface, available 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			
Transport Security	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



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











## 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).

Software Operating Requirements			
	Microsoft® Windows® 7 / 8 /8.1/10(32 & 64 bit)		
System Requirements	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

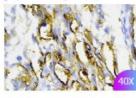
## Example 5G Wifi Interactive Education System

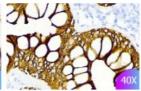


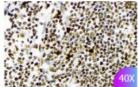




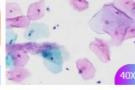
System Image Samples



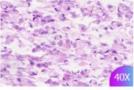




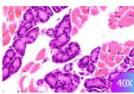
















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