

## PRODUCT SUMMARY

### KODAK KAI-0373 IMAGE SENSOR

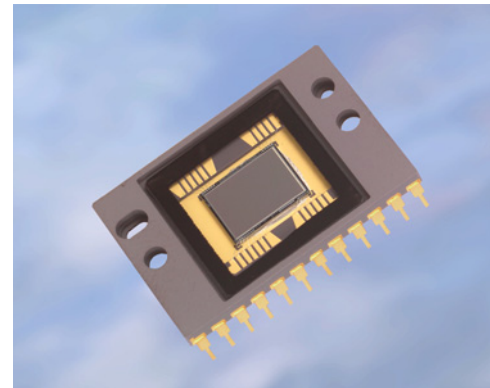
#### 768 (H) X 484 (V) PROGRESSIVE SCAN INTERLINE CCD IMAGE SENSOR

### DESCRIPTION

The KODAK KAI-0373 Image Sensor is a progressive scan, 2/3" interline transfer image sensor. It has a vertical overflow drain for blooming control up to 300X saturation.

Other features include low dark current, high output sensitivity, negligible lag, and low smear. The progressive scan (non-interlaced) architecture gives full line resolution in each capture. This allows for still/video imaging of fast moving objects without breakup of the image because of successive field capture.

Devices have microlenticular arrays for sensitivity improvement. Color imagers are available.



### FEATURES

- Front Illuminated Interline Architecture
- 768 (H) x 484 (V) Photosensitive Pixels
- 11.6mm(H) x 13.6mm(V) Pixel Size
- 8.9 mm(H) x 6.6 mm(V) Photosensitive Area
- Progressive Scan (Noninterlaced)
- Electronic Shutter
- Integral RGB Color Filter Array (optional)
- On-Chip Dark Reference Pixels
- Low Dark Current
- High Output Sensitivity
- Antiblooming Protection
- Negligible Lag
- 2/3" Format Compatible
- Low Smear (0.01% with microlens)

Parameter	Typical Value
Architecture	Interline CCD, Non-Interlaced
Photosensitive Pixels	768 (H) x 484 (V)
Pixel Size	11.6 $\mu\text{m}$ (H) x 13.6 $\mu\text{m}$ (V)
Photosensitive Area	8.9 mm (H) x 6.6 mm (V)
Chip Size	9.9 mm (H) x 7.7 mm (V)
Optical Fill-Factor	65%
Saturation Signal	55,000 electrons
Output Sensitivity	9 $\mu\text{V}$ /electron
Dark Noise	55 electrons rms
Dark Current (Typical)	<0.5 nA/cm <sup>2</sup>
Dynamic Range	>60 dB
Quantum Efficiency (wavelength = 460, 540, 630 nm)	37%, 34%, 29%
Blooming Suppression	>300 X
Maximum Data Rate	14.3 MHz
Image Lag	Negligible

Parameters above are specified at T = 40° C unless otherwise noted

### APPLICATIONS

- Industrial Imaging

## ORDERING INFORMATION

Catalog Number	Product Name	Description
4H0407	KAI- 0373-AAA-CP-BA	Monochrome, No Microlens, CERDIP Package (sidebrazed), Taped Clear Cover Glass, no coatings, Standard Grade
4H0409	KAI- 0373-ABA-CB-AE	Monochrome, Telecentric Microlens, CERDIP Package (sidebrazed), Clear Cover Glass (no coatings), Engineering Sample
4H0408	KAI- 0373-ABA-CB-BA	Monochrome, Telecentric Microlens, CERDIP Package (sidebrazed), Clear Cover Glass (no coatings), Standard Grade
4H0410	KAI- 0373-ABA-CP-BA	Monochrome, Telecentric Microlens, CERDIP Package (sidebrazed), Taped Clear Cover Glass, no coatings, Standard Grade
4H0412	KAI- 0373-EBA-CB-AE	Color (3G stagger), Telecentric Microlens, CERDIP Package (sidebrazed), Clear Cover Glass (no coatings), Engineering Sample
4H0411	KAI- 0373-EBA-CB-BA	Color (3G stagger), Telecentric Microlens, CERDIP Package (sidebrazed), Clear Cover Glass (no coatings), Standard Grade

Please see ISS Application Note "Product Naming Convention" (MTD/PS-0892) for a full description of naming convention used for KODAK image sensors.

Address all inquiries and purchase orders to:

Image Sensor Solutions  
Eastman Kodak Company  
Rochester, New York 14650-2010

Phone: (585) 722-4385  
Fax: (585) 477-4947  
E-mail: [imagers@kodak.com](mailto:imagers@kodak.com)