

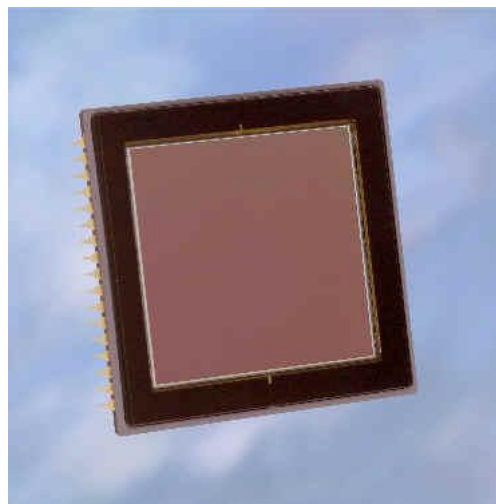
PRODUCT SUMMARY

KODAK KAF-09000 IMAGE SENSOR

3056 (H) X 3056 (V) FULL FRAME CCD IMAGE SENSOR

DESCRIPTION

Combining high resolution with outstanding sensitivity, the KODAK KAF-09000 image sensor has been specifically designed to meet the needs of next-generation low cost digital radiography and scientific imaging systems. The high sensitivity available from 12-micron square pixels combine with a low noise architecture to allow system designers to improve overall image quality, or to relax system tolerances to achieve lower cost. The excellent uniformity of the KAF-09000 image sensor improves overall image integrity by simplifying image corrections, while integrated anti-blooming protection prevents image bleed from over-exposure in bright areas of the image. To simplify device integration, the KAF-09000 image sensor uses the same pin-out and package as the KAF-16801 image sensor.



FEATURES

- Large Pixel Size
- Large Image Area
- High Quantum Efficiency
- Low Noise Architecture
- Broad Dynamic Range

APPLICATIONS

- Digital Radiography
- Astronomy
- Life Sciences

Parameter	Typical Value
Architecture	Full Frame CCD [Square Pixels]
Total Number of Pixels	3103 (H) x 3086 (V) = 9.6 Mp
Number of Effective Pixels	3085 (H) x 3085 (V) = 9.5 Mp
Number of Active Pixels	3056 (H) x 3056 (V) = 9.3 Mp
Pixel Size	12 μm (H) x 12 μm (V)
Active Image Size	3056(H) x 3056 (V) = 9.3 Mp
Aspect Ratio	Square
Horizontal Outputs	1
Saturation Signal	110 K e ⁻
Output Sensitivity	24 $\mu\text{V}/\text{e}^-$
Quantum Efficiency (550nm)	64%
Responsivity (550 nm)	2595 ke/ $\mu\text{J}/\text{cm}^2$ 62.3 V/ $\mu\text{J}/\text{cm}^2$
Read Noise (f=3 MHz)	7 e ⁻
Dark Signal (T=25°C)	5 e/pix/sec
Dark Current Doubling Temperature	7° C
Linear Dynamic Range (f=4 MHz)	84 dB
Blooming Protection (4ms exposure time)	> 100X saturation exposure
Maximum Data Rate	10 MHz
Package	CERDIP, [sidebrazed pins, CuW]
Cover Glass	AR coated 2 sides Taped Clear

Parameters above are specified at T = 25 ° unless otherwise noted.

ORDERING INFORMATION

Catalog Number	Product Name	Description	Marking Code
4H2051	KAF-09000-ABA-DP-BA	Monochrome, Microlens, Cerdip Package, (sidebrazed, CuW), Taped clear coverglass, Standard grade	KAF-09000-ABA [Serial Number]
4H0885	KAF-09000-ABA-DP-AE	Monochrome, Microlens, Cerdip Package, (sidebrazed, CuW), Taped clear coverglass, Engineering sample	
4H2052	KAF-09000-ABA-DD-BA	Monochrome, Microlens, Cerdip Package, (sidebrazed, CuW), AR coated 2 sides, Standard Grade	
4H0887	KAF-09000-ABA-DD-AE	Monochrome, Microlens, Cerdip Package, (sidebrazed, CuW), AR coated 2 sides, Engineering sample	

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

For all reference documentation, please visit our Web Site at www.kodak.com/go/imagers.

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