

KAF-1400

MEGAPIXEL FULL FRAME CCD IMAGER

PRELIMINARY

Description

The KAF-1400 is a 1.4 million pixel full frame CCD image sensor. Full frame means that it must be strobe illuminated or used with a mechanical shutter. It has 20 dark columns at the beginning of each line and a dark line at both the top and bottom of the image area.

Specifications

<u>Parameter</u>	<u>Value</u>
Architecture	Full Frame
Pixel Count	1340 (H) X 1037 (V)
Pixel Size	6.8 μm X 6.8 μm
Imager Size	8.98 mm (H) X 7.04 mm (V)
Chip Size	10 mm (H) X 8 mm (V)
Optical Fill Factor	100%
Saturation Signal	45,000 electrons
Output Sensitivity	12 μV /electron
Dark Noise (1/10 sec)	25 electrons
Dark Current (25 °C, Accumulation Mode)	< 10 pA/cm ²
Dark Current Doubling Temperature	5-6 C ^o
Dynamic Range (Sat Sig/Dark Noise)	60 dB
Quantum Eff. (450,550,650 nm)	10%,35%,55%
Blooming Suppression	None
Maximum Data Rate	20 MHz
Transfer Efficiency (10 MHz, to -40 °C)	> 0.99997
Image Lag	Negligible



Microelectronics Technology Division • Eastman Kodak Company • Rochester NY 14650
Phone 716-477-7053 Fax 716-477-4947

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