



D A T A S H E E T

M
E
T
R
O
L
O
G
Y
S
C
O
P
E
S
M
I
C
R
O
M
A
X
S
E
R
I
E
S

MicroMAX:1300Y
 Princeton Instruments
 1300 x 1030 imaging array
 6.7 x 6.7- μ m pixels

The MicroMAX:1300Y is a high-resolution digital camera system designed for low-light scientific and industrial applications. This cooled CCD camera system provides 12-bit digitization. The fine pitch of the pixels, 6.7 x 6.7 microns, is ideally matched to the resolution of optical microscopes. Megapixel resolution and small pixels allow imaging of very fine detail, yet the pixels can be easily binned to improve sensitivity. Interline CCD technology provides high quantum efficiency in the blue/green.

F E A T U R E S B E N E F I T S

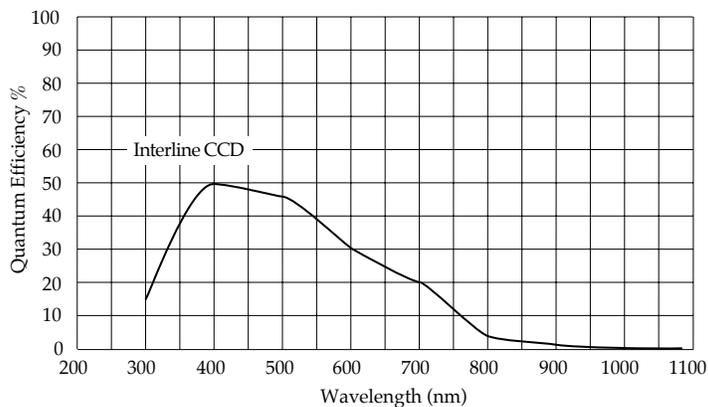
1300 x 1030 imaging array 6.7 x 6.7- μ m pixels	Resolves fine detail Ideally matched to optical microscope
Flexible binning and readout	Increases light sensitivity while increasing the frame rate
12-bit digitization	Quantifies both bright and dim signals in the same image
Thermoelectric cooling	Long integration times for higher sensitivity
C-mount or F-mount	Selectable for the best optical path Easily attaches to standard lenses or optical equipment
Compact camera head	Easily fits your instrument
PCI interface	Works with PC or Macintosh
Interline, progressive-scan CCD	Electronic shuttering eliminates camera vibration and facilitates fast triggering
Video output	Compatible with standard video equipment





D A T A S H E E T

M
E
T
S
Y
S
X
A
M
O
R
C
I
M



Binning	Region			
	1300 X 1030	400 X 400	200 X 200	100 X 100
1 X 1	0.7	2.6	5.4	9
2 X 2	1.9	5.4	9	14
3 X 3	3.2	7.5	12	17
4 X 4	4.3	9	14	19

(Frames per second)

S P E C I F I C A T I O N S

CCD image sensor	Sony ICX061; progressive-scan CCD
CCD format	1300 x 1030 imaging pixels; 6.7 x 6.7- μ m pixels; 8.71 x 6.90-mm imaging area (optically centered)
Grade	Grade 0: 0 point defects, 0 cluster defects, 0 column defects (based on CCD manufacturer's cosmetic blemish definitions)
Linear full well	18,000 e ⁻ ; 40,000 e ⁻ with 2x2 binning
Read noise	7 e ⁻ rms @ 1 MHz
Nonlinearity	<1%
Readout bits/speed	12 bits @ 1 MHz
Frame readout	1.43 seconds for full frame
Dark current	0.05 e ⁻ /p/s @ -10°C
Operating environment	0 to 30°C ambient, 0 to 50% relative humidity noncondensing

Note: Specifications are typical and subject to change.

