

CCD and CMOS camera's product catalogue



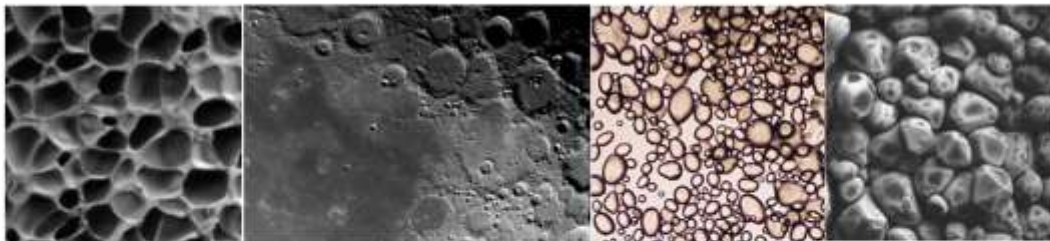
20 April 2011

Issue Date: 20 April 2011

Cooled CCD Cameras



No	Camera Name	Resolution	Chip
1	MDC-CCD -14MECIL	1.4 mega pixel	1/2 inch (mono)
2	MDC-CCD -14MECILC	1.4 mega pixel	1/2 inch (RGB)
3	MDC-CCD -14MECIH	1.4 mega pixel	2/3 inch (mono)
4	MDC-CCD -14MECIHC	1.4 mega pixel	2/3 inch (RGB)
5	MDC-CCD -61MECI	6.1 mega pixel	1.8 inch (RGB)
6	MDC-CCD -14MII-ECIH	1.4 mega pixel	2/3 inch (mono)
7	MDC-CCD -50MECI	5.0 mega pixel	2/3 inch (RGB)



14MECIL

overview:

2/3" monochrome Scientific-grade CCD chip

Progress scan CCD Sony ICX285AL

1.4Mega pixels resolution (1360X1024)

Peltier cooled to -30°C below ambient

Angle light control function,obtaining a long fluorescence image

CNC aluminum alloy mental case,no dew

The two stages peltier cooled ccd can cooled to -45°C below ambient, thus give you the perfect black and white image with details.it is high dynamic and high sensitive certainly.

1.4Mega pixels monochrome peltier cooled CCD camera	
CCD manufacturer	Sony
CCD chip model	ICX285AL
CCD Scan mode	Progress
CCD size	2/3 inch
Pixels	6.45micron x 6.45micron
G sensitive	1200mV
Resolution	1360Hx1024V
Filter	Monochrome
Lens interface	Standard C-mount
Maximum fps	7.5 fps (1360 x 1024) 15 fps (1360 x 1024) high-speed mode
Low-speed readout	Ok
A/D conversion	12 bit
Peltier cooled	-30°C below ambient
Fan	30x30/5000rpm
Power supply	5V exterior power supply
Exposure control	Automatic, manual
Exposure time	1ms-60minute
Angle light control	NO
White balance	Automatic, manual
Parameter	Image size, bright, gain exposure
Data interface	USB2.0/480Mb/s
USB cable	2.5 meter
USB power supply	USB2.0
Dimensions	100mmx81mmx48mm (HXBXT)
Weight	480g
Operation temperature	0-60°C
Operational humidity	45%-85%
Storage temperature	-20-70°C

Each camera includes:

MDC-CCD -1.4LICE digital camera
(standard C-mount, 2.5 meter USB cable, peltier cooled cable)

Peltier cooled power supply

Driver, Software CD

Manual

Certification

Storage box

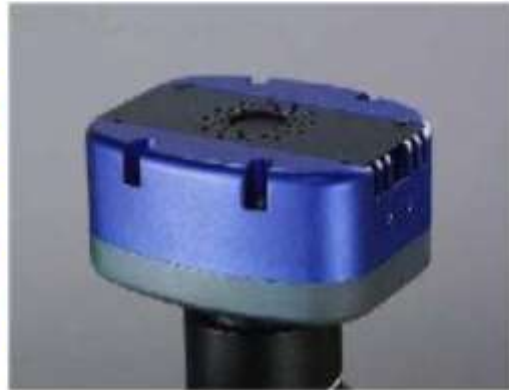
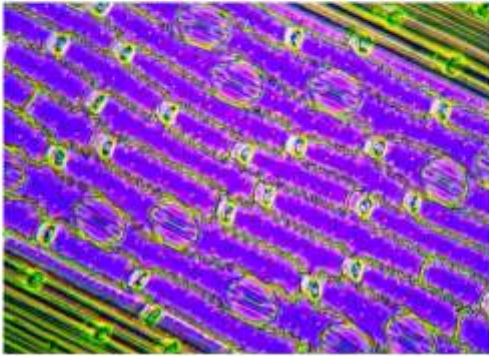
Cooled CCD camera								
Model	14MECIL	14MECILC	33MECI	50MECI	61MECI	14MECIH	14MECIHC	14MII-ECIH
CCD Size	1/2 inch	1/2 inch	1/1.8inch	2/3inch	1.8inch	2/3inch	2/3inch	2/3inch
Sensor format	Progressive	Progressive	Interline	Interline	Interline	Progressive	Progressive	Progressive
Sensor model	Sony ICX205AL	Sony ICX205AK	Sony ICX412AQ	Sony ICX282AQ	Sony ICX413AQ	Sony ICX285AI	Sony ICX285AQ	Sony ICX285AI
Filter	mono	color	color	color	color	mono	color	mono
Pixel Size	4.65µm *4.65µm		3.46µm *3.46µm	3.4µm *3.4µm	7.8µm *7.8µm	6.45µm *6.45µm	6.45µm *6.45µm	6.45µm *6.45µm
G Sensitivity	450mV	400mV	455mV	280mV	1000mV	1300mV	1240mV	1300mV
Resolution	1360H*1024V	1360H*1024V	2048H*1536V	2580H*1944V	3032H*2016V	1360H*1024V	1360H*1024V	1360H*1024V
Filter	R, G, B	R, G, B	R, G, B	R, G, B	R, G, B	R, G, B	R, G, B	R, G, B
Adapter	C-mount/Power transformer	C-mount/Power transformer	C-mount/Power transformer	C-mount/Power transformer	T-mount/Power transformer	C-mount/Power transformer	C-mount/Power transformer	C-mount/Power transformer USB 2.5m
	USB 2.5m	USB 2.5m	USB 2.5m	USB 2.5m	USB 2.5m	USB 2.5m	USB 2.5m	
Max frame rate	12.5fps(1360*1024) 15fps(680*520)	12.5fps(1360*1024) 15fps(680*520)	5fps(2048*101536) 30fps(680*520)	3fps(2580*1944) 10fps(1280*932)	2.9fps(3032*2016) 10fps(720*400)	12.5fps(1360*1024) 15fps(680*520)	12.5fps(1360*1024) 15fps(680*520)	12.5fps(1360*1024) 15fps(680*520)
A/D	12bit	12bit	12bit	12bit	12bit	12bit	12bit	12bit
Cool	-30°C below ambient	-30°C below ambient	-30°C below ambient	-30°C below ambient	-30°C below ambient	-30°C below ambient	-30°C below ambient	-45°C below ambient

Fan	30*30/5000rpm	30*30/5000rpm	30*30/5000rpm	30*30/5000rpm	30*30/5000rpm	30*30/5000rpm	30*30/5000rpm	70*70/5000rpm
Power	3.5V	3.5V	3.5V	3.5V	3.5V	3.5V	3.5V	12V
Exposure Control	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic
Exposure time	1msel-60min	1msel-60min	1msel-60min	1msel-60min	1msel-60min	1msel-60min	1msel-60min	1msel-60min
White balance	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic
USB power supply	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0
High/low speed readout	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temperature	0-60℃	0-60℃	0-60℃	0-60℃	0-60℃	0-60℃	0-60℃	0-60℃
Compliance	CE	CE	CE	CE	CE	CE	CE	CE

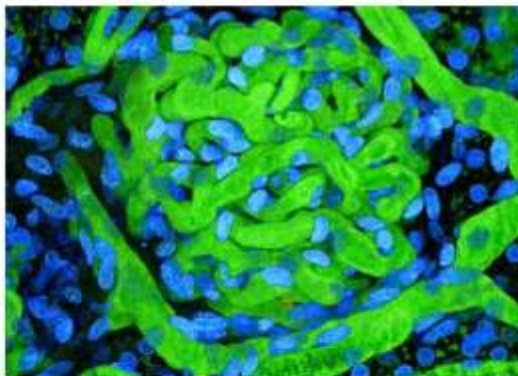
Application software: Smart-eye™

Operation: Windows 2000 / Me / XP(SP2/SP3) / 2003 / Vista / 2008 32Bit system/Window 7

Non – cooled CCD Cameras



Nº	Camera Name	Resolution	Chip
1	MDC-CCD - NC14ML	1.4 mega pixel	1/2 inch (mono)
2	MDC-CCD - NC14MLC	1.4 mega pixel	1/2 inch (RGB)
3	MDC-CCD - NC14MH	1.4 mega pixel	2/3 inch (mono)
4	MDC-CCD - NC14MHC	1.4 mega pixel	2/3 inch (RGB)
5	MDC-CCD - NC50M	5.0 mega pixel	2/3 inch (RGB)
6	MDC-CCD - NC61M	6.1 mega pixel	1.8 inch (RGB)
7	MDC-CCD - NC81M	8.1 mega pixel	1/1.8 inch (RGB)



Model	NC14ML	NC14MLC	NC33MEC	NC50M	NC61M	NCM14MH	NC14MHC	NC81M
CCD Size	1/2 inch	1/2 inch	1/1.8inch	2/3inch	1.8inch	2/3inch	2/3inch	1/1.8inch
Sensor format	Progress	Progress	Interline	Interline	Interline	Progress	Progress	Progress
Sensor type	Sony ICX205AL	Sony ICX205AK	Sony ICX412AQ	Sony ICX282AQ	Sony ICX413AQ	Sony ICX285AI	Sony ICX285AQ	Sony ICX476AQ
Filter	mono	color	color	color	color	mono	color	mono
Pixel Size	4.65µm *4.65µm	4.65µm *4.65µm	3.46µm *3.46µm	3.4µm *3.4µm	7.8µm *7.8µm	6.45µm *6.45µm	6.45µm *6.45µm	2.2µm *2.2µm
G Sensitivity	450mV	400mV	455mV	280mV	1000mV	1300mV	1240mV	170mV
Resolution	1360H*1024V	1360H*1024V	2048H*1536V	2580H*1944V	3032H*2016V	1360H*1024V	1360H*1024V	3280H*2460V
Filter	R, G, B	R, G, B	R, G, B	R, G, B	R, G, B	R, G, B	R, G, B	R, G, B
Adapter	C-mount	C-mount	C-mount	C-mount	T-mount	C-mount	C-mount	C-mount
Max frame rate	12.5fps(1360*1024) 15fps(680*520)	12.5fps(1360*1024) 15fps(680*520)	5fps(2048*1536) 30fps(680*520)	3fps(2580*1944) 10fps(1280*932)	2.9fps(3032*2016) 10fps(720*400)	12.5fps(1360*1024) 15fps(680*520)	12.5fps(1360*1024) 15fps(680*520)	2fps(3280*2460) 15fps(640*480)
A/D	12bit	12bit	12bit	12bit	12bit	12bit	12bit	12bit
Adapter	C-mount USB 2.5m	C-mount USB 2.5m	C-mount USB 2.5m	C-mount USB 2.5m	T-mount USB 2.5m	C-mount USB 2.5m	C-mount USB 2.5m	C-mount/ USB 2.5m
Exposure Control	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic
Exposure time	1msel-60min	1msel-60min	1msel-60min	1msel-60min	1msel-60min	1msel-60min	1msel-60min	1msel-60min

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White balance	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic	By manual or automatic
USB power supply	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0
High/low speed readout	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temperature	0-60°C	0-60°C	0-60°C	0-60°C	0-60°C	0-60°C	0-60°C	0-60°C
Compliance	CE	CE	CE	CE	CE	CE	CE	CE
Application software: Smart-eye™								
Operation: Windows 2000 / Me / XP(SP2/SP3) / 2003 / Vista / 2008 32Bit system/ Window 7								

CMOS Cameras

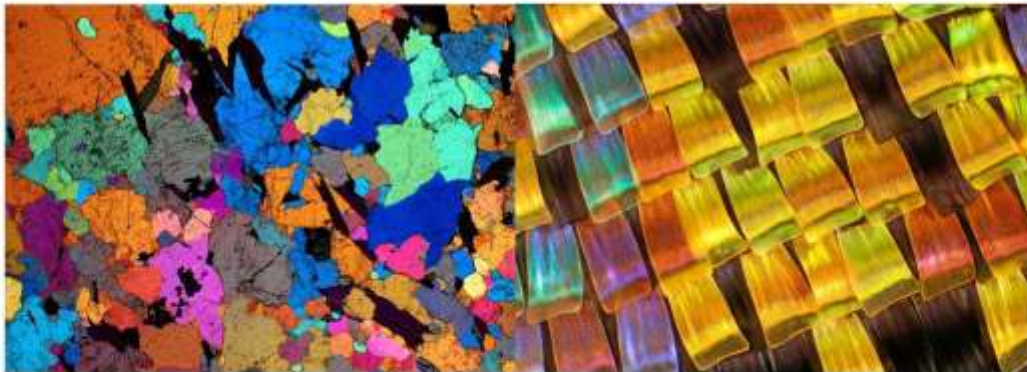


No	Camera Name	Resolution	Chip
1	MDC-CMOS-MC131	1.3 mega pixel	1/3 inch (RGB)
2	MDC-CMOS-MC30C	3.0 mega pixel	1/2 inch (RGB)
3	MDC-CMOS-MC50C	5.0 mega pixel	1/2,5 inch (RGB)
4	MDC-CMOS-MC00N	9.0 mega pixel	1/2,3 inch (RGB)

Model	MC131	MC30C	MC50C	MC90C	MC100N
Sensor	Micron	Micron	Micron	Micron	Micron
Sensor type	MT9M111	MT9T001	MT9P031	MT9N001	MT9J001
Sensor Size	1/3"	1/2"	1/2.5"	1/2.3"	1/2.3"
Pixel Size	3.6 μ m \times 3.6 μ m	3.2 μ m \times 3.2 μ m	2.2 μ m \times 2.2 μ m	1.75 μ m \times 1.75 μ m	1.67 μ m \times 1.67 μ m
Optical port	C mount	C mount	C mount	C mount	C mount
Exposure time	1ms-0.3s	1ms-0.3s	1ms-0.3s	1ms-0.3s	1ms-0.3s
S/N ratio	44dB	43dB	40.5dB	40.5dB	40.5dB
RGB	8bit	8bit	8bit	8bit	8bit
Sensitivity (v/lux-sec @550nm)	1.0V/Luxs	>1.0V/Luxs	0.53V/Luxs	0.44V/Luxs	0.44V/Luxs
Max Resolution (Hardware)	1280*1024	2048*1536	2592*1944	3488*2616	3856*2764
Full Res. Frame Rate (Depend on the PC)	16fps@1280*1024	10fps@2048*1536	6fps@2592*1944	3fps@3488*2616	2.5fps@3856*2764
High/low speed Preview	Yes	YES	YES	YES	YES
Video Mode	1280*1024, 640*480	2048*1536 1024*768	2592*1944 280*960	3488*2616 1600*1200	3488*2616 1600*1200

	320*240	640*480 512*384	1024*768 640*480	1280*960 800*600 640*480	1280*1024 640*480
Dynamic Range	>71dB	>61dB	>60dB	>63dB	>66.5dB
Wave Length(nm)	400-650nm (IR-Cut added)				
Exposure	ERS (Electronic Rolling Shutter)				
White Balance	Automatic / Advanced Manual				
Sensor format	progressive	progressive	progressive	progressive	progressive
Auto-exposure	Automatic / Advanced Manual				
Image Output	USB2.0, 480Mb/s				
Power Supply	USB2.0 5V 500mA				
Programmable Control	Image size, exposure time, brightness, gain, Gamma Correction, color, contrast, Saturation				
Working Temperature	-20°C ~ 50°C				
USB Cable	USB cable, length 1.8m				
Accessories Included	2 adaptors (Φ23.2 to Φ30, Φ23.2 to Φ30.50, one each) TS-M1 stage micrometer available for option at extra cost				
Software	Driver: support Direct Show and Twain				

	Application software: Smart-eye™
Operating System	Windows 2000 / Me / XP(SP2/SP3) / 2003 / Vista / 2008 32Bit system/ Window 7



microscope packages



No	Camera Name	Resolution	Chip
1	MDC- MC131 PACK	1.3 mega pixel	1/3 inch (RGB)
2	MDC- MC30C PACK	3.0 mega pixel	1/2 inch (RGB)
3	MDC- MC50C PACK	5.0 mega pixel	1/2.5 inch (RGB)
4	MDC- MC100N PACK	9.0 mega pixel	1/2.3 inch (RGB)

Industrial Cameras



No	Camera Name	Resolution	Chip
1	MDC-MVGAMCAM	2.0 mega pixel	1/3 inch (RGB)
2	MDC-MBW032	0.35 mega pixel	1/3 inch (mono)
3	MDC-MC032	0.35 mega pixel	1/3 inch (RGB)
4	MDC-MBWL50	5.0 mega pixel	1/2.5 inch (mono)
5	MDC-MCHS13	1.3 mega pixel	1/2 inch (RGB)
6	MDC-MBWS13	1.3 mega pixel	1/2 inch (mono)

Accessories

No	Name
1	ACC-0.5X nosepiece with 30mm and 30.5 mm ring
2	ACC- DSLR-T
3	ACC- DSLR-EF
4	ACC- DSLR-F
5	ACC-H calibration glass
6	ACC-L calibration glass
7	ACC-S calibration glass
8	ACC-CT
9	ACC-adapter OL
10	ACC-adapter Ze
11	ACC-adapter Le
12	ACC-adapter NI

0.5X Nosepiece with 30mm and 30.5mm ring



ACC-H calibration glass	<p>Diameter: 1.5mm Ø0mm Ø.15mm Ø.Ø7mm</p> <p>1 DIV=0.01mm</p>
ACC-L calibration glass	<p>1 DIV=0.01mm</p>
ACC-S calibration glass	<p>1 DIV=0.1mm</p>



LEICA Imaging Adapter



ZEISS Imaging Adapter

Special Cameras



Digital C-MOS, CS-mount Camera*

Package contents:

- USB2.0 Camera (without lens)
- Manual
- Software with measurement functions

System requirement:

CPU Pentium/Celeron/AMD 1.0G or above / Windows XP SP2/Vista or Mac OS / Available USB 2.0 / VGA Card: 16bit or above / CD-ROM drive.

Features:

Operation system: Windows XP SP2/Vista/7

PC interface: USB 2.0

Image Sensor: 1/4" CMOS Color sensor

Video Capture Resolution 1280x1024, 640x480, 320x240

Color: YUV or 24bit RGB

White Balance: Auto.

Exposure: Auto

Power supply: USB5.0V DC Max 0.75w

Size: 40mm(L) x 40mm(W) x 54mm(H)

* Can be use with both C-mount lenses and CS mount lens

Smart-eye™ Digital CMOS Camera

Vision in technology

MEASUREMENTS WITH CALIBRATION
WITH 1/4" CMOS
DIGITAL VIDEO CAMERA

Expanding Measurement
Expanding Vision Field

Digital CMOS Camera

Features:

- USB2.0 interface
- 1/4" CMOS Color sensor
- Video Capture Resolution 1280x1024, 640x480, 320x240
- Color: YUV or 24bit RGB
- White Balance: Auto.
- Exposure: Auto
- Power supply: USB5.0V DC Max 0.75w
- Size: 40mm(L) x 40mm(W) x 54mm(H)

Model: DCCC SN: _____

Digital CMOS Video Camera

Features:

- Operation system: Windows XP SP2/Vista/7
- PC interface: USB 2.0
- Image Sensor: 1/4" CMOS Color sensor
- Video Capture Resolution 1280x1024, 640x480, 320x240
- Color: YUV or 24bit RGB
- White Balance: Auto.
- Exposure: Auto
- Power supply: USB5.0V DC Max 0.75w
- Size: 40mm(L) x 40mm(W) x 54mm(H)

Application scope:

- Industrial inspection
- Quality control
- Document scanning
- Defect detection
- Color calibration
- Color management
- Color reproduction
- Color management
- Color calibration
- Color management

Model: DCCC SN: _____

For all camera's we provide our Smart-eye™ advanced control and image analysis software with an abundance of very convenient and useful tools

Digital Microscopes and Powerful Software

High quality microscopes:

Magnification: 1x - 200x
 Optical Format: 1/3" CMOS Sensor(4:3)
 Field of View:
 Min.: 2.35 mm x 1.75 mm @ 17 mm working distance(200X)
 Max.: 100mm x 76 mm@100 mm working distance(5X)
 Image Sensor: 2.0 Mega pixels
 Video Capture Resolution 1600x1200,1280x960, 640x480
 Color: 24bit RGB or YUV or MJPG
 Lens: High Precision Microscope Lens
 Focus Range: Manual from 8mm to 300mm
 White Balance: Auto
 Exposure time: Auto
 Light Source: Integrated adjustable LED Illumin
 Length: 122 mm
 Diameter: 36 mm
 Output: USB streaming video
 Power supply: 5V DC from USB port

Powerful software:

Microscope control
 Still images and video recording
 Ultimate set of measurement tools
 Image adjustments
 Particles/defects calculations
 Charts/Plots
 Reports

Different UVC devices control
 Image manipulations
 Particles size and shape analysis
 Unique application oriented customizations
 Windows™ based operating system

USB hand held microscopes and cameras powered by

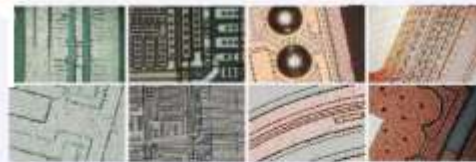
SMART-EYE™ software

22 morphometric parameters
 Calculation for every particle available
 Powerful charts, histograms and reports

Resolution up to 10 Mpix

Vision in Technology

User friendly interface



Powerful image processing, enhancement, and analysis software with extensive measurement and customization features included.



Comprehensive measurements tools

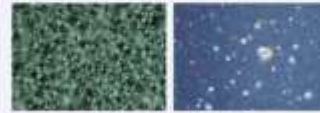
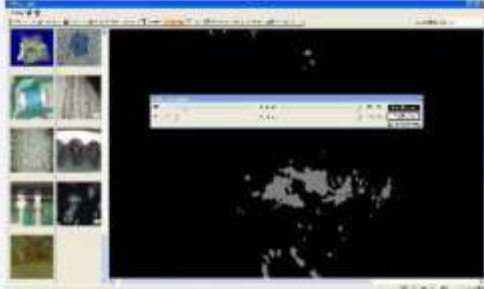


- Line Length
- Circle Length
- Rectangle Area
- Circle Area
- Ellipse Area
- Angle
- Distance between two parallel lines
- Circle Radius
- Circle Diameter

Amongst them: line length, line set length, rectangle area, circle area, ellipse area, angle, distance between two parallel lines, circle radius and diameter, distance from point to line, etc.



Size and shape measurements



particles identification



color packaging inspection

Handy results representation



More than 20 morphometric parameters. Amongst them: location, width, height, perimeter, area, roundness, elongation, gravity center, inner and outer circle radiuses, compactness, roughness and much more...

complex objects identification by morphometry pattern analysis



Great charts and plots



Allows classification of the objects and definitions of the classes. Any objects classifications.



Rich report engine



Allows export of the results to most standart formats. Pictures and calculations included in reports.

