# Live Digital Camera for Microscopy



MD & MCseries camera are designed to satisfy the unique and various demands of microscopy application, life science and material science.

## MD30 3.0Mega Pixel CMOS USB2.0 Camera

The camera designed to be cost-effective, versatile solution for a variety of microscopy imaging application. Features include auto white balance, full exposure control, programmable gain, sub-windowing and reagion of interest. This product excellent fit for documentation and archiving your application.

### MC30 3.1Mega Pixel CCD USB2.0 Camera

Equipped with a high-quality Sony CCD sensor, MC digital CCD camera offer excellent sensitivity, high dynamic range and 12bit digital output. Features include auto white balance, full exposure control, programmable gain, reagion of interest and sub-windowing. MC30 is ideal for high-end scientific, medical and life science application.

## MC50 5.0Mega Pixel Cooled CCD USB2.0 Camera

For low light fluorescence applications, offer 2/3" Sony CCD with pertier cooling USB2.0 camera. It has a very high dynamic range, excellent sensitivity and a 12-bit digital output. Features include 3step speed control, auto white balance, full exposure control, programmable gain, sub-windowing and reagion of interest. MC50 is the best solution for extreamely low light and long exposure conditions.

# **Application Software**

All of MC&MDseries camera have a wide-range compatibility with third-party software. You can connect any kinds of imaging software which using WDM driver. Nahwoo Trading offer enhanced software, professional imaging software iWorks Series.

iWorks Capture: Free software for capturing & Managing image.
iWorks Lite: Basic Measurement, Multi-focus, Image Tilling or more
iWorks FL: Flouoscence Merging with pre-selected dye list or custom option, Auto-Counting Cell object (Package Version)

iWorks Bio L/F: Customize software for customer's needs.
iWorks Material: Advanced Measurment, Grain Measurement, Graphite
Analysis in Nodular Cast Iron, Non-metallic Inclusion Rating or more.

MD series MC series

Nahwoo Trading's new
Live Digital Camera Series
are designed to be a costeffective versatile solution
for documentation and
achieving of clinical, life &
material science images
where higher resolution
is routinely required

### **MDseries**

Outstanding performance of a small and compact digital camera for microscopy with high resolution and exceptional fast live images.

MD10: 1280x1024 (10bit) MD20: 1600x1200 (10bit) MD30: 2048x1563 (10bit) MD50: 2592x1944 (12bit) MD90: 3488x2616 (12bit)

#### **MCseries**

Digital CCD color camera, offer excellent sensitivity and high resolution. MC series are ideal for bright-field and fluorescent imging systems where higher resolution archiving and publication. Delivers outstanding image quality for a wide variety of science application.

MC15: 1360x1024 (12bit) MC20: 1360x1024 (12bit) MC30: 2048x1536 (12bit) MC50: 2592x1944 (12bit)



Technical Support: iworks@nahwoo.com www.nahwoo.com

## MD Series: High-Speed USB2.0 CMOS Camera Series

	MD30	MD50	MD90
Sensor	1/2" Color CMOS	1/2.5" Color CMOS	1/2.3" Color CMOS
Resolution	3.0 Mega, 2048x1536	5.0 Mega, 2592x1944	9.0 Mega, 3488x2616
Pixel Size	3.2µm x 3.2µm	2.2µm x 2.2µm	1.75μm x 1.75μm
Frame Rate	12 fps, Max 30 fps	5 fps, Max 30 fps	3 fps, Max 30 fps
Shutter	Electronic Shutter	Electronic Shutter	Electronic Shutter
S/N ratio	43 dB	43 dB	40.5 dB
Scan Mode	Progressive Scanning	Progressive Scanning	Progressive Scanning
Sensitivity	1.0 V/ lux-sec (550nm)	0.53 V/ lux-sec (550nm)	0.44 V/ lux-sec (550nm)
White balance	Manual / Auto	Manual / Auto	Manual / Auto

<sup>\*</sup> MD10: 1/2" format Color CMOS 1.3Mega Pixel, 15fps, USB2.0

## MC Series: High-Speed USB2.0 CCD Camera Series

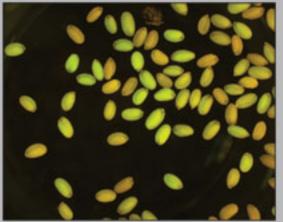
	MC20	MC30	MC50
Sensor	2/3" Sony EXview CCD	1/2" Sony ICX252 CCD	2/3" Sony ICX282 CCD
Resolution	1360 x1024, 12-bit	3.1 Mega, 2048x1536	5.0 Mega, 2560x1940
Pixel Size	6.45µm x 6.45µm	3.45µm x 3.45µm	2.2µm x 2.2µm
Frame Rate	15 fps, Max 60 fps	5 fps, Max 30 fps	3 fps, Max 40 fps
Shutter	Electronic Shutter (Continuous Variable Speed)	Electronic Shutter	Electronic Shutter
S/N ratio	72 dB	72 dB	72 dB
Scan Mode	Progressive Scanning	Progressive Scanning	Progressive Scanning
Operating Temp.	-10°C ~ 75°C	-10°C ~ 60°C	-10°C ~ 60°C
Binning	2x2, 4x4	2x2, 3x3 or 4x4,color	2x2, 3x3 or 4x4,color
Exporsure Time	1/44000s - 115s	0.1 ms - 200 ms	1.6 ms - 17.9 min

<sup>\*</sup> MC50: Pertier Cooling Type, USB2.0 Power









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<sup>\*</sup> MD20: 1/2" format Color CMOS 2.0Mega Pixel, 10fps, USB2.0

<sup>\*</sup> MC15: 1/2" format Color CCD 1.5Mega Pixel, 7.5fps, USB2.0