



# TrueChrome Metrics

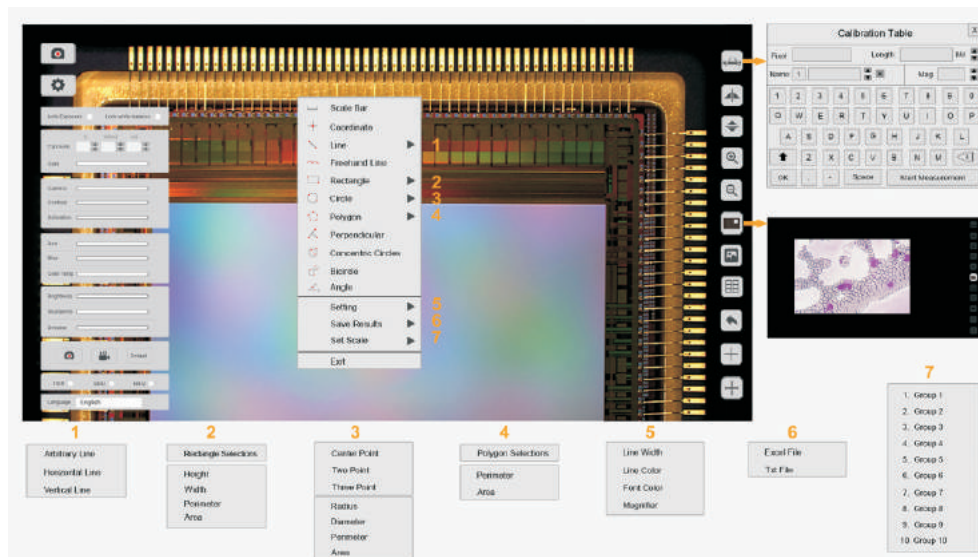
Color HDMI Metrology Camera



# Integrated Digital Image Measurement System

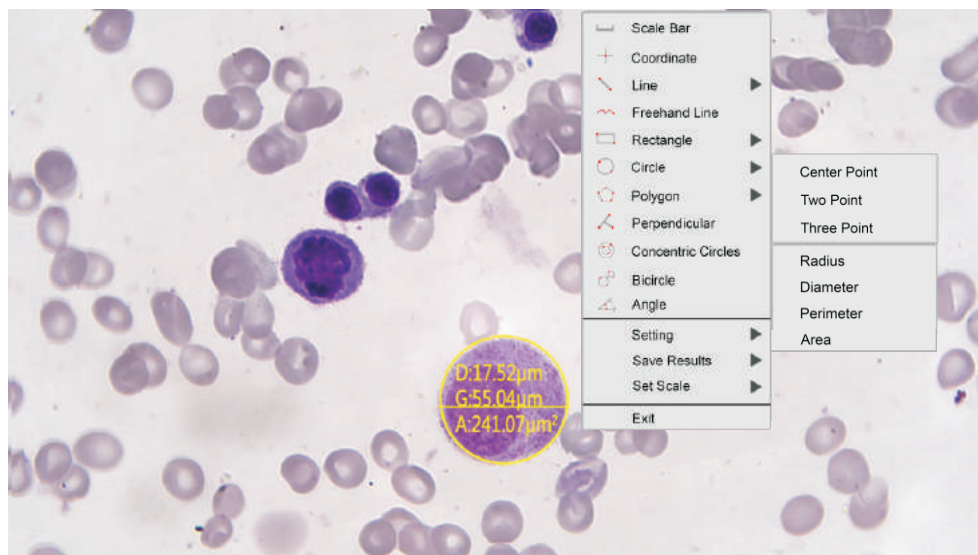
## Multiform Measurement Tools

TrueChrome Metrics provides extremely powerful measurement functionality including: freehand lines, rectangles, polygons, circles, bicircles, angles, point-line distance and much more. In addition to the ability to measure point-line distance, angles, the length of curves and lines, the camera can measure the perimeter & area of enclosed features such as: rectangles, polygons, and circles. The unique calibration and magnification functions coupled with the ability to export the results to Excel or text files, make the measurements more convenient and simple.



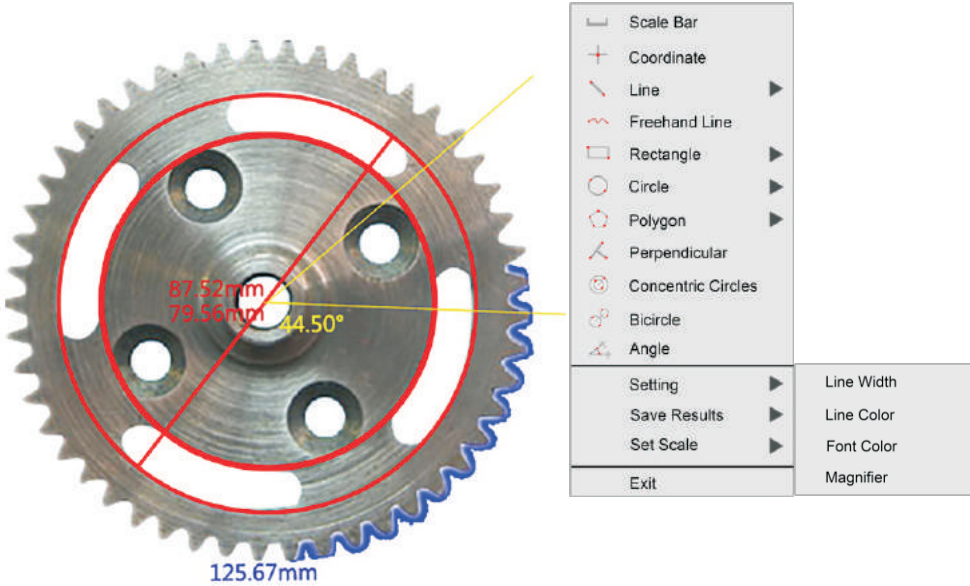
## Micron Level Measurement Accuracy

The TrueChrome Metrics is capable of delivering measurements with a resolution of 10 nanometers which provides an incredible metrology capability in the most demanding situations.



# Measurement for Various Applications

In addition  $\mu\text{m}$ , TrueChrome Metrics also provides calibrations in mm and cm, which will meet various measurement requirements in different applications. And these results provide objective and reliable data to support quantitative analysis.



# Convenient Measurement Data Management

Two measurement results exporting modes (Excel and text) make the measurement data management more convenient.

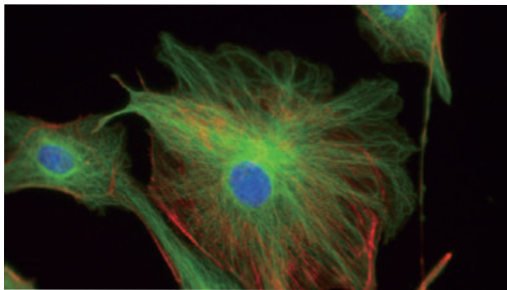
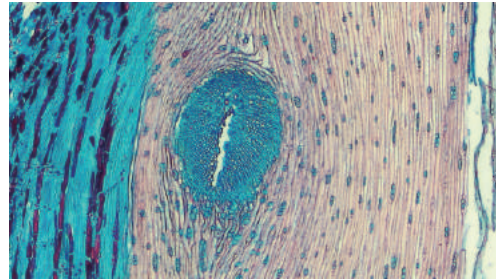


# The continuation of the TrueChrome IIS heritage

---

## 30fps High Speed Live Image

With 30fps data transfer at an uncompressed resolution of 1920X1080, TrueChrome Metrics sets a precedent. It is one of the fastest USB2.0 camera in the world.

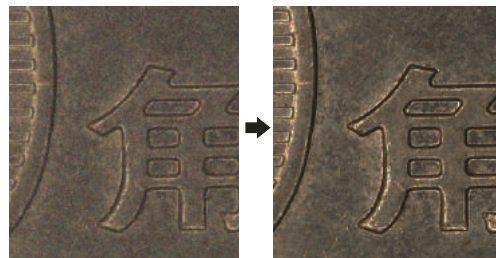


## Excellent Capability for Fluorescence


Taking advantage of the ultra high signal to noise ratio sensor, TrueChrome Metrics provides for up to 10 seconds exposure time and gets finest detailed images, even for low light fluorescence.

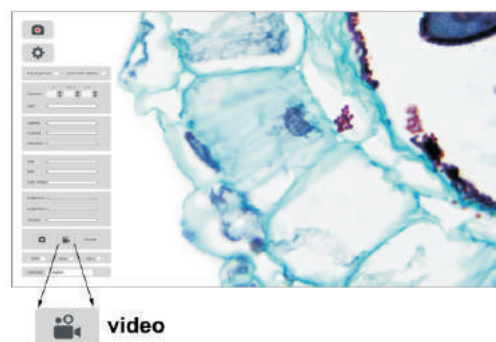
## 3D Noise Reduction

Longer exposure times increase the image noise. But the integrated 3D noise reduction function keeps the TrueChrome Metrics image always clean and sharp.



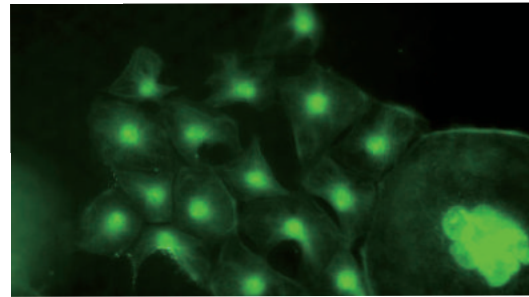
## 1080P Video Recording

Just click on  to start recording 1080P videos at 30fps. The recorded video files will be saved to the high speed SD card. It is also possible to play back the videos from the SD card directly.



## Superb Smart Camera

TrueChrome Metrics automatically analyzes the acquired images, optimizes the white balance, exposure time and saturation to present perfect images. Whatever, for bright field or dark field applications, ideal images can be captured, barely needing any parameter adjustments.

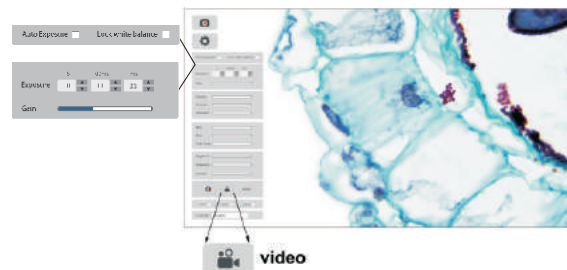


## Built-in Mouse Control Camera

The significant innovation of TrueChrome is making the software implant inside the camera. The user can control the camera only by a mouse directly.

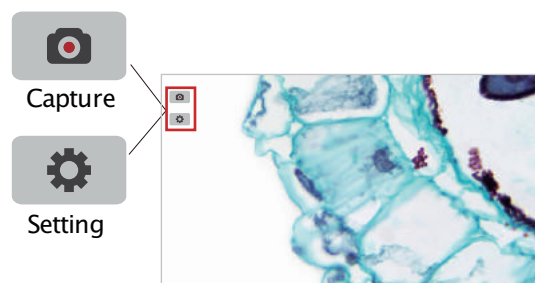
## Exposure Setting

Based on the auto exposure, the first time, HDMI camera equip the complete exposure and gain settings. It allows to set exposure time from 1ms to up to 10 seconds. 20 scales available for gain adjustment. Compared with 1st generation True-Chrome only auto exposure available, convenience is significantly improved and moreover, the sensitivity is 300 times higher.



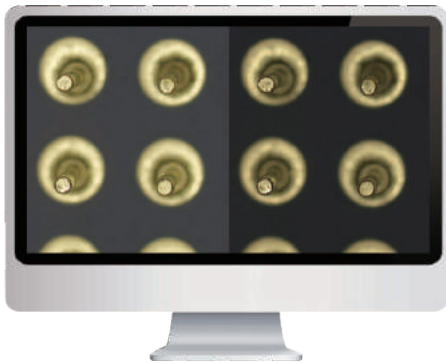
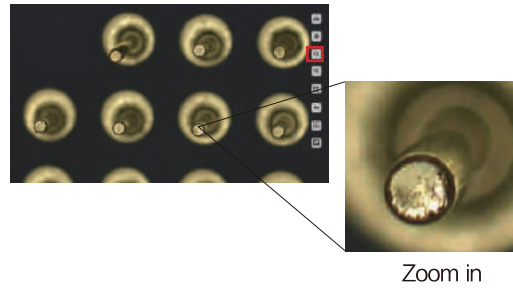
## Simple Operations

The TrueChrome Metrics embedded user interface is so simple that not even one mouse click is required to bring up the two simple menus. There are only two icons on the TrueChrome Metrics splash, one for capture, the for settings.



## Get more Details with ROI Magnification Function

With 30fps data transfer at an uncompressed resolution of 1920X1080, TrueChrome Metrics sets a precedent. It is one of the fastest USB2.0 camera in the world.



## Image Comparison Function

The image comparison function is available in the setting menu. You can choose one image, even move the image position or select the ROI area to compare with the live images.

## Browse Captured Images

All the captured images are saved in the SD card. The users can browse all the images in the SD card, zoom in images or delete unnecessary images. You also can review and play back the video files in the SD card directly.




## Future

The design orientation of TrueChrome Metrics implanted software is to bring the user-friendly and easy to use functions. If you have any good suggestions, please let us know. The online upgrade functions is available for TrueChrome Metrics. Let us creat better Cloud software together.



# PC software :



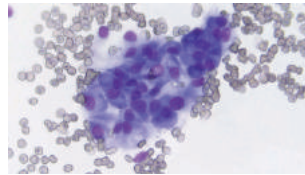
## Tcapture

- Multi camera control
- Unique low light setting
- Image and Video acquisition
- Flexible file management
- Image processing and measurement

Want to have a software with more powerful functions? Connect the TrueChrome Metrics to the PC via USB2.0 port, you can have a USB driver free camera immediately. Meanwhile you can still have the camera work at 30fps with resolution 1080P. The application software Tcapture which integrate the remarkable functions like live and still image measurement, focus stacking and image stitching etc can fully control TrueChrome Metrics. We keep a copy of Tcapture in the SD card come with the TrueChrome Metrics. You also can visit our website ([www.tucsen.com](http://www.tucsen.com)) to get the software download for free.

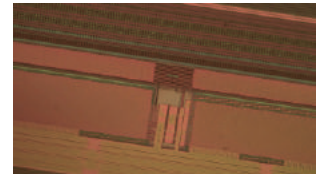
## Sample >> Applications

### Pathological analysis



Pathological analysis requires the image color fidelity should be 100% accurate. Especially for the digital imaging, it has great claims for the purple blue color rendition. With perfect performance for purple blue colors, TrueChrome Metrics ensures precise and accurate pathological images.

### Material qualification



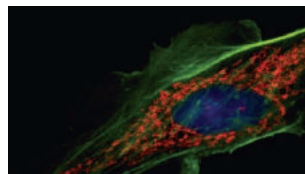
Industry applications highly require excellent clear and sharp images without any delay. Up to 60fps high definition live preview from TrueChrome Metrics allows you to comfortably and efficiently do the quality inspection.

### Teaching



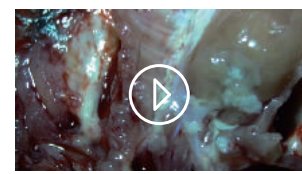
In teaching presentations, the lecturer uses a computer to set up a specimen and projects the specimen images to a big screen for student to watch. TrueChrome Metrics allows a dual live video stream to a PC and any imaging device with HDMI interface.

### Fluorescence imaging



When come to low light applications, it crucial to have high sensitivity cameras. Up to 10 seconds exposure capability means TrueChrome Metrics 300 times more sensitive than the other HDMI cameras in the market.

### Medical anatomy recording



Need to record the microsurgery procedures clearly and fluently? TrueChrome Metrics's high definition high speed recording capability offers superb documentation at 1080P 30fps.

# Copyright >>

Tucsen is an authorized Adopter of the international organization HDMI associate. We are the legal supplier of HDMI scientific cameras which represents the best stability and compatibility of Tucsen HDMI scientific cameras.



## Technical Specifications:

Imaging Sensor			
Type	Sony CMOS sensor	Active Pixels	2 MP
Size	1/2.9 inch	Pixel Size	2.9μm x 2.9μm
Model	IMX291	Color/Monochrome	Color
Image Resolution			
Dynamic Resolution	1920x1080	Static resolution	3264x1836
Image Processing			
Image Processor	Built-in image processor	Color Temperature	1800K-10000k
Scan Mode	Progressive	Noise Reduction	Real-Time 3D denoise
Parameter Settings	Gain, Gamma, Saturation, Contrast	White Balance	Auto/Manual
Image Measurement			
Function	Real-time dynamic calibration and measurement	Applications	lines, rectangle, polygon, circle, bicircle, angle and point-line distance ect.
Image Acquisition			
Capture	SD card(16G)	Video recording	1080p 30fps
Sensitivity	1300mV	Shutter Type	Electronic Shutter
Exposure Control			
Exposure mode	Auto/Manual	Exposure time	1ms-10s
Preview			
Frame rate	30fps, 2MP	Data Transfer 1	USB2.0
		Data Transfer 2	HDMI
Software/ Compatible System			
Built-in Software	Cloud 1.0 Ver	Compatible System	Window XP and above
Windows Software	TCapture		
Interface			
Optical Interface	Standard C-Mount	Data In terface 1	USB2.0
		Data Interface 2	HDMI
Operating Environment			
Storage Temperature	-20-70°C	Operating Temperature	0-60°C
		Operating Humidity	10%-85%

## Packing List

- TrueChrome Metrics camera
- HDMI cable
- USB cable
- 12V power adaptor
- SD card
- Mouse
- TCapture software
- Packing box



Tucsen Photonics Co., Ltd.

Address: 6F NO.1 building Caimao Zone, 756# Qi'an Road, Gaishan Town, Cangshan Area, Fuzhou, Fujian, P. R. CHINA  
Tel: + 86-591-88194580

Website: [www.tucsen.com](http://www.tucsen.com)

Email: [support@tucsen.com](mailto:support@tucsen.com)

quality authentication: ISO9001 CE RoHS