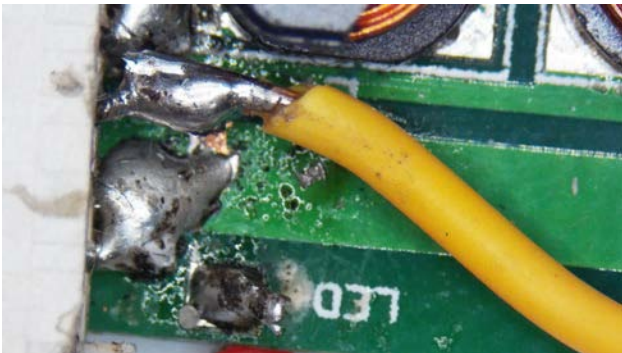**LANE** OPTICAL TECHNOLOGIES

A complete solution to continuous zoom microscope for observation

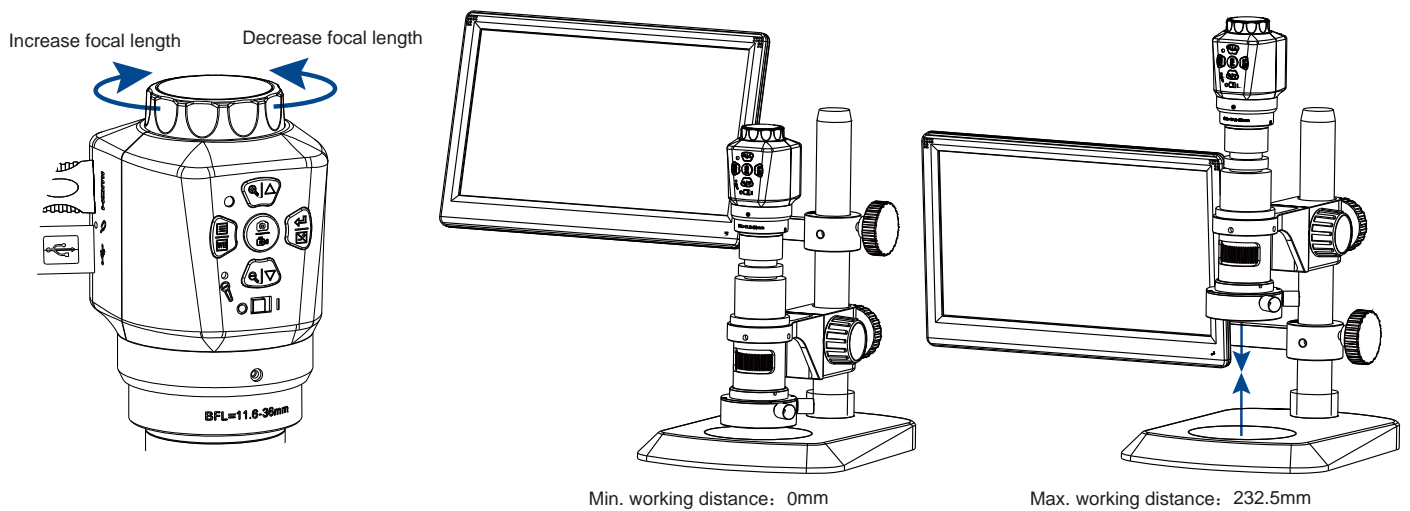| Long working distance：0mm~232.5mm Ultra wide field of view：31.6mm×17.7mm | 3.5 MP HD Camera 1080i 60 FPS preview 720P HD record | High definition optical lens The lifetime of the zoom is over 20,000 times | 9.5X-120X overall magnifications | Equipped with 12.5"HD 1080P monitor | Unique diffuse light & external coaxial light. |

Highlights

HD52-H combined the traditional optical and electronic video technology, completely solves the disadvantages of the traditional microscope, which is easy to cause human fatigue when observed for a long time. HD52-H integrates magnification imaging, monitor and LED lightings into one. It is designed for fast and efficient observation of details.

It has unique manual focus knob on top of camera helps you to p roduct the sharpest image within the working distance (0mm~232.5mm) when the observation object size changed from sm all to large. Avoid tedious adjustment work and directly change the working distance through eye-height adjustment ring and expand the original magnification ratio of the microscope.

Increase focal length   Decrease focal length

BFL=11.6-36mm

Min. working distance：0mm   Max. working distance：232.5mm

With a factory integrated 3.5MP 1080i 60pfs digital camera and HD lens.

- Manu/AWB button
- Power indicator
- Zoom in/Up
- Mode/Confirm/AE
- Snapshot/Record button
- Zoom out/Down
- Power on/off
- Microphone

BFL=11.6-36mm

- HDMI image output interface
- Reset
- Power

0.4X

0.7X~5X

HD52-H is equipped with the External coaxial light, which can uni formly illuminate the surface of the plane and the shiny surface, and enhance the features of marking, recessing or embossing.It can highlight the uneven surface of the object, overcome the interference caused by the reflection of the surface, and improve the microscope reproducibility, more details shown.

- Reduce glare under diffuse light.

- More conducive to the observation of the smooth surface, the highly reflec-tive surface and the hard-to-reach area under external coaxial light.

- The two ring lights are independently controlled, and the br ightness can be freely combined and adjusted according to the actual observation situation.

- It is powered by the monitor safe and reliable, and reduces the floor line, save space of working table.

15 coaxial light beads

27 diffuse light beads

External coaxial light knob
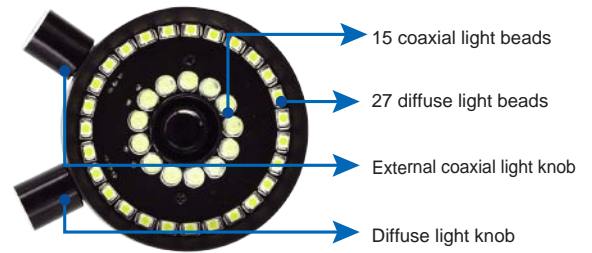
Diffuse light knob

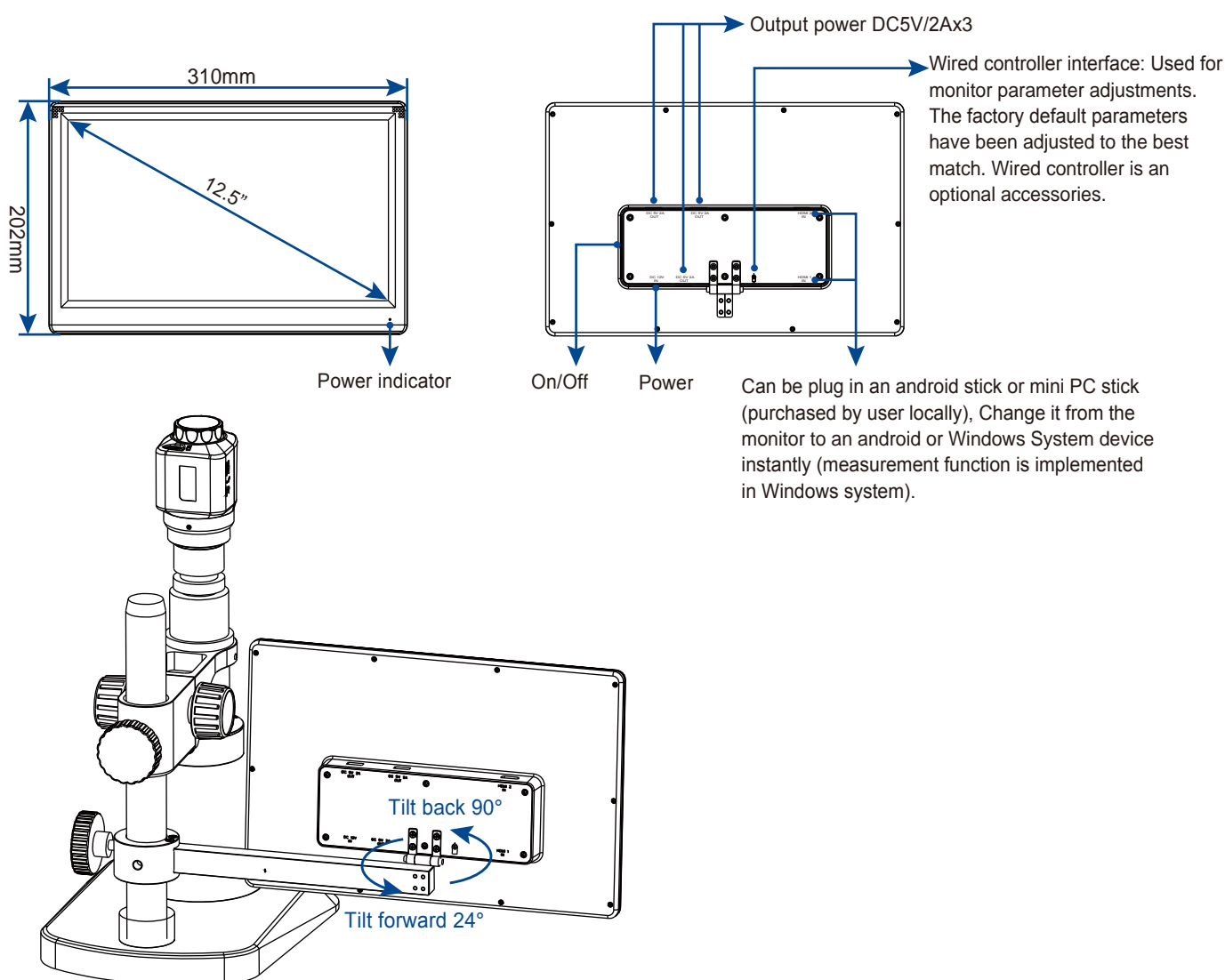|	With diffuse light	With external coaxial light & diffuse light
PCB		More details shown
Surface of glasses		Clearer surface scars
Surface of metal		Stronger sense of 3D

Easy to realize continuous zoom to overall magnification of 9.5X~120X (based on 12.5" monitor).
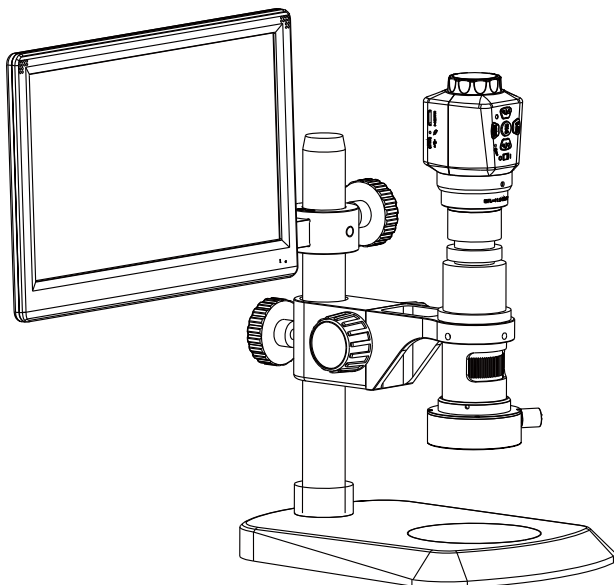
Working distance	When in 0.7X 0mm~232.5mm adjustable
	When in 1X 6mm~144.5 mm adjustable
	When in 2X 61mm~101.5mm adjustable
	When in 3X 77.5mm~95.5mm adjustable
	When in 4X 83.5mm~93.5mm adjustable
	When in 5X 85.5mm~91.5mm adjustable
Depth of field	When in 0.7X 2mm~9.5mm
	When in 1X 2mm~3.3mm
	When in 2X 0.7mm~1mm
	When in 3X 0.46mm
	When in 4X 0.39mm
	When in 5X 0.32mm
Observation range , adjustable (L x D)	31.6mm x 17.7mm~2.3mm x 1.3mm
Overall magnification (based on 12.5" monitor)	When in 0.7X 8.8X~35.8X
	When in 1X 17.3X~31.6X
	When in 2X 41.8X~45.4X
	When in 3X 62.7X~68.7X
	When in 4X 85.4X~94.3X
	When in 5X 106.3X~119.4X

Integrated solution - one device can achieve multiple functions of low magnification tasks; Equipped with all-in-one 12.5''
monitor, when needed, operator can fine-tune screen angle to look up (max 90°) or look down (max 24 °)

Output power DC5V/2Ax3

Wired controller interface: Used for
monitor parameter adjustments.
The factory default parameters
have been adjusted to the best
match. Wired controller is an
optional accessories.

310mm

12.5"

202mm

Power indicator

On/Off   Power

Can be plug in an android stick or mini PC stick
(purchased by user locally), Change it from the
monitor to an android or Windows System device
instantly (measurement function is implemented
in Windows system).

Tilt back 90°

Tilt forward 24°

Simple, easy-to-use image and video capture software is include d as standard to allow you to use it instantly.

- Camera buttons can optimize camera settings, including white balance, exposure,
  sharpness, contrast, freeze, crosshairs, and more.

- The software menu supports 9 languages: English, Chinese (Simplified/Traditional),
  Japanese, Russian, French, German, Italian, and Spanish.

- The captured image supports JPG format.

- Recorded video supports MOV format, perfect for training.

- Equipped with TF card slot, support up to 64G TF card for im age and video saving
  (self-provided TF card).

TF card slot

1920×1080

83466
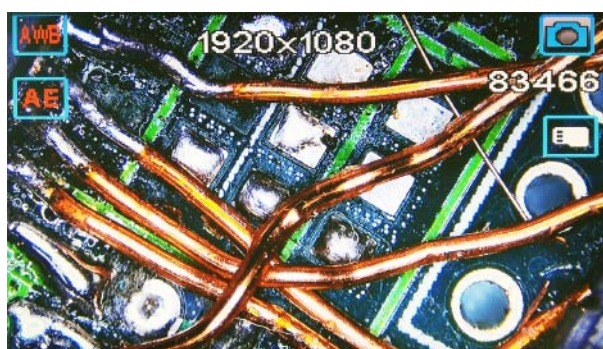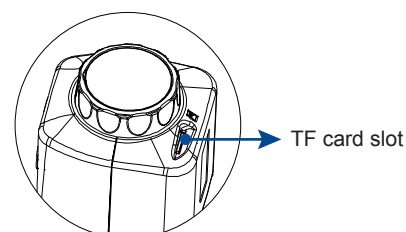
■ Rich Functions

Expousre		HDR	HDR	Key tone		Freeze	
AWB	White balance		Sharpness		Auto turn off		Reticle
	Resolution		Snapshot mode	AB	Languages		Formatting
	Continuous Capture Modes		Color	Hz	Light source frequency		Default
	Image quality		Instant preview		Image rotation	VER	Version

Specifications

HD52-H Camera specifications

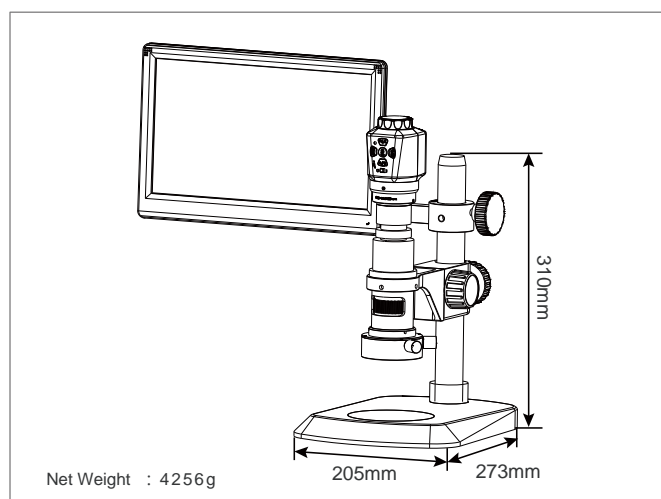|	
Image Sensor	Aptina AR0330 CMOS Sensor
Expose mode	Rolling shutter
Maximum Resolution	2304 x 1536 (3,538,944 pixels)
Sensor Optical Format	1/3'' (5.07mm(H) x 3.38mm(V), Diagonal 6.09mm)
Pixel Size	2.2μm x 2.2μm
Dynamic Range	69.5dB
SNR (Signal Noise Ratio)	39dB
Spectral Characteristics	380~650nm
Exposure Capability	Real-time auto, Single auto, Manual adjustment
White Balance	Real-time auto, Single auto, Manual adjust R G B seperately
Display (preview) resolution	HDMI:1920X1080i60，1920X1080P30,1280x720P60, 640x480P60(Auto fit by the monitor)
Record format	Snapshot Picture Format：JPG Resolution: HDMI: 2304 x 1536,2304 x 1296,1920x1080,1280x720,800x480 Record Video Format：MOV Resolution: HDMI：1280x720@30FPS, 800x480@30FPS
Record Route	HDMI：TF card(Maximum support 64G)
Power supply	Power adapter: Input:AC100~240V/50~60Hz;Output:DC12V/5A/60W
	Monitor：USB-A-Output:DC5V/2A×3

HD52-H Lens specifications

Optical Magnification	0.7X~5X		
Optical Resolution	When in 0.7X 16.78um	When in 3X	6.10um
	When in 1X 11.18um	When in 4X	4.79um
	When in 2X 8.39um	When in 5X	4.79um

Monitor parameters

Size	12.5"
Type	a-Si TFT-LCD/IPS
Resolution	1920x1080
Color display	16.7M
Brightness	300 Nit
Contrast	800:1
Visible angle	170° horizontal & vertical

Dimensions

310mm
205mm 273mm

Net Weight : 4256g

Packing list

Inspection video microscope · Monitor · Monitor bracket · HDMI cable · Screwdriver · Assembly instruction · AC adapter · USB cable · Reset pin · CD · Wired Controller (optional)
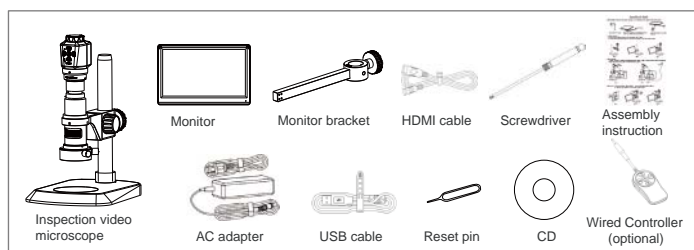
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