

# Profile



OPLENIC is a professional manufacturer in optics parts and video system in China. We cooperated with many famous universities in electronic and optical field. Also, OPLENIC are highly experienced in sale optronic equipments. These products are exported to America, European, Japan, East South Asia and so on.

Our products are introduced on the website as well as the catalogues. New products will be broadcasted once ready. If you have any requirements for our products or technology, please feel free to [contact us](#)

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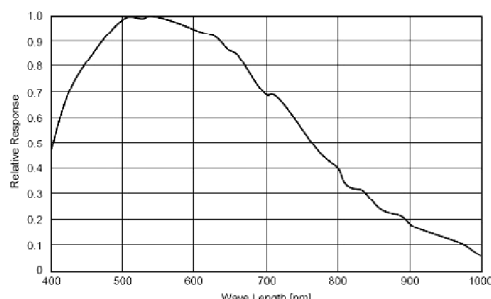
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# Digital Camera for Microscope

## Mono CCD series



This high performance digital Mono CCD image system comprises advanced CCD and electronics technology. The system features extremely low noise (down to 4e-rms) and an outstanding quantum efficiency, which achieves a high spectral sensitivity in general and especially in the NIR. Exposure time modes (software selectable) range from 0.06ms - 60ms (fast shutter) to 0.426s - 582s (long exposure). A high speed transfer of the data to the PC through USB2.0.

### Key Features:

- Super quantum efficiency up to 65%
- Extremely low noise, down to 4e-rms
- 12bit dynamic range at the hardware level and 8 bit to the PC
- High resolution (1376 x 1024 pixels)
- Shutter / exposure times from 0.06ms-582s
- Binning (horizontal & vertical, 1X1, 2X2, 4X4)
- Region of interest (ROI)
- 10 frames per second at full CCD resolution
- Direct Show and Twain drivers, free software included.

### Areas of Application:

- Laser induced fluorescence
- Fluorescence microscopy
- Electron microscopy
- Red and NIR fluorescence applications
- Bioluminescence / chemo luminescence
- Spectroscopy
- Gel imaging ,Ion imaging
- Low light level imaging
- Semiconductor quality control
- Imaging of bio markers (e.g. Green fluorescent protein, GFP)

|                         |  |
|-------------------------|--|
| Sensor Format           | 2/3"ICX285AL SONY CCD 1.4M hardware pixels   |
| Pixel Size              | 6.45μm x 6.45μm                              |
| CCD Array               | 1376 x 1024                                  |
| Binning                 | 2X2 , 4X4                                    |
| Peak Quantum Efficiency | 62%  |
| Dynamic Range           | 70.1dB                                       |
| A/D                     | 12 bit                                       |
| Readout Noise           | 4.5 e-rms @ gain high /5.6 e-rms @ gain low  |
| Pixel Scan Rate         | 16MHz  |
| Spectral Range          | 350-1000(w/o IR cut) , 350-780 (with IR cut) |
| Exposure Time           | 133ns-582s                                   |
| Smear                   | < 0.002%                                     |
| Region of Interest      | down to 32 x 32pixels                        |
| Power Supply            | USB port                                     |
| Operating Temperature   | -20 °C ~ +40 °C                              |
| Operating Humidity      | 10%~90%                                      |
| Optical Input Window    | fused silica                                 |
| Data Interface          | USB2.0                                       |
| Data transfer           | Direct show and Twain interface              |

|                |                                      |
|----------------|--------------------------------------|
| OS             | Windows2000(Professional-SP4)        |
|                | Windows XP (Professional-SP2)        |
|                | Windows VISTA-Windows 2008           |
| PC requirement | CPU: Inter Pentium4 2.8GHz or higher |
|                | 1GB RAM or more                      |
|                | 1 Hi-speed USB 2.0Port               |
|                | 17" or 19"Monitor                    |

# Digital Camera for Microscope

5.6MP Color CCD series Part No:#5920

## **Fast Live Image (10 frames/sec. at 2720×2048)**

The digital microscope camera MDC560 allows for quick and precise setting of specimen and microscope, and hence provides comfortable operation. The fast live image, available in several resolutions, meets the requirements of professionals and makes the MDC560 a first choice imaging solution for usage in education institutes and training labs.

## **High Resolution and Good Color Reproduction**

Best image quality is the specialty of MDC560 cameras. Providing a resolution of up to 5.6 mega pixels and a subtle color differentiation, the microscope camera MDC560 captures excellent digital images, especially when contrast methods with high light intensities are applied. The integrated CCD sensor is absolutely resistant against blooming and shows superior performance in imaging highlights.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera MDC560 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The MDC560 camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

## **Making Superior Image Quality Affordable**

Ease of operation, high resolution and excellent color reproduction are the distinguishing features of the microscope camera MDC560. With 5.6 megapixel resolution, this camera is the ideal tool for high-quality image documentation and elementary image analysis.

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>   |
| Sensor           | <b>SUPER HAD CCD</b> 5.6M pixels, offering color image  |
| CCD Array        | 2720×2048 pixels  |
| Frame Rate       | 10 frames/sec. at 2720×2048 ,16 frames/sec. at 1360×1024  |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 2720×2048/1360×1024   |
| Sensitivity      | 0.45V 706cd/m <sup>2</sup> , color temperature of 3200K   |
| White balance    | Automatic or Manu   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA-Windows2008</b> are installed when shipping.No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more   |
|                  | 1GB RAM or more   |
|                  | 1 High-speed USB 2.0 Port   |
|                  | 19" Monitor or 22" ( <b>Recommended</b> )   |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost   |



# Digital Camera for Microscope

3.2MP Color CCD series Part No:#5910

## **Fast Live Image (15 frames/sec. at 2048×1536)**

The digital microscope camera MDC320 allows for quick and precise setting of specimen and microscope, and hence provides comfortable operation. The fast live image, available in several resolutions, meets the requirements of professionals and makes the MDC320 a first choice imaging solution for usage in education institutes and training labs.

## **High Resolution and Good Color Reproduction**

Best image quality is the specialty of MDC320 cameras. Providing a resolution of up to 3 mega pixels and a subtle color differentiation, the microscope camera MDC320 captures excellent digital images, especially when contrast methods with high light intensities are applied. The integrated CCD sensor is absolutely resistant against blooming and shows superior performance in imaging highlights.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera MDC320 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The MDC320 camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>   |
| Sensor           | <b>SUPER HAD CCD</b> 3.2M pixels, offering color image  |
| CCD Array        | 2720×2048 pixels  |
| Frame Rate       | 15 frames/sec. at 2048×1536,20 frames/sec. at 1024×768  |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 2048×1536 / 1024×768  |
| Sensitivity      | 0.4V 706cd/m <sup>2</sup> , color temperature of 3200K  |
| White balance    | Automatic or Manu   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA-Windows2008</b> are installed when shipping.No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more   |
|                  | 1GB RAM or more   |
|                  | 1 High-speed USB 2.0 Port   |
|                  | 19" Monitor or 22" <b>(Recommended)</b>   |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost   |

# Digital Camera for Microscope

2MP Color CCD series Part No:#5870

## High Resolution and Good Color Reproduction

Best image quality is the specialty of MDC200 cameras. Providing a resolution of up to 2 mega pixel and a subtle color differentiation, the microscope camera MDC200 captures excellent digital images, especially when contrast methods with high light intensities are applied. The integrated CCD sensor is absolutely resistant against blooming and shows superior performance in imaging highlights

## Fits Easily into any Laboratory

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera MDC200 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The MDC200 camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

It is ideal for a broad range of clinical, diagnostic, and educational applications with its rapid, real-time live display, stunning color, and crisp detail. Pathologists, cytologists, hematologists, and microbiologists are sure to love the accurate color reproduction of their specimens. This is also a great camera for a wide range of end users who require a camera for documentation purposes including bright fluorescence and dark field (low light level), On board hardware auto white balance, auto exposure, digital image processing. High speed, true color and excellent quality images. This all-in-one digital-imaging unit for taking high-contrast, crisp fluorescence, especially suitable for moderate moving object, such as for auto-focus (thus dynamic) , phase contrast (low contrast), differential interface contrast (low contrast), polarization microscopy.

|                  |  |
|------------------|--|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>  |
| Sensor           | <b>HPCCD</b> 2M pixels, offering color image   |
| CCD Array        | 1600×1200 pixels   |
| Frame Rate       | 12 frames/sec. at 1600×1200, 20 frames/sec. at 1024×768  |
| Data Format      | RGB 24   |
| Color            | Max 1.64 million 24Bit Color   |
| Video Mode       | 1600×1200 / 1024×768 / 800×600 / 640×480   |
| Sensitivity      | 0.5V 706cd/m <sup>2</sup> , color temperature of 3200K   |
| White balance    | Automatic or Manu  |
| Power Source     | From USB 2.0 Port  |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection  |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA</b> - <b>Windows2008</b> are installed when shipping.No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more  |
|                  | 512 GB RAM or more   |
|                  | 1 High-speed USB 2.0 Port  |
|                  | 17" Monitor or 19" ( <b>Recommended</b> )  |
| Software Disc    | Driver   |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost  |

# Digital Camera for Microscope

9MP Color CMOS series Part No: #5908

## **High Resolution and Good Color Reproduction**

Best image quality is the specialty of DCM900 cameras. Providing a resolution of up to 9 mega pixels and a subtle color differentiation, the microscope camera DCM900 captures excellent digital images, especially when contrast methods with high light intensities are applied. The integrated CMOS sensor is absolutely resistant against blooming and shows superior performance in imaging highlights.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM900 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM800 camera is dedicated to bright field and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

## **Making Superior Image Quality Affordable**

Ease of operation, high resolution and excellent color reproduction are the distinguishing features of the microscope camera DCM900. With 8 megapixel resolution, this camera is the ideal tool for high-quality image documentation and elementary image analysis.

## **Convenient to Use**

For daily tasks in laboratory routine, this cameras delivers perfect images at the touch of a button. The intuitive image acquisition software ScopePhoto for Microsoft Windows® provides comprehensive functionality. The camera control has already been directly integrated in many of the established image processing software packages. Hence, you are free to fully concentrate on your current project task

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>   |
| Sensor           | <b>SUPER COLOR CMOS</b> 9M pixels, offering color image   |
| CCD Array        | 3488×2616 pixels  |
| Frame Rate       | 1 frames/sec. at 3264×2448, Max. 30 frames/sec, <b>Support static capture</b>   |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 3488×2616/1600×1200 / 1024×768 / 640×480  |
| Sensitivity      | 1.4v/lux-sec @550nm   |
| White balance    | Automatic or Manu   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA</b> - <b>Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more   |
|                  | 1GB RAM or more   |
|                  | 1 High-speed USB 2.0 Port   |
|                  | 19" Monitor or 22" <b>(Recommended)</b>   |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> "  |

# Digital Camera for Microscope

8MP Color CMOS series Part No: #5900

## **High Resolution and Good Color Reproduction**

Best image quality is the specialty of DCM800 cameras. Providing a resolution of up to 8 mega pixels and a subtle color differentiation, the microscope camera DCM800 captures excellent digital images, especially when contrast methods with high light intensities are applied. The integrated CMOS sensor is absolutely resistant against blooming and shows superior performance in imaging highlights.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM800 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM800 camera is dedicated to bright field and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

## **Making Superior Image Quality Affordable**

Ease of operation, high resolution and excellent color reproduction are the distinguishing features of the microscope camera DCM800. With 8 megapixel resolution, this camera is the ideal tool for high-quality image documentation and elementary image analysis.

## **Convenient to Use**

For daily tasks in laboratory routine, this cameras delivers perfect images at the touch of a button. The intuitive image acquisition software ScopePhoto for Microsoft Windows® provides comprehensive functionality. The camera control has already been directly integrated in many of the established image processing software packages. Hence, you are free to fully concentrate on your current project task

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>   |
| Sensor           | <b>SUPER COLOR CMOS</b> 8M pixels, offering color image   |
| CCD Array        | 3264×2448 pixels  |
| Frame Rate       | 1 frames/sec. at 3264×2448 Max. 30 frames/sec, <b>Support static capture</b>  |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 3264×2448/1600×1200 / 1024×768 / 640×480  |
| Sensitivity      | 1.3v/lux-sec @550nm   |
| White balance    | Automatic or Manu   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA</b> - <b>Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more   |
|                  | 1GB RAM or more   |
|                  | 1 High-speed USB 2.0 Port   |
|                  | 19" Monitor or 22" <b>(Recommended)</b>   |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> "  |

# Digital Camera for Microscope

5MP Color CMOS series Part No: #5898

## **High Resolution and Good Color Reproduction**

Best image quality is the specialty of DCM510 cameras. Providing a resolution of up to 5 mega pixels and a subtle color differentiation, the microscope camera DCM510 captures excellent digital images, especially when contrast methods with high light intensities are applied. The integrated CMOS sensor is absolutely resistant against blooming and shows superior performance in imaging highlights.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM510 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM510 camera is dedicated to bright field and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

## **Making Superior Image Quality Affordable**

Ease of operation, high resolution and excellent color reproduction are the distinguishing features of the microscope camera DCM510. With 5 megapixel resolution, this camera is the ideal tool for high-quality image documentation and elementary image analysis.

## **Convenient to Use**

For daily tasks in laboratory routine, this cameras delivers perfect images at the touch of a button. The intuitive image acquisition software ScopePhoto for Microsoft Windows® provides comprehensive functionality. The camera control has already been directly integrated in many of the established image processing software packages. Hence, you are free to fully concentrate on your current project task

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>   |
| Sensor           | <b>SUPER COLOR CMOS</b> 5M pixels, offering color image   |
| CCD Array        | 2592×1944 pixels  |
| Frame Rate       | 7 frames/sec. at 2592×1944, Max. 30 frames/sec  |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 2592×1944 / 1280×960 / 800×600 / 640×480  |
| Sensitivity      | 1.2v/lux-sec @550nm   |
| White balance    | Automatic or Manu   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA</b> - <b>Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more   |
|                  | 1GB RAM or more   |
|                  | 1 High-speed USB 2.0 Port   |
|                  | 19" Monitor or 22" ( <b>Recommended</b> )   |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost   |



# Digital Camera for Microscope

5MP Color CMOS series Part No: #5890

## **High Resolution and Good Color Reproduction**

Best image quality is the specialty of DCM500 cameras. Providing a resolution of up to 5.2 mega pixels and a subtle color differentiation, the microscope camera DCM500 captures excellent digital images, especially when contrast methods with high light intensities are applied. The integrated CMOS sensor is absolutely resistant against blooming and shows superior performance in imaging highlights.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM500 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM500 camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy

## **Making Superior Image Quality Affordable**

Ease of operation, high resolution and excellent color reproduction are the distinguishing features of the microscope camera DCM500. With 5 megapixel resolution, this camera is the ideal tool for high-quality image documentation and elementary image analysis.

## **Convenient to Use**

For daily tasks in laboratory routine, this cameras delivers perfect images at the touch of a button. The intuitive image acquisition software ScopePhoto for Microsoft Windows® provides comprehensive functionality. The camera control has already been directly integrated in many of the established image processing software packages. Hence, you are free to fully concentrate on your current project task.

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show</b> & <b>Twain</b>  |
| Sensor           | COLOR CMOS 5M pixels, offering color image  |
| CCD Array        | 2592×1944 pixels  |
| Frame Rate       | 5 frames/sec. at 2592×1944  |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 2592×1944 / 2048×1536 / 1280×960 / 864×600  |
| Sensitivity      | 0.8v/lux-sec @550nm   |
| White balance    | Automatic or Manual   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA</b> - <b>Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more   |
|                  | 512MB RAM or more   |
|                  | 1 High-speed USB 2.0 Port   |
|                  | 19" Monitor or 22" <b>(Recommended)</b>   |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost   |

# Digital Camera for Microscope

3.2MP Color CMOS series Part No: #5888

## **Fast Live Image**

The digital microscope camera DCM310 allows for quick and precise setting of specimen and microscope, and hence provides comfortable operation. The fast live image, available in several resolutions, meets the requirements of professionals and makes the DCM310 a first choice imaging solution for usage in education institutes and training labs.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM310 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM310 camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

## **Making Superior Image Quality Affordable**

Ease of operation, high resolution and excellent color reproduction are the distinguishing features of the microscope camera DCM310. With 3.2 mega pixels resolution, this camera is the ideal tool for high-quality image documentation and elementary image analysis.

|                  |  |
|------------------|--|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>  |
| Sensor           | <b>Enhanced COLOR CMOS</b> 3.2M pixels, offering color image   |
| CCD Array        | 2048×1536 pixels   |
| Frame Rate       | 11 frames/sec. at 2048×1536, Max. 50 frames/sec  |
| Data Format      | RGB 24   |
| Color            | Max 1.64 million 24Bit Color   |
| Video Mode       | 2048×1536 / 1024×768 / 640×480 / 512×384   |
| Sensitivity      | 1.5v/lux-sec @550nm  |
| White balance    | Automatic or Manu  |
| Power Source     | From USB 2.0 Port  |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection  |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA-Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more  |
|                  | 512MB RAM or more  |
|                  | 1 High-speed USB 2.0 Port  |
|                  | 17" Monitor or 19" <b>(Recommended)</b>  |
| Software Disc    | Driver   |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost  |

# Digital Camera for Microscope

3.2MP Color CMOS series Part No:#5880

## ***Fast Live Image***

The digital microscope camera DCM300 allows for quick and precise setting of specimen and microscope, and hence provides comfortable operation. The fast live image, available in several resolutions, meets the requirements of professionals and makes the DCM300 a first choice imaging solution for usage in education institutes and training labs.

## ***Fits Easily into any Laboratory***

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM300 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM300 camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

## ***Making Superior Image Quality Affordable***

Ease of operation, high resolution and excellent color reproduction are the distinguishing features of the microscope camera DCM300. With 3.2 mega pixels resolution, this camera is the ideal tool for high-quality image documentation and elementary image analysis.

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>   |
| Sensor           | COLOR CMOS 3.2M pixels, offering color image  |
| CCD Array        | 2048×1536 pixels  |
| Frame Rate       | 4 frames/sec. at 2048×1536  |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 2048×1536 / 1600×1200 / 1280×1024 / 1024×768 / 800×600  |
| Sensitivity      | 1.0v/lux-sec @550nm   |
| White balance    | Automatic or Manu   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA</b> - <b>Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.4GHz or more   |
|                  | 512MB RAM or more   |
|                  | 1 Hi-speed USB 2.0 Port   |
|                  | 17" Monitor or 19" <b>(Recommended)</b>   |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost   |



# Digital Camera for Microscope

1.3MP Color CMOS series Part No: #5860

## **Fast Live Image**

The digital microscope camera DCM130 allows for quick and precise setting of specimen and microscope, and hence provides comfortable operation. The fast live image, available in several resolutions, meets the requirements of professionals and makes the DCM130 a first choice imaging solution for usage in education institutes and training labs.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM130 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM130 camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

Based on the consideration of the color temperature of microscope illumination, DCM130 makes the image with excellent true color. If the microscope adapted with DCM130 is earthed definitely, the metal body of the camera ensures wonderful anti-interference.

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>   |
| Sensor           | COLOR CMOS 1.3M pixels, offering color image  |
| CCD Array        | 1280×1024 pixels  |
| Frame Rate       | 15 frames/sec. at 1280×1024, 30 frames/sec. at 640×480  |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 1280×1024 / 640×480 / 352×288   |
| Sensitivity      | 1.8v/lux-sec @550nm   |
| White balance    | Automatic or Manu   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA</b> - <b>Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.0GHz or more   |
|                  | 512MB RAM or more   |
|                  | 1 Hi-speed USB 2.0 Port   |
|                  | 15" Monitor or 17" <b>(Recommended)</b>   |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost   |

# Digital Camera for Microscope

1.3MP Color CMOS series Part No: #5866

## **Fast Live Image**

The digital microscope camera DCM130E is the advanced version of DCM130, it allows for quick and precise setting of specimen and microscope, and hence provides comfortable operation. The fast live image, available in several resolutions, meets the requirements of professionals and makes the DCM130E a first choice imaging solution for usage in education institutes and training labs.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM130 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM130E camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

Based on the consideration of the color temperature of microscope illumination, DCM130E makes the image with excellent true color. If the microscope adapted with DCM130E is earthed definitely, the metal body of the camera ensures wonderful anti-interference.

|                  |  |
|------------------|--|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>  |
| Sensor           | <b>Enhanced COLOR CMOS</b> 1.3M pixels, offering color image   |
| CCD Array        | 1280×1024 pixels   |
| Frame Rate       | 15-20 frames/sec. at 1280×1024, 30 frames/sec. at 640×480  |
| Data Format      | RGB 24   |
| Color            | Max 1.64 million 24Bit Color   |
| Video Mode       | 1280×1024 / 640×480 / 352×288  |
| Sensitivity      | 2.0v/lux-sec @550nm  |
| White balance    | Automatic or Manu  |
| Power Source     | From USB 2.0 Port  |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection  |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA-Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 2.0GHz or more  |
|                  | 512MB RAM or more  |
|                  | 1 Hi-speed USB 2.0 Port  |
|                  | 15" Monitor or 17" <b>(Recommended)</b>  |
| Software Disc    | Driver   |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost  |

# Digital Camera for Microscope

350KP Color CMOS series Part No: #5830

## **Fast Live Image**

The digital microscope camera DCM35 allows for quick and precise setting of specimen and microscope, and hence provides comfortable operation. The fast live image, available in several resolutions, meets the requirements of professionals and makes the DCM35 a first choice imaging solution for usage in education institutes and training labs.

## **Fits Easily into any Laboratory**

Configured with standard interfaces such as eyepiece tube or C-Mount and USB2.0, the microscope camera DCM35 easily connects to any microscope and computer. Delivery includes MiniSee or ScopePhoto image acquisition software with comprehensive functionality designed for intuitive handling. The DCM35 camera is dedicated to brightfield and reflective light microscopy, but also suitable for many other contrast methods in light microscopy.

Based on the consideration of the color temperature of microscope illumination, DCM35 makes the image with excellent true color. If the microscope adapted with DCM35 is earthed definitely, the metal body of the camera ensures wonderful anti-interference.

|                  |   |
|------------------|---|
| PC Interface     | USB 2.0, <b>Direct Show &amp; Twain</b>   |
| Sensor           | COLOR CMOS 350K pixels, offering color image  |
| CCD Array        | 640×480 pixels  |
| Frame Rate       | 30 frames/sec. at 640×480   |
| Data Format      | RGB 24  |
| Color            | Max 1.64 million 24Bit Color  |
| Video Mode       | 640×480 / 320×240   |
| Sensitivity      | 2.0v/lux-sec @550nm   |
| White balance    | Automatic or Manu   |
| Power Source     | From USB 2.0 Port   |
| Image Control    | Color-Brightness / Gamma Correction / Exposure-Sharpness Adjustment / Auto, 50/60 Hz light auto detection   |
| Operating System | <b>Windows2000</b> (Professional-SP4) - <b>WindowsXP</b> (Professional-SP2) - <b>Windows VISTA</b> - <b>Windows2008</b> are installed when shipping. No working if specifications up to reach of above after shipment |
| Basic PC*        | CPU equivalent to Inter Pentium4 1.8GHz or more   |
|                  | 256MB RAM or more   |
|                  | 1 Hi-speed USB 2.0 Port   |
|                  | 15" Monitor or 17"  |
| Software Disc    | Driver  |
|                  | Image Software " <b>ScopePhoto Ver 3.0</b> " available for option at extra cost   |

# Low cost Digital Eyepiece for Microscope

Driverless Color CMOS series



|                     |  |              |              |           |           |
|---------------------|--|--------------|--------------|-----------|-----------|
| PC Interface        | USB 1.0 / 2.0, <b>Direct Show</b> , <b>VFW</b> & <b>Twain</b>                      |              |              |           |           |
| Model               | DEM35  | DEM130       | DEM200       | DEM300    | DEM500    |
| Part Number         | #5820  | #5821        | #5822        | #5823     | #5825     |
| CMOS Array          | 640×480  | 1280×1024    | 1600×1200    | 2048×1536 | 2592×1944 |
| Frame Rate          | 30 fps   | 15 fps       | 12 fps       |           |           |
| Sensitivity(@550nm) | 2.0v/lux-sec   | 1.0v/lux-sec | 1.0v/lux-sec |           |           |
| Dynamic Range       | 60dB   | 68dB         | 71dB         |           |           |
| Power Source        | From USB Port  |              |              |           |           |
| Image Control       | Image size, brightness, contrast, Hue, Sharpness, Gamma, white balance             |              |              |           |           |
| Operating System    | Windows 2000(SP4)<br>Windows XP (SP2)<br>Windows VISTA<br>Windows 2008             |              |              |           |           |
| Basic PC*           | CPU equivalent to Inter Pentium4 1.8GHz or more                                    |              |              |           |           |
|                     | 256MB RAM or more  |              |              |           |           |
|                     | 1 USB Port   |              |              |           |           |
|                     | 15" Monitor or larger  |              |              |           |           |
| Software            | Driver not required, Real plug and play  |              |              |           |           |
|                     | Image Software " <b>MiniSee</b> " available for free download from OPLENIC website |              |              |           |           |

# Video Camera for Microscope

XGA / UGA series Part No:#5852/5853

## **Fast Live Image(60 frames per second-VCM80)**

The digital microscope camera VCM80/200(#5852/3) allows for quick and precise setting of specimen and microscope, and hence provides comfortable operation. The fast live image, available in several resolutions, meets the requirements of professionals and makes the VCM80/200 a first choice imaging solution for usage in industry and training labs.



## ◆ #5852 / #5853 SPECIFICATIONS:

| Model              | #5852 VCM80   | #5853 VCM200   |
|--------------------|---|--|
| Output Interface   | 15pin D-SUB   |  |
| Sensor             | SUPER COLOR CMOS 800K pixels,                         | SUPER COLOR CMOS 2M pixels,  |
| Maximum Resolution | 1024×768 pixels                                       | 1280×1024 pixels   |
| Frame Rate         | <b>60 frames/sec. at 1024×768</b>                     | 20 frames/sec. at 1280×1024  |
| Color              | Max 1.64 million 24Bit Color                          |  |
| Video Mode         | Full screen 1024×768                                  | Full screen<br>1440×900 / 1280×720 (Wide Screen)<br>1280×1024 / 1024×768 |
| White balance      | Automatic or Manu                                     |  |
| Operating Voltage  | DC 5V (AC110V-220V adaptor included)                  |  |
| Image Control      | Color-R-G-B / Gain/                                   |  |
| Monitor            | 17" Monitor or 19" LCD Monitor ( <b>Recommended</b> ) |  |
| Dimensions         | 70mm×52mm×52mm  | 120mmX56mmX53mm  |



**High-Definition, No PC Required**



# Video Camera for Microscope

RCA series Part No:#5835/5836

ACM35 is a video camera professionally designed for microscope. It works perfectly with all kinds of optical microscopes, such as biological microscope, metallurgical microscope and stereomicroscope. The images of the observed specimen or samples will be genuinely displayed on TV screen. ACM35 employs newly designed optical system of fully coated, based on MTF (Modulation Transfer Function) analysis, for improved image flatness and contrast. The images are brighter and distinct even at the periphery of the field of view. It offers excellent performance when combined with plan-achromatic objectives system. Especially, it matches the specific characters of microscope, such as the parfocalization of objectives. ACM35 has a wide field, which matches microscope's field of view. ACM35 is inserted directly into the ocular-tube or the photo-tube for operation. With the adaptor Dia.30mm or the adaptor Dia.30.5mm included, it is also workable on a stereomicroscope.

ACM35 Video Camera Looks Like an eyepiece. It Can be Easily Inserted into Eyepiece Tube of Microscope. The Video Micro-Image Displays Immediately on TV Set. It is Suitable for Image Demonstration. High Resolution TURE COLOR CMOS Chip. 420 TV lines Supplies a Nice Image on TV Set.



## SPECIFICATIONS:

|                   |  |                       |
|-------------------|--|-----------------------|
| Image Sensor      | 1/3" CMOS chip, 350K pixels, offering color image        |                       |
| Resolution        | PAL (628X582 pixels)                                     | NTSC (510X492 pixels) |
| Output            | RCA  |                       |
| Min. illumination | < 5LUX @ F1.4 3000K                                      |                       |
| S/N Ratio         | 40dB   |                       |
| Power Adaptor     | 220V / 50Hz-60Hz   | 110V/50Hz-60Hz        |
| Exposure          | Auto-exposure  |                       |
| White-balance     | White-balance, controlled by a manual button on the body |                       |
| View field        | Inscribed rectangle of D18 mm                            |                       |
| Mounting port     | Microscope ocular-tube or photo-tube                     |                       |
| Accessories       | Two adaptors (Dia.30mm, Dia.30.5mm, one each)            |                       |
| Camera size       | Blackened metal body of cylinder shape Dia.50 mm         |                       |

# Stereo Zoom Microscope

## Stereo Zoom Microscope SMZ880

### Parallel Optical System with 3A Design



The SMZ Stereo Zoom Microscope series is designed for all industrial, electronic, and medical manufacturing applications. With a new rugged and airtight housing and unbreakable eyepiece ports it is perfect for the rigors of the assembly or manufacturing environment. With the SMZ series you will be able to view or inspect our work with unequaled clarity yet know that the durability of the microscope will never be compromised. With a wide variety of stands, lighting and accessories you will be able to find the perfect system to meet your needs.

The SMZ series are **Airtight** (prevents contamination from dust, oil, and water which reduces regular maintenance and services), **Anti-mold** (ensures the safety of the microscope when used in high heat or humidity environment), and **Anti-electrostatic** (design to discharge the inner static electricity almost instantly which prevents sensitive applications from being damaged). Thus it eliminates the cost of regular maintenance.

#### Features and Specifications:

- Objective zoom range: 0.8x ~ 8x
- Zoom Ratio: 10:1
- Eyepiece inclination: 45°
- 3A Design, Meets ESD requirements
- Interpupillary Adjustment: 52mm - 75mm
- Ergonomic design for effortless observation

- Low position focus knob for quick easy focusing
- Eyepieces with built in diopter adjuster

#### Optional Accessories:

- Auxiliary Objective Lenses: 0.5X and 1X
- Eyepieces: 10X, 15X, and 20X
- CCD digital eyepiece camera

| Objective                      | Zoom Ratio <b>10:1</b> , 0.8X ~ 8X (4X~160X) |            |                    |
|--------------------------------|--|------------|--------------------|
| <b>Auxiliary Objective</b>     | 1X Plan Achromatic                           |            |                    |
| <b>Working Distance</b>        | 78 mm  |            |                    |
| <b>Eyepiece</b>                | 10X / 22mm                                   | 15X / 16mm | 20X / 12.5mm       |
| <b>Magnification</b>           | 8X ~ 80X                                     | 12X ~ 120X | 16X ~ 160X         |
| <b>Visual field</b>            | 25.7~8.8mm                                   | 20.0~2.0mm | 15.6~1.6mm         |
| <b>Auxiliary Objective</b>     | 0.5X Achromatic                              |            |                    |
| <b>Working Distance</b>        | 123 mm                                       |            |                    |
| <b>Eyepiece</b>                | 10X / 22mm                                   | 15X / 16mm | 20X / 12.5mm       |
| <b>Magnification</b>           | 4X ~ 40X                                     | 6X ~ 60X   | 8X ~ 80X           |
| <b>Visual field</b>            | 55.0~5.6mm                                   | 40.0~4.0mm | 32.2~3.2mm         |
| <b>Eyepiece inclinations</b>   | 20 angle from the horizontal,                |            |                    |
| <b>Interpupillary Distance</b> | 52mm~75mm                                    |            |                    |
| <b>3A Design</b>               | Airtight                                     | Anti-mold  | Anti-electrostatic |

# Stereo Zoom Microscope

## Stereo Zoom Microscope SMZ850



The SMZ Stereo Zoom Microscope series is designed for all industrial, electronic, and medical manufacturing applications. With a new rugged and airtight housing and unbreakable eyepiece ports it is perfect for the rigors of the assembly or manufacturing environment. With the SMZ series you will be able to view or inspect our work with unequaled clarity yet know that the durability of the microscope will never be compromised. With a wide variety of stands, lighting and accessories you will be able to find the perfect system to meet your needs.

The SMZ series are **Airtight** (prevents contamination from dust, oil, and water which reduces regular maintenance and services), **Anti-mold** (ensures the safety of the microscope when used in high heat or humidity environment), and **Anti-electrostatic** (design to discharge the inner static electricity almost instantly which prevents sensitive applications from being damaged). Thus it eliminates the cost of regular maintenance.

### Features and Specifications:

- Objective zoom range: 0.8x ~ 5x
- Zoom Ratio: 6.3:1
- Eyepiece inclination: 45°
- Interpupillary Adjustment: 52mm - 75mm
- Ergonomic design for effortless observation
- 3A Design, Meets ESD requirements

- Low position focus knob for quick easy focusing
- Eyepieces with built in diopter adjuster

### Optional Accessories:

- Auxiliary Objective Lenses: 0.5X and 2X
- Eyepieces: 10X, 15X, and 20X
- CCD digital eyepiece camera

### Head and Stand:



Binocular

Trinocular

Track Stand

Post Stand



# Stereo Zoom Microscope

## Stereo Zoom Microscope SMZ730



Precision at its finest! Using high grade optics and precise mechanical assembly; the SMZ Series provides clear and aberration free 3D images; which stay in focus throughout the entire magnification range. A 4.3:1 zoom ratio and a 0.7x ~ 3x objective zoom range. It is designed for all industrial, electronic, and medical manufacturing applications. With a new rugged and airtight housing and unbreakable eyepiece ports it is perfect for the rigors of the assembly or manufacturing environment. With the SMZ series you will be able to view or inspect our work with unequaled clarity yet know that the durability of the microscope will never be compromised. With a wide variety of stands, lighting and accessories you will be able to find the perfect system to meet your needs.

The SMZ series are **Airtight** (prevents contamination from dust, oil, and water which reduces regular maintenance and services), **Anti-mold** (ensures the safety of the microscope when used in high heat or humidity environment), and **Anti-electrostatic** (design to discharge the inner static electricity almost instantly which prevents sensitive applications from being damaged). Thus it eliminates the cost of regular maintenance.

### Features and Specifications:

- Objective zoom range: 0.7x ~ 3x
- Zoom Ratio: 4.3:1
- Eyepiece inclination: 45°
- Interpupillary Adjustment: 52mm - 75mm
- Ergonomic design for effortless observation
- 3A Design, Meets ESD requirements

- Low position focus knob for quick easy focusing
- Eyepieces with built in diopter adjuster

### Optional Accessories:

- Objective Lenses: 2X
- Eyepieces: 10X, 15X, and 20X
- CCD digital eyepiece camera

### Track Stand and Post Stand:



Track Stand



Post Stand



Track Stand



Post Stand

# Industrial Stereo Microscope

## Stereo Zoom Microscope SZM745



The SZM Stereo Zoom Microscope series is designed for normal industrial, education, and medical researches, safety industry, scientific and didactic laboratories, quality controls, besides being used for detailed examinations and for accurate assemblies of electrical – mechanical components. Thanks to the zoom objective 0.7 to 4.5 magnification, continuously adjustable by two coaxial focusing system, offer a clear image with a real reproduction of all the colors.

### Features and Specifications:

- Objective zoom range: 0.7x ~ 4.5x
- Zoom Ratio: 6.4:1
- Eyepiece inclination: 45°
- Interpupillary Adjustment: 54mm - 75mm

### Optional Accessories:

- Auxiliary Objective Lenses: 0.5X, 1X, 1.5X and 2X
- Eyepieces: 10X, 15X, and 20X
- CCD digital eyepiece camera

### Head and Stand:



Binocular



Trinocular



Track Stand



Post Stand

|                                |                               |               |            |
|--------------------------------|-------------------------------|---------------|------------|
| <b>Working Distance</b>        | 100 mm                        |               |            |
| <b>Eyepiece</b>                | 10X / 20mm                    | 15X / 15mm    | 20X / 10mm |
| <b>Magnification</b>           | 7X ~ 30X                      | 10.5X ~ 67.5X | 14X ~ 90X  |
| <b>Visual field</b>            | 28.6~4.4mm                    | 21.1~3.3mm    | 14.3~2.2mm |
| <b>Auxiliary Objective</b>     | 0.5X                          |               |            |
| <b>Working Distance</b>        | 165 mm                        |               |            |
| <b>Eyepiece</b>                | 10X / 20mm                    | 15X / 15mm    | 20X / 10mm |
| <b>Magnification</b>           | 3.5X ~ 22.5X                  | 5.25X ~ 33.8X | 7X ~ 45X   |
| <b>Visual field</b>            | 57.1~8.9mm                    | 42.8~6.7mm    | 28.6~4.4mm |
| <b>Eyepiece inclinations</b>   | 45 angle from the horizontal, |               |            |
| <b>Interpupillary Distance</b> | 54mm~75mm                     |               |            |

# Industrial Stereo Microscope

## Stereo Microscope STL240



STL series stereo microscope can provide high definition image of observation specimen. This series equip special maximum working distance at different viewing angles. This product is extensively applied to such domains as educational demonstration, biological anatomy, electronic industry and police observation and analysis etc.

### Features and Specifications:

- Objective lens: Turret 2x and 4x
- Eyepiece inclination: 45° inclined, 360° rotatable
- Diopter adjustment of range  $\pm 5$ mm
- Interpupillary Adjustment: 55mm - 75mm
- Working distance: 100mm
- Low position focus knob for quick easy focusing

### Optional Accessories:

- Eyepieces: 10X, 15X, and 20X
- CCD digital eyepiece camera
- Fluorescent Ring Light
- Head with objective lens: Turret objective 1X/2X and 1X/3X

(**STL120** and **STL130**)

### Head and Stand:



Binocular

Trinocular

Track Stand

Post Stand

| Objective                  | 1X / 2X    |            |            |
|----------------------------|------------|------------|------------|
| Eyepiece                   | 10X / 20mm | 15X / 15mm | 20X / 10mm |
| Magnification Visual field | 10X/20mm   | 15X/15mm   | 20X/10mm   |
| Objective                  | 1X / 2X    |            |            |
| Eyepiece                   | 10X / 20mm | 15X / 15mm | 20X / 10mm |
| Magnification Visual field | 20X/10mm   | 30X/7.5mm  | 40X/5mm    |
| Objective                  | 1X / 3X    |            |            |
| Eyepiece                   | 10X / 20mm | 15X / 15mm | 20X / 10mm |
| Magnification Visual field | 30X/6.7mm  | 45X/5mm    | 60X/3.3mm  |
| Objective                  | 2X / 4X    |            |            |
| Eyepiece                   | 10X / 20mm | 15X / 15mm | 20X / 10mm |
| Magnification Visual field | 40X/5mm    | 60X/3.75mm | 80X/2.5mm  |

# Micro Lens Inspection Microscope

## Micro Lens Microscope STE635/745



The STE series Micro Zoom lens is designed for normal optical performance, high magnification, flexibility, and low cost. The micro zoom body has a 0.63X to 5X objective range with built-in detents and internal focus allows easy measurement for repeating magnification and gives precise focus control under high magnification.

There are many accessories of video couplers and auxiliary lenses are available to provide a total system magnification of up to 500x and working distance of up to 10 inches.

The Micro zoom lens must be used with a video coupler in order to function properly.

|                           |                          |                           |
|---------------------------|--------------------------|---------------------------|
| <b>Working Distance</b>   | 95 mm                    |                           |
| <b>CCD camera adaptor</b> | 0.5X Dia.28mm to C-mount | 0.5X Dia.28mm to C-mount  |
| <b>Magnification</b>      | <b>0.63X ~ 5X</b>        | <b>0.7X ~ 4.5X</b>        |
| <b>Visual field</b>       | 31.5~3.8mm               | 28.6~4.4mm                |
| <b>Stand size</b>         | 390X270X28mm             |                           |
| <b>Accessory</b>          | Auxiliary Objective      | 0.3X/0.5X/0.75X/1.5X/2X   |
|                           | CCD Camera lens adaptor  | 0.3X lens                 |
|                           | C-mount Camera           | USB series and XGA series |
|                           | X-Y stage                | Moving range: 55mmX75mm   |



USB series

XGA series

Dual Arm Boom Stand

Flexible Arm Stand

# Accessories for Microscope

## Digital Auto Focus System for microscope DAF



This system offers the following advantages: high precision, fast focusing speed and outstanding stability. With the advanced PC software control, the auto focus system outputs images through PC monitor or projector, therefore it is very easy and availability and can be used in all kinds of microscope observation system with z-axis control.

DAF Microscope auto focus system provides two kinds of observation methods, binocular observation and image acquisition by digital CCD camera / eyepiece. It is easy to use z-axis control both in observation and auto focus processes. The auto focus system consists of digital CCD camera / eyepiece, z-axis controller and auto focus circuit controller, and it can be widely used in rapid detection application in biology and semiconductor industry

| Objective Power    | 4X/5X    | 10X      | 20X/40X/50X | 60X/80X/100X |
|--------------------|----------|----------|-------------|--------------|
| Focusing range     | ±1mm     | ±0.6mm   | ±0.1mm      | ±0.05mm      |
| Focusing time      | 2~3 sec. | 1~2 sec. | 1 sec.      | 1 sec.       |
| Focusing precision | 7.5um    | 2.5um    | 0.75um      | 0.5um        |

## Analog Auto Focus System for microscope AAF



This system offers the following advantages: high precision, fast focusing speed and outstanding stability. With the circuit control instead of PC control, the auto focus system outputs images through TV monitor or projector, therefore it is very easy and availability and can be used in all kinds of microscope observation system with z-axis control.

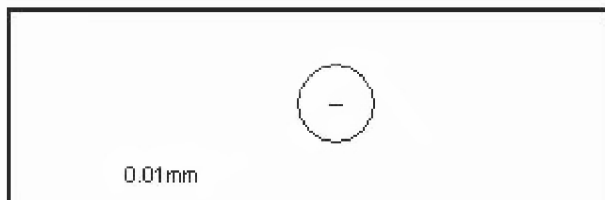
AAF Microscope auto focus system provides two kinds of observation methods, binocular observation and image acquisition by analog CCD camera / eyepiece. It is easy to use z-axis control both in observation and auto focus processes. The auto focus system consists of analog CCD camera / eyepiece, z-axis controller and auto focus circuit controller, and it can be widely used in rapid detection application in biology and semiconductor industry

| Objective Power    | 4X/5X    | 10X      | 20X/40X/50X | 60X/80X/100X |
|--------------------|----------|----------|-------------|--------------|
| Focusing range     | ±1mm     | ±0.6mm   | ±0.1mm      | ±0.05mm      |
| Focusing time      | 2~3 sec. | 1~2 sec. | 1 sec.      | 1 sec.       |
| Focusing precision | 7.5um    | 2.5um    | 0.75um      | 0.5um        |



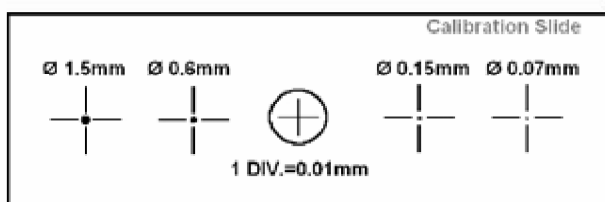
# Accessories for Microscope

## Calibration Slide TS-M1



X Ruler - 100 divisions of 0.01 mm

## Calibration Slide TS-M2



1. Circular objects for verifying aspect ratio - diameters of 1.5mm
2. Circular objects for verifying aspect ratio - diameters of 0.6mm
3. X & Y Ruler - 100 divisions of 0.01 mm
4. Circular objects for verifying aspect ratio - diameters of 0.15mm
5. Circular objects for verifying aspect ratio - diameters of 0.07mm



# Accessories for Microscope

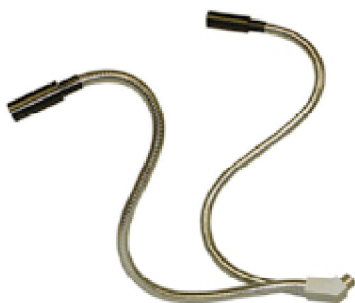
## Light and Illuminator



**Fluorescent Ring Light**



**Fiber Optic Illuminator**



**Dual Pipe Light**



**Annular Ring Light**

**Fluorescent Ring Light: M-IL-FLR**

**Dual Pipe Light: M-IL-FDP**

**Annular Ring Light: M-IL-FAR**

**LED Ring Light: M-IL-LED**

# Accessories for Microscope

## Stereo Microscope Head



**Stereo Zoom Microscope Body (Part No.)**  
 ■ M-BD-B2 Binocular



■ M-BD-T2 Trinocular



■ M-BD-B3 Binocular



■ M-BD-T3 Trinocular



**Stereo Zoom Microscope Body (Part No.)**  
 ■ M-BD-B1 Binocular



■ M-BD-B5 Binocular



■ M-BD-B6 Binocular



■ M-BD-T6 Trinocular



**Stereo Microscope Body (Part No.)**  
 ■ M-BD-B7 Binocular



■ M-BD-T7 Trinocular



# Accessories for Microscope

## Stand for stereo microscope



**Post Stand**



**Track Stand**



**Strong Arm Boom Stand**



**Dual Arm Boom Stand**

# Accessories for Microscope

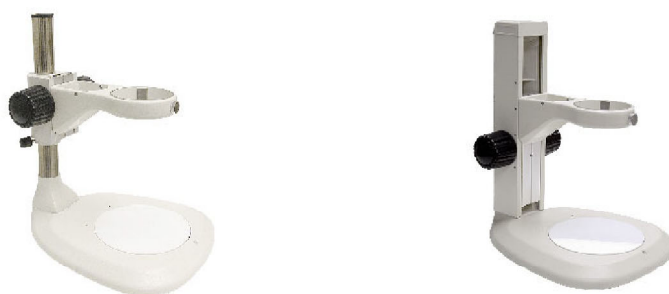
## Microscope Focus Mount



### Stereo Microscope focus Mount (Part No.)

- M-FM-T1 (for Track Stand)
- M-FM-P1 (for Post Stand)
- M-FM-P2 (for Post Stand)

## Microscope Stand



### Stereo Microscope Stand (Part No.)

- M-SD-SP1
- M-SD-ST1



### Stereo Microscope Stand (Part No.)

- M-SD-SP2
- M-SD-BM1
- M-SD-BM2

# Accessories for Microscope

## Camera Photo Lens Adaptor

Photo tube or eyepiece tube to Camera C-mount

0.5X video Couple

0.6X video Couple

0.7X video Couple

For **Olympus** Microscope Use

For **Leica** Microscope Use

For **Nikon** Microscope Use

0.5X video Couple

1X video Couple

1X / 0.63X video Couple



## Ocular Adaptor

23.2mm to 30.0mm Couple    23.2mm to 30.5mm Couple

## Eyepiece and Objective Lens

Dia.23.2mm WF10X/18mm Biological microscope eyepiece    Dia.23.2mm P16 Biological microscope eyepiece

30.0mm WF10X/20mm Stereo Microscope eyepiece    30.0mm WF10X/22mm Stereo Microscope eyepiece

30.0mm WF15X/16mm Stereo Microscope eyepiece    30.0mm WF20X/12.5mm Stereo Microscope eyepiece

0.5X / 1X / 1.5X / 2X Auxiliary Objective for SMZ series stereo microscope

1X / 2X / 4X / 5X / 10X / 20X / 40X / 60X / 100X ACH Objective for biological microscope

4X / 10X / 20X / 40X / 100X Plan Objective for biological microscope

4X / 10X / 20X / 40X / 50X / 80X Infinity Plan Objective for metallurgical microscope

# Spotting Scope

## APO & ED optical system



### Features and Specifications:

- 1) The spotting scopes are built with metal body and optical glass. The body is done by rubber painting.
- 2) Each scope comes with a zoom eyepiece F8-24mm.
- 3) FS80 Series is equipped with achromatic objective and FS80ED Series with **Apo-chromatic** objective. The combination of the objective and the wide-field zoom eyepiece builds up the quality optical system offering sharp and clear image.
- 4) The multi-coated optical system offers bright image and excellent resolution. With these scopes of high resolution, the

operator could recognize the shoot holes on the target 500m away.

- 5) The body is sealed with nitrogen gas and this makes the scope waterproof completely. The sealing is done by rubber sealing-rings, not by silicon glue. The rubber sealing-rings ensure reliability and long lifetime. This makes water and dusts never enter into its body. If there is a big change of temperature in open field, good resolution and observation are still available from the scopes.
- 6) The excellent mechanism obtains smooth and reliable performance.
- 7) An adaptor is included with each spotting scope. It is especially designed for mounting the Pro-MicroScan series PC digital camera onto the scopes.
- 8) Pro-MicroScan series camera adaptor, specially designed for the spotting scopes, is available for option

| Model    | Part No: | Magnification | Eyepiece Zoom | Objective | Field of View | Exit Pupil (mm) | Resolution | View Distance |
|----------|----------|---------------|---------------|-----------|---------------|-----------------|------------|---------------|
| FS80-S   | #3001    | 20X- 60X      | F8-24mm Zoom  | D80mm     | 17m-32m       | Ø1.3-4mm        | 1.7"       | 15m -∞        |
| FS80-A   | #3002    | Zoom          |               | F480mm    | (at 1000m)    | D19-24mm        |            |               |
| FS80ED-S | #3011    | 20X- 60X      |               | D80mm     | 17m-32m       | Ø 1.3-4mm       | 1.8"       | 15m ∞         |
| FS80ED-A | #3012    | Zoom          |               | F480mm    | (at 1000m)    | D19-24mm        |            |               |

### Option High-Grade Eyepiece:

#### 1) 65"FIELD OF VIEW Nagler Eyepiece

|       |          |       |
|-------|----------|-------|
| 1.25" | F20-65   | #3031 |
| 1.25" | F17.5-65 | #3032 |
| 1.25" | F15-65   | #3033 |
| 1.25" | F12.5-65 | #3034 |
| 1.25" | F10-65   | #3035 |

#### 2)80"FIELD OF VIEW Nagler Eyepiece

|       |             |       |
|-------|-------------|-------|
| 1.25" | F15-80      | #3036 |
| 1.25" | F8-24(Zoom) | #3037 |

#### 3)Erfile Eyepiece



#3038



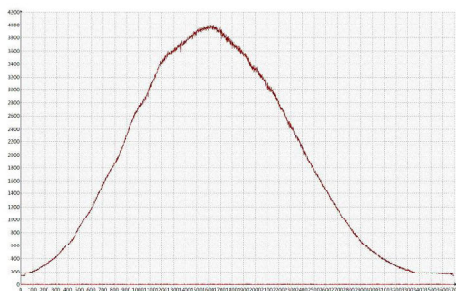
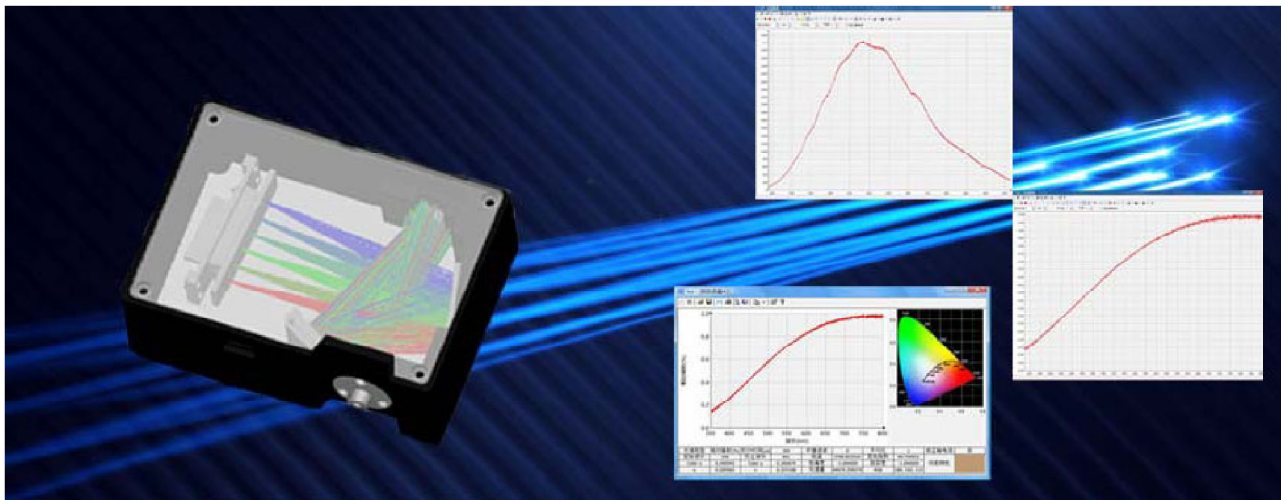
# Digital Fiber Spectrometer

## Compact Digital Fiber Spectrometer STDFSM2066/3666

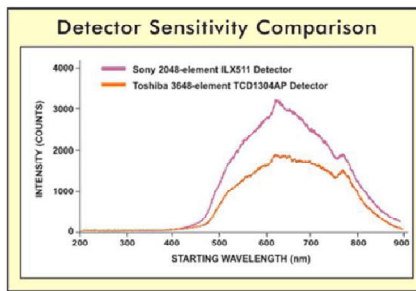


STDFSM digital micro fiber spectrometer series are applicable for spectral detection within the wavelength range between 200nm and 1100nm. Due to the high stability and system performance, these portable instruments can greatly satisfy the increasing need for scientific research, industrial manufacture, online detections and so on. They are capable of measuring spectral power distribution, absorbance, transmission, reflection, relative irradiance, chromaticity coordinates, color temperature, color rendering index, color tolerance, color difference, color purity, main wavelength, luminous flux, luminance, irradiance power and luminous efficiency .etc of various kinds of samples, light sources and display devices. Besides they can also be utilized to achieve photochromic analysis of fluorescence lamps, high pressure gas discharge light sources, halogen - tungsten lamps,

medical light sources, semi - conductor lighting devices and display devices as CRT, LCD, PDP, ELD, VFD. STDFSM digital micro fiber spectrometer can offer the optimal solutions for spectral detections. With different system configurations and sampling accessories, STDFSM digital micro fiber spectrometer can achieve high spectral resolution up to 0.2nm, stable wide, narrow and line spectrums with different optical interfaces. Furthermore, with the easy - to - use basic operating software and high efficient SDK, end users could easily achieve various kinds of spectral detection systems to meet their own goals.



Left: STDFSM3666's



Right: A world famous brand's