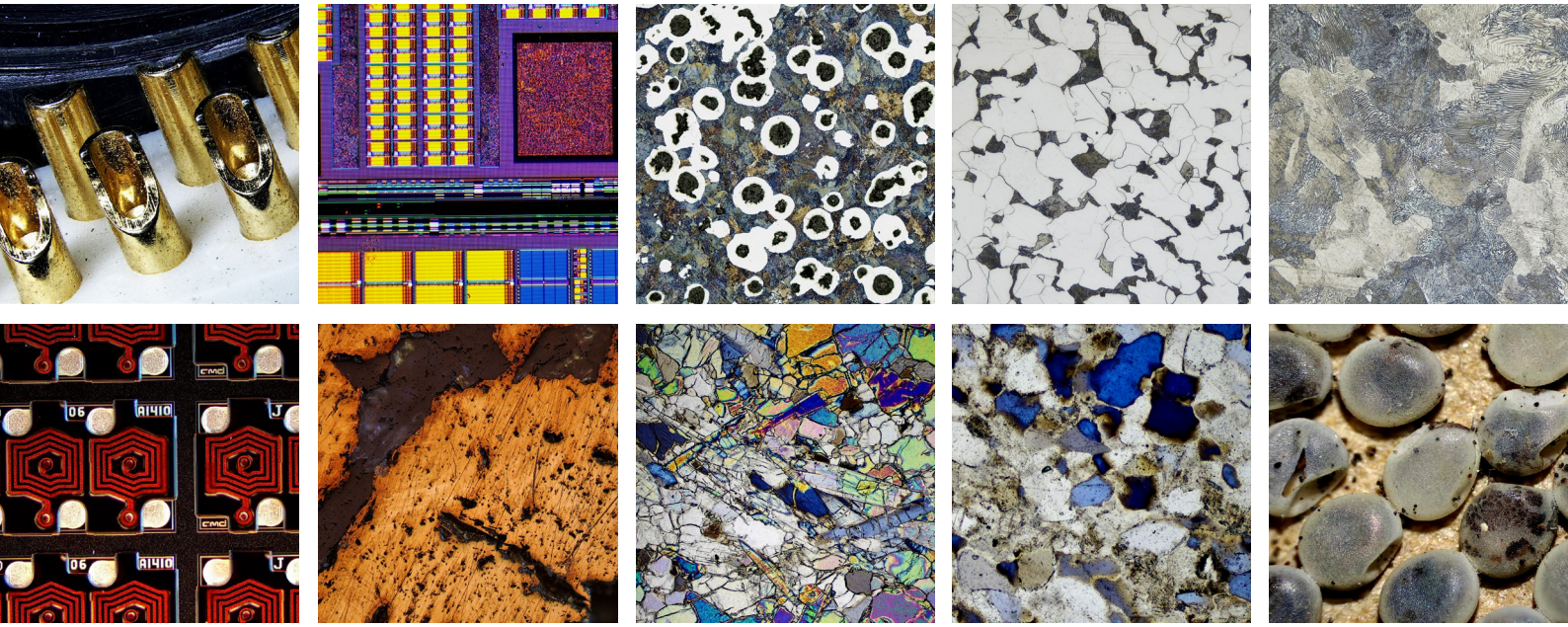
KoPa®

Microscope Camera Solutions
For Leica Industrial Microscope

INNOVATED FOR TOP BRAND MICROSCOPES

Create a Stunning Microscope Imaging System for You



https://www.ostec.com.cn/

For Trinocular Microscopes



Applicable Models:
DM750M,DM1750M,
DM2700M,DM4M,DM6M,
DM750P,DM2700P,DM4P.

Option A

Measuring Camera
With 0.43X tube lens

Option B

WiFi Camera
With 0.43X tube lens

Option C

Smart Camera
With 0.43X tube lens

Option D

Smart Display Camera
With 0.43X tube lens

Function Comparison

● Standard ○ Optional – N/A

	Option A	Option B	Option C	Option D
Built-in Android OS	–	–	●	●
Pre-installed Office suits	–	–	●	●
15.6''high color gamut monitor	–	–	–	●
Image output methods				
5G WiFi	–	●	●	●
USB	●	●	–	–
HDMI or DP	● HDMI	● HDMI	● DP	● DP
Network	●	●	–	–

Option A, B

- HDMI output comes with embedded software: KoPa View;
- Max 60 fps for 3840x2160 (4Kx2K) real-time preview, support snapshot and record video;
- Exclusive image modes for biological , industrial, fluorescence microscope to have accurate color reproduction;
- Option A: USB+HDMI or Network+HDMI output;
  Option B: USB+HDMI or WiFi+HDMI+Network output;
- Support depth of field fusion, stitching function (Windows software -KoPa Capture Pro);
- Support saving photos and videos to USB disk by using mouse and keyboard.

Option C, D

- Comes with a deeply customised Android operating system, with mobile version of office suit that including Word, Excel and PPT;
- Max 30 fps for 3840x2160 (4Kx2K) real-time preview, support snapshot and record video;
- Exclusive image modes for biological , industrial, fluorescence microscope to have accurate color reproduction;
- With depth of field fusion,manual focus, stitching , measurement and other functions;
- Option C: WiF+DP output;
  Option B: local on-screen display or WiFi+DP output;
- Support saving photos and videos to USB-disk by using mouse and keyboard.

■ For Inverted Microscopes

Applicable Model:
DMiLM.

Solution ①

Smart display camera
With 0.43X tube lens

Function Comparison

● Standard ○ Optional – N/A

	Solution①
Built-in Android OS	●
Pre-installed Office suits	●
15.6''high color gamut monitor	●
Image output methods	
5G WiFi	●
USB	–
HDMI or DP	● DP
Network	–

For Trinocular Stereo Microscopes

Applicable Models:
Ivestas 3, M125C.

Option A
Measuring Camera
With 0.43X tube lens

Option B
WiFi Camera
With 0.43X tube lens

Option C
Smart Camera
With 0.43X tube lens

Option D
Smart Display Camera
With 0.43X tube lens

Function Comparison

● Standard ○ Optional – N/A

	Option A	Option B	Option C	Option D
Built-in Android OS	–	–	●	●
Pre-installed Office suits	–	–	●	●
15.6''high color gamut monitor	–	–	–	●
Image output methods				
5G WiFi	–	●	●	●
USB	●	●	–	–
HDMI or DP	● HDMI	● HDMI	● DP	● DP
Network	●	●	–	–

For Binocular Stereo Microscopes

Applicable Models:
M50,M80,M125,M165.

Embedded beam splitter
With 0.43X tube lens

Can be matched with the following models

Option A
Measuring Camera
C-mount

Option B
WiFi Camera
C-mount

Option C
Smart Camera
C-mount

Function Comparison

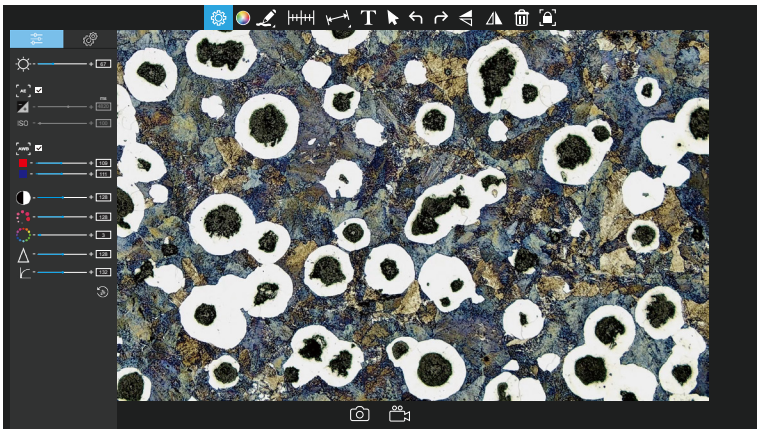
● Standard ○ Optional – N/A

	Option A	Option B	Option C
Built-in Android OS	–	–	●
Pre-installed Office suits	–	–	●
15.6''high color gamut monitor	–	–	–
Image output methods			
5G WiFi	–	●	●
USB	●	●	–
HDMI or DP	● HDMI	● HDMI	● DP
Network	●	●	–

Option A and B

- HDMI output comes with measurement tools (built-in OSD menu -KoPa View);
  Support saving photos and videos to USB-disk by using mouse and keyboard.

KoPa View



Main Functions of KoPa View					
	Settings		Text		Mirror
	Color settings		Select object		Delete
	Annotation tools		Cancel		Freeze image
	Calibration		Redo		Snapshot
	Measuring tools		Flip		Record video
Camera property control					
	Target brightness	AWB	White Balance		Acuity
AE	Automatic exposure		Contrast		Gamma
	Exposure time		Saturation		Restore default
ISO	Gain		Chroma		

15 measuring tools

Linear distance measurement
Circular measurement
Rectangular measurement
Three-point angle measurement
Parallel line spacing measurement
Polyline measurement
Polygonal measurement
Arc measurement
Three-point vertical line measurement
Four-point angle measurement
Ellipse measurement
Concentric radius circle center distance drawing circle measurement
Concentric circle measurement
Ring measurement
Crosses

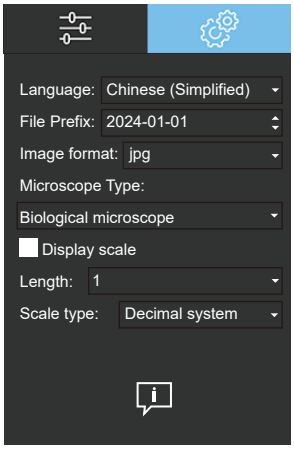
Annotation tools

Pencil Straight line Arrow Rectangle Ellipse

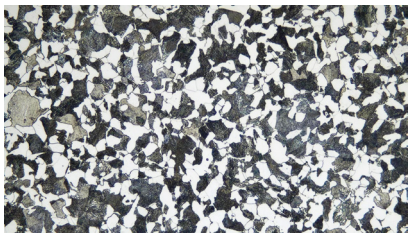
Dedicated image mode

Depending on the application of the microscope, the corresponding exclusive image mode can reproduce the image effect more accurately:

1. Biological microscope
2. Industrial microscope
3. Fluorescence microscope

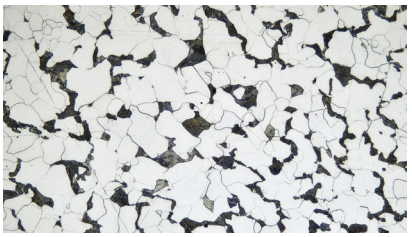


Industrial microscope



Carbon Steel (objective: 50X)

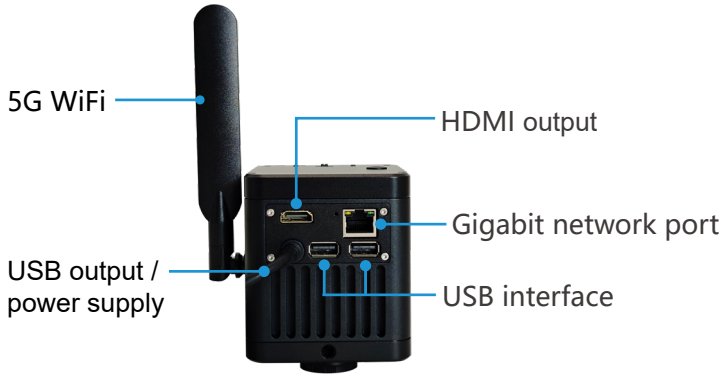
Grey Cast iron (objective: 50X)



Hypo eutectoid steel (objective: 50X)

Multiple image output modes

Option A: HDMI, USB, USB+HDMI, Network+HDMI Output;
Option B: HDMI, USB, WiFi, USB+HDMI, WiFi+HDMI+Network Output (USB and WiFi cannot output at the same time).



HDMI output

Connect the camera to a monitor or large TV via HDMI cable with OSD "KoPa View".

USB output

Connect the computer via USB /network cable by using software" KoPa Capture Pro".

Network output

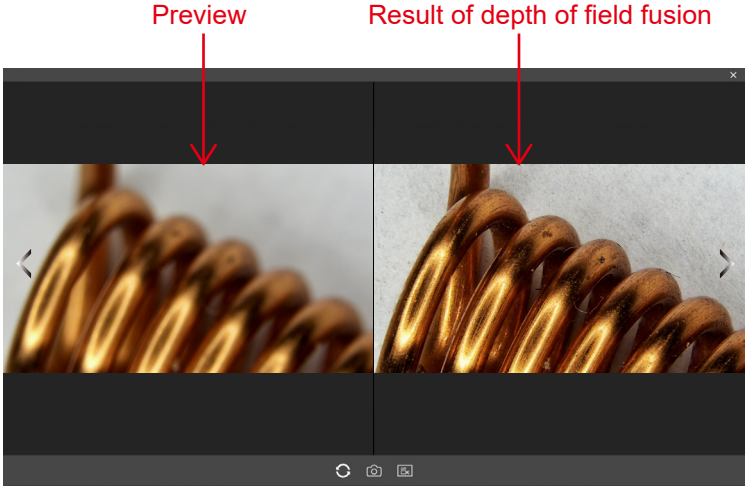
Connect the computer via network cable by using software" KoPa Capture Pro".

5G WiFi output(only option B)

Compatible with various devices and operating systems, including Windows, iOS, and Android. Mobile devices can access the system by scanning a QR code.
Connects to a computer via a network cable, suitable for wired long distance image transmission.

Depth of Field Fusion

This is achieved through Windows software: KoPa Capture Pro.
Breaking through the limitation of insufficient depth of field under high-magnification objective lens, you can obtain greater depth of field by adjusting the focal length, thus obtaining sharper images than real-time single-frame images, and supporting two saves in one shot.



Specifications

	Option A		Option B	
Applicable microscopes models	DM750M,DM750P	Ivestas 3,M125C	DM750M,DM750P	Ivestas 3,M125C
Models	MC2000		CF48	
C-mount category	AJ-C-08		BJ-C-08	
With 0.43X tube lens category	AJ-L-08	AJ-IA3-08	BJ-L-08	BJ-IA3-08
Physical resolution	8.3MP			
Image sensor	SONY IMX678 CMOS			
Sensor size	1/1.8''			
Pixel size	2μm×2μm			
A/D convertsion bit depth	12bit			
Exposure time	10us~10s			
Exposure mode	Rolling shutter			
ISO sensitivity	Equivalent to 100-12800			
Spectral response	400-650nm			
Exposure capability	Real-time automatic and manual adjustment			
White balance	Real-time automatic and manual RB adjustment			
Power supply	DC 5V 2A			
Video recordings	3840×2160@60fps 1920×1080@60fps			
HDMI output	3840×2160@60fps 1920×1080@60fps			
USB output	3840×2160@60fps 1920×1080@60fps			
Network output	3840×2160@60fps 1920×1080@60fps			
Software and App	Windows Software: KoPa Capture Pro, OSD: KoPa View, APP: KoPa WiFi Lab			

Accessories

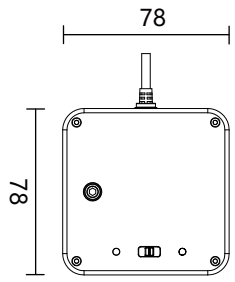
HDMI cable

USB mouse

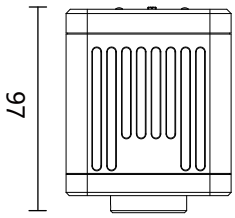
Dimensions(Unit:mm)

Option A

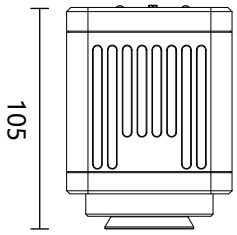
Net weight ≈0.8kg



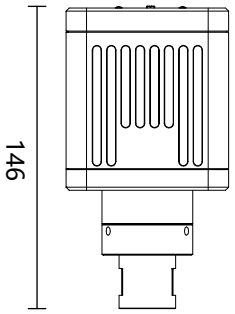
Camera with C-mount



Camera with 0.43X tube lens

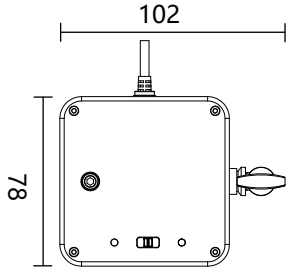


Camera with 0.43X tube lens

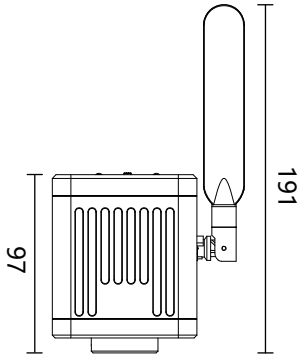


Option B

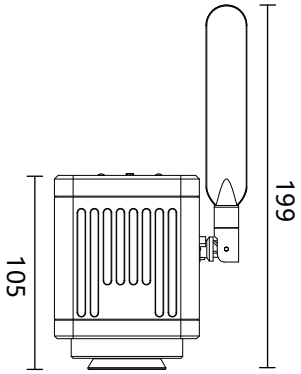
Net weight ≈1kg



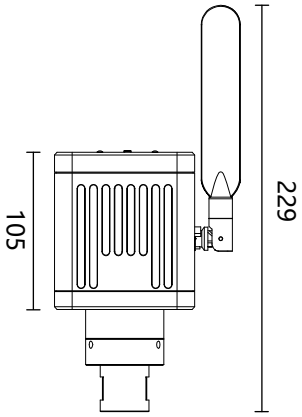
Camera with C-mount



Camera with 0.43X tube lens



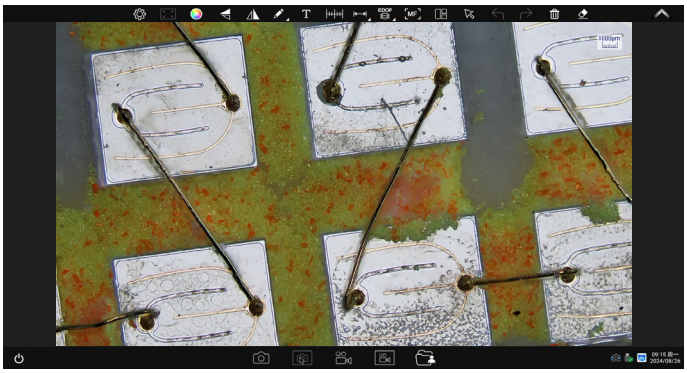
Camera with 0.43X tube lens



Option C and D

Comes with a deeply customised Android operating system, with mobile version of office suit that including Word, Excel and PPT;support saving photos and videos to USB-disk by using mouse and keyboard.

Built-in software: KoPa WiFi Lab AO



18 measuring tools

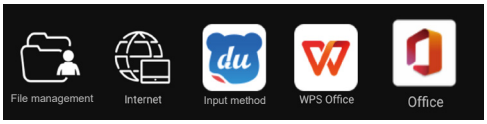
- Linear distance measurement
- Circular measurement
- Rectangular measurement
- Three-point angle measurement
- Parallel line spacing measurement
- Center distance measurement of double parallel lines
- Polyline measurement
- Arc measurement
- Three-point vertical line measurement
- Four-point angle measurement
- Ellipse measurement
- Circle radius measurement
- Three-point drawing circle measurement
- Concentric circle measurement
- Concentric radius circle center distance drawing circle measurement
- Ring measurement
- Manual count
- Crosses

Built-in 32GB hard drive for direct saving of images and videos. Saved images can be copied via WiFi or USB-drive.

Snapshot | Screen capture | Record | Screen record

File management

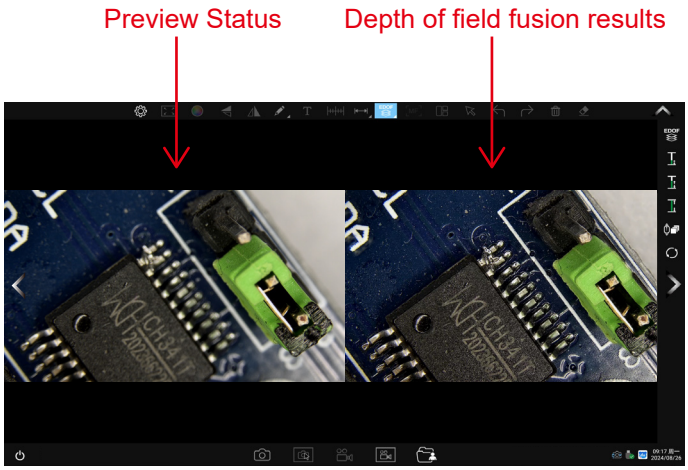
Supports the installation of third-party office software, which can directly generate reports containing pictures and measurement results.



Depth of field fusion

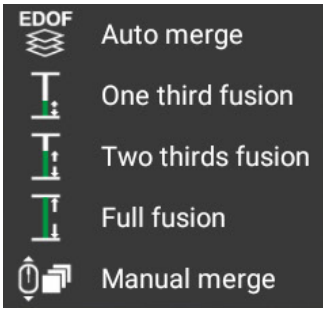
Our innovative camera leverages unique optoelectronic mechanisms and advanced image algorithms to efficiently capture images at various focal planes. This technology enables the timely synthesis of images with optimal focus, ensuring clarity and precision in every shot.

- Suitable for almost all types of microscopes on the market.
- Depth of field range, with a specific microscope, the depth of field fusion can reach max 64mm (object height).
- Fast fusion speeds and precise thresholds greatly enhance the user experience.
- During the depth fusion scanning process, the motor operates quietly and without any vibrations. The durability of the optoelectronic mechanism exceeds 3 million cycles, with each complete scan counting as one cycle.



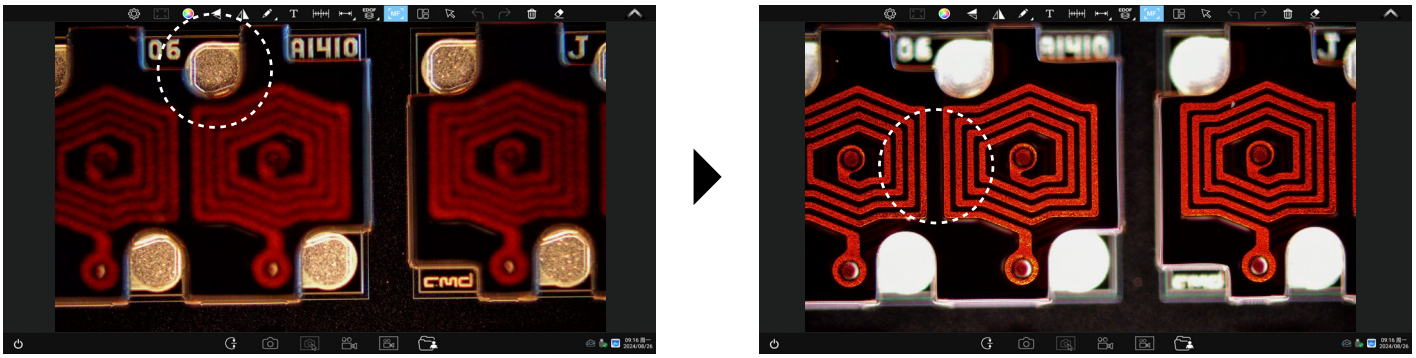
Depth of field fusion travelling can be selected from auto- fusion, 1/3 travelling fusion, 2/3 travelling fusion, full fusion and manual fusion.

- Auto-fusion is the camera automatically scans, determines the highest and lowest points on the object side, and fuses every clear point of the fallout.
- 1/3 travelling fusion is a forced scan fusion of one third of the camera's physical maximum scan stroke.
- 2/3 traveling fusion is a forced scanning fusion of two thirds of the camera's physical maximum scanning stroke.
- Full fusion is a forced scanning fusion for the physical maximum scanning stroke of the camera.
- Manual fusion is a scanning fusion of the region of interest by controlling the scanning stroke with the mouse wheel.



Manual focus

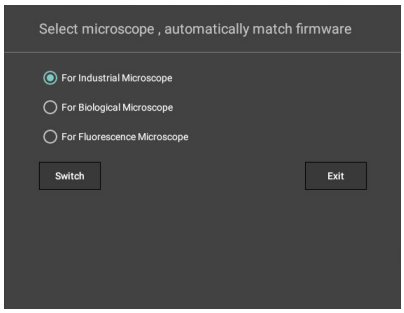
Manually roll the mouse wheel and click on the area you want to observe to focus on it.



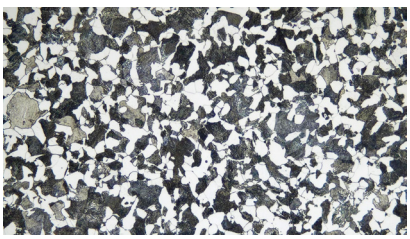
Dedicated image mode

Depending on the application of the microscope, the corresponding exclusive image mode can reproduce the image effect more accurately:

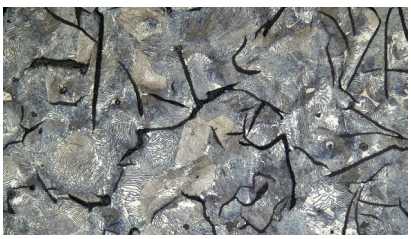
1. Biological microscope
2. Industrial microscope
3. Fluorescence microscope



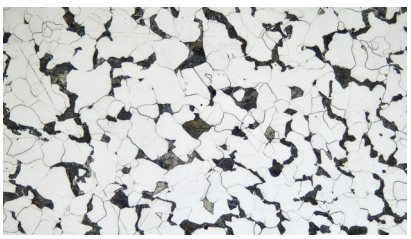
Industrial microscope



Carbon Steel (objective: 50X)



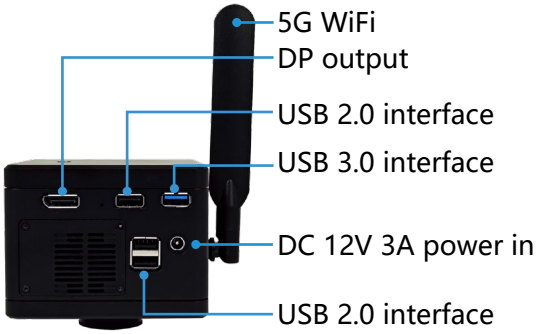
Grey Cast iron (objective: 50X)

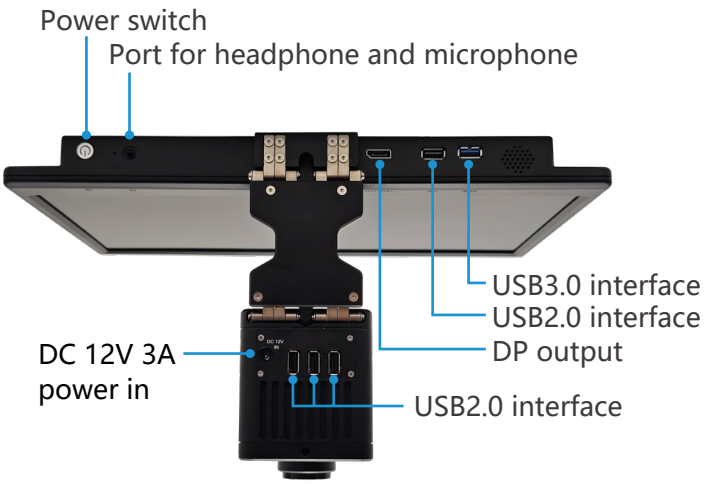


Hypo eutectoid steel (objective: 50X)

Multiple image output modes

Option C: DP, WiFi, WiFi+DP output;
Option D: local on-screen display, DP, WiFi, WiFi+DP output.





5G WiFi output

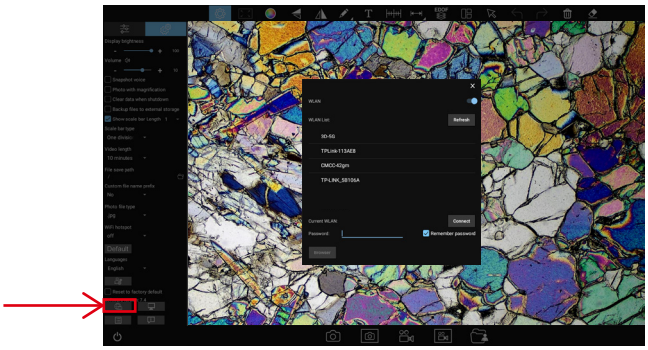
Compatible with various devices and operating systems, including Windows, iOS, and Android. Mobile devices can access the system by scanning a QR code. connects to PC via WiFi.

DP output

With DP output for display on monitors,Tvs and projectors.

Connecting to the Internet

The camera supports wireless Internet connection (only supports 5G WiFi router signal), by entering the password of any 5G WiFi network , you can directly open the browser to access the Internet.
This will allow you to take advantage of online features and functionalities directly from your camera.



Specifications

15.6'' high color gamut display

Number of pixels	1920(horizontal) x 1080 (vertical)
Pixels arrangement	RGB vertical stripe
Colour gamut	100% （sRGB）
Display number of colors	16.7M(8Bit)
Surface treatment	Anti-glare
Surface hardness	3H
Viewing angel range	170 horizontal, 170 vertical
Contrast	800
Brightness	500cd/㎡ (average of 5 points)

	Option C		Option D	
Applicable microscopes models	DM750M,DM750P	Ivestas 3,M125C	DM750M,DM750P	Ivestas 3,M125C
Models	TE2000		JX200	
C-mount category	CJ-C-08		DJ-C-08	
With 0.43X tube lens category	CJ-L-08	CJ-IA3-08	DJ-L-08	DJ-IA3-08
Physical resolution	8.3MP			
Image sensor	SONY IMX678 CMOS			
Sensor size	1/1.8''			
Pixel size	2μm×2μm			
A/D convertsion bit depth	12bit			
Exposure time	10us~10s			
Exposure mode	Rolling shutter			
ISO sensitivity	Equivalent to 100-12800			
Spectral response	400-650nm			
Exposure capability	Real-time automatic and manual adjustment			
White balance	Real-time automatic and manual RB adjustment			
Power supply	DC 12V 3A			
Video recordings	3840×2160@30fps 1920×1080@30fps			
HDMI output	3840×2160@30fps 1920×1080@30fps			
USB output	3840×2160@30fps 1920×1080@30fps			
Network output	3840×2160@30fps 1920×1080@30fps			
Software and App	Windows Software: KoPa Capture Pro, OSD: KoPa View, APP: KoPa WiFi Lab			

Accessories

DP cable
(option C）

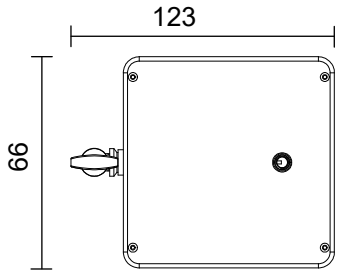
Power adapter and power cord
(Optional Chinese, American, European, Australian, Korean, British standard etc.)

USB mouse and keyboard

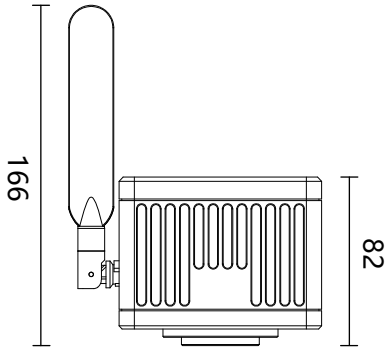
Dimensions(Unit:mm)

Option C

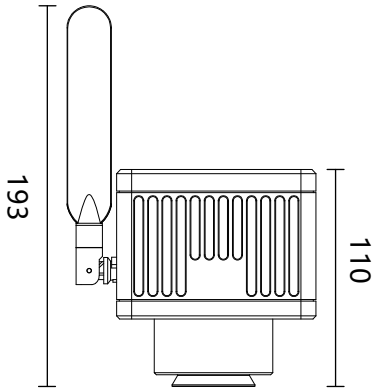
Net weight ≈1.3kg



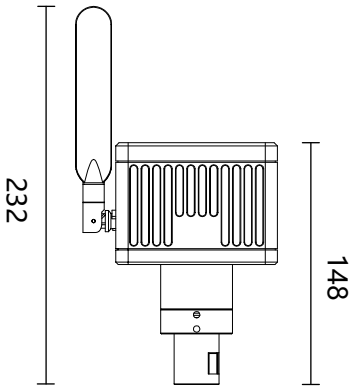
Camera with C-mount



Camera with 0.43X tube lens



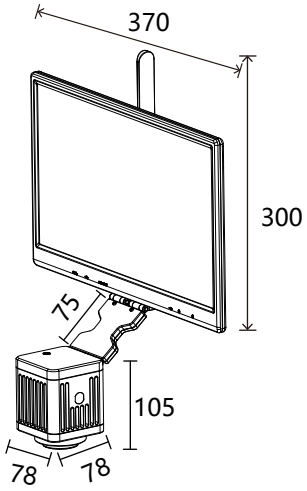
Camera with 0.43X tube lens



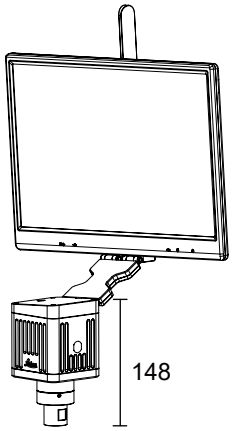
Option D

Net weight ≈2kg

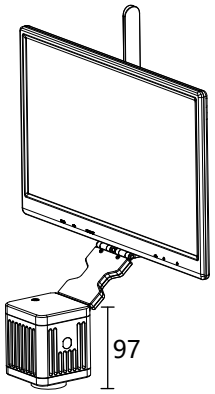
Camera with 0.43X tube lens



Camera with 0.43X tube lens

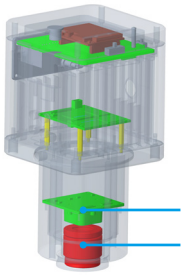


Camera with C-mount

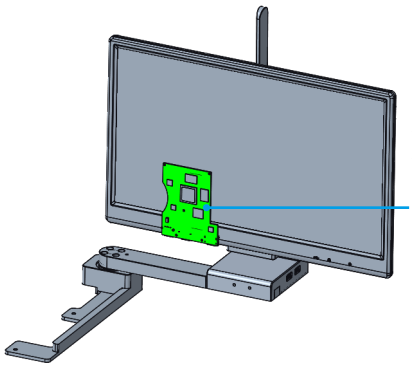


Solution①Smart Display Camera

Features & Benefits



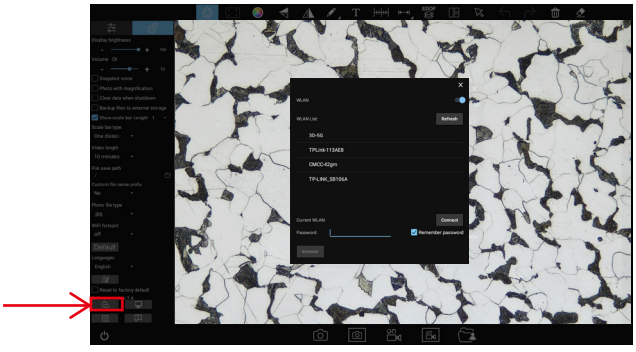
- Includes a high-power 0.43X tube lens for a wide field of view.



- Built-in Operating System Android processor RK3399, office suit(Word,Excel, Powerpoint) are preinstalled, no need computer.
- Integrated with 15.6" high-definition ISP display.
- Comes with an imaging app that displays live images upon startup.
- 32GB built-in eMMC with support for external U-disk storage for pictures and videos.
- USB interface allows for easy connection of keyboards and mouse.

Connecting to the Internet

The camera supports wireless Internet connection (only supports 5G WiFi router signal), by entering the password of any 5G WiFi network , you can directly open the browser to access the Internet. This will allow you to take advantage of online features and functionalities directly from your camera.



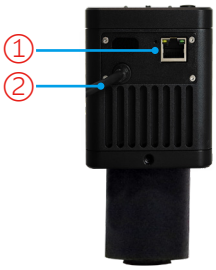
5G WiFi and DP are simultaneous outputs

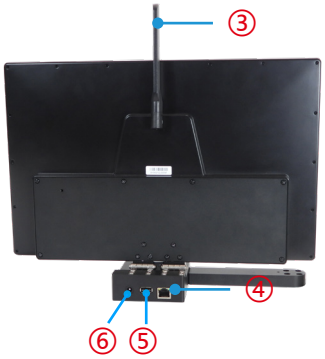
5G WiFi output

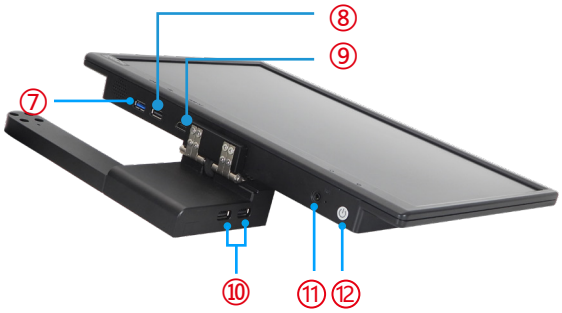
Compatible with various devices and operating systems, including Windows, iOS, and Android. Mobile devices can access the system by scanning a QR code. connects to PC via WiFi.

DP output

With DP output for display on monitors,Tvs and projectors.







①	Network output interface	Connected to the screen via a network cable, the image is captured via software
②	USB Power Input	Powering the camera by connecting to the USB port
③	5G WiFi antenna	5G WiFi signal transmission to connect the camera to capture images or control the camera
④	Network output interface	Connected to the screen via a network cable, the image is captured via software
⑤	USB 2.0 interface	Can power the camera (output voltage 5V, maximum output current 2A)
⑥	Power Input	DC 12V 3A
⑦	USB 3.0 interface	Can be connected to a mouse, keyboard, USB flash drive (for copying videos and images)
⑧	USB 2.0 interface	
⑨	DP output interface	Through the DP cable, connect with the display device and transmit

⑩	USB 2.0 interface	Can be connected to a mouse, keyboard, USB flash drive (for copying videos and images)
⑪	Headphone and microphone ports	Connect with headset cable for audio output
⑫	Power switch	Switch on/off

Specifications

15.6'' high color gamut display

Number of pixels	1920(horizontal) x 1080 (vertical)
Pixels arrangement	RGB vertical stripe
Colour gamut	100% （sRGB)
Display number of colors	16.7M(8Bit)
Surface treatment	Anti-glare
Surface hardness	3H
Viewing angel range	170 horizontal, 170 vertical
Contrast	800
Brightness	500cd/㎡ (average of 5 points)

Name	Smart Display Camera
Models	YY48
Category	SD-iLM-08
Physical resolution	8.3MP
Image sensor	SONY IMX678 CMOS
Exposure mode	Rolling Shutter
Maximum resolution	3840×2160 (8,294,400Pixels)
ISO sensitivity	Equivalent to 100-12800
Sensor size	1/1.8''
Pixel size	2μm×2μm
Spectral response	400-650nm
Exposure capability	Real-time auto and manual adjustment
Exposure time	10μs-10s
White balance	Real-time auto and manual RB adjustment
Preview resolution	3840×2160@30fps
Power supply	DC 12V 3A
Wireless protocol	5G WiFi IEEE802.11ac
A/D convertsion bit depth	12bit
Tube lens	0.43X
Software and App	Windows Software:KoPa Capture Pro,Embedded software:KoPa WiFi Lab AO, App:KoPa WiFi Lab

Accessories

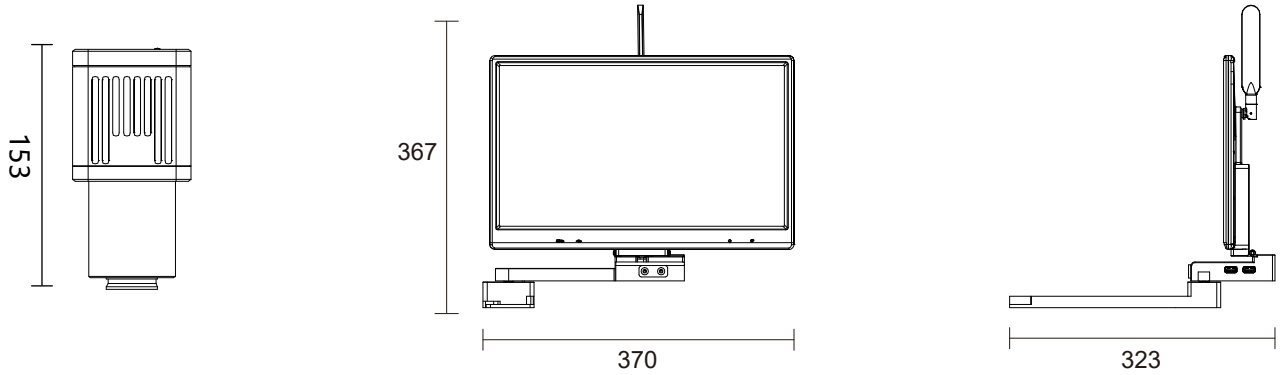
Power adapter and power cord
(Optional Chinese, American, European, Australian, Korean, British standard etc.)

USB mouse and keyboard

Gigabit Ethernet cable

Dimensions(Unit:mm)

Net weight ≈2.6kg



Embedded Beam Splitter

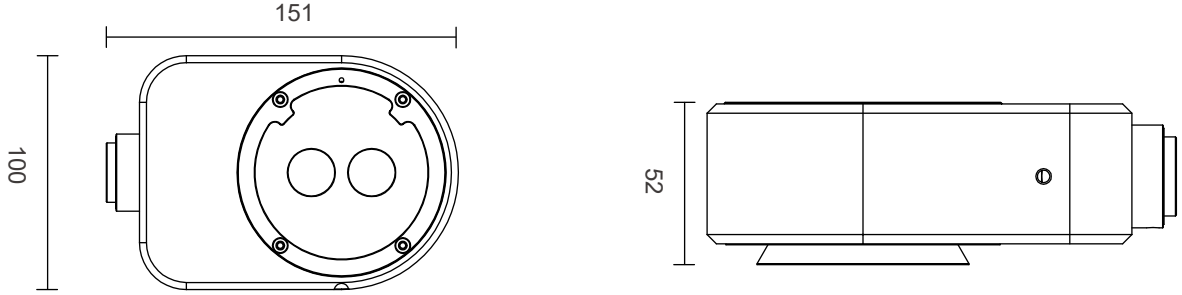
Features

- Features a 50:50 light-splitting design that preserves the original optical system.
- Professional NPBS beam splitter prism to ensure true color reproduction.
- Includes a high-power 0.43X tube lens for a wide field of view.

Model

Applicable to	Leica
Model	PA043LT

Dimensions(Unit:mm)



Certifications

1. Comply with FCC certification of The US Federal Communication Commission.
2. Comply with European (standard) safety CE certification.
3. Comply with the MIC certification issued by the Ministry of Internal Affairs and Communications of Japan (Electric Wave Method and Electro-Optical Communication Business Law).
4. Comply with JATE certification of Japanese telecommunications law directive.
5. Comply with the “Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment” (RoHS) Directives in accordance with EU legislation.

Evaluation object	Certification	Certificate File Name & Report	Certificate number & corresponding report number
WF01A(5G WiFi 11ac)module Certification	US FCC Report	SZEM180100024801-5G wifi RPT-WF01A FCC Report	SZEM180100024801
		SZEM180100024802-RT-WF01A FCC Report	SZEM180100024802
		Appendix A-Photographs of EUT Constructional Details for SZEM1801000248CR-FCC	SZEM1801000248CR
	US FCC ID Certification	2AFO3WF01A_NII-WF01A FCC ID	2AFO3WF01A
	EU CE report	SZEM180100024901 EN301489 RPT-WF01A CE Report	SZEM180100024901
		SZEM180100024902 WIFI5G RPT-WF01A CE Report	SZEM180100024902
	Japanese MIC Certification	CSRT180084-WF01A Japanese MIC Certification	CSRT180084
	Japanese JATE Certification	CSTT180018-WF01A Japanese JATE Certification	CSTT180018

Patented

Patent category	Patent name	Patent number
Design patent	Electronic eyepiece	ZL 2015 3 0193227.8
	Wireless electronic eyepiece	ZL 2015 3 0193223.X
	Electronic eyepiece with spectroscopic system	ZL 2019 3 0331144.9
	Microscope (with splitting prism camera)	ZL 2019 3 0717439.X
	Microscope with camera	ZL 2019 3 0717442.1
Utility model patents	WiFi microscope eyepiece	ZL 2015 2 0296469.4
	Electronic eyepiece	ZL 2015 2 0426409.X
	Wireless electronic eyepiece	ZL 2015 2 0426313.3
	Microscope with displayer	ZL 2019 2 0928962.1
	Electronic eyepiece with splitting prism system	ZL 2019 2 1022863.3

Software copyright

Category	Name of software	Platform	License number
Computer software copyright registration certificate	KoPa Capture Pro	Windows	2021SR1287730
	KoPa WiFi Lab AO	Android	2021SR1304520
	KoPa WiFi Lab	Android	2019SR0117768
		iOS	2019SR0028558
	KoPa View	Linux	2024SR1617066

KoPa® GuangZhou Ostec Electronic Technology Co.,Limited
Manufacturer: No.8 West Lane, Jiangcheng Road, Bangjiang East Village,Dalong street, Panyu District, Guangzhou, China.

High-Tech Enterprise certificate number：GR202344009665

ISO9001 Verification No:00223Q26818R3S

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