

# illunis XMV-16000

## Product Brief

eXtreme Machine Vision

Advanced Digital Machine Vision Cameras



### Description:

The XMV-16000 is a 4,872(H) x 3,248(V) - 16M pixel digital camera used in industrial machine vision, military, and scientific market applications. Designed from the ground up with the latest technologies, this camera represents a new standard in digital imaging. The XMV-16000 offers additional features such as: 12 bit sampling and data paths, advanced triggering and CCD readout control, built in detectors that analyze the camera's performance, image processing to remove sensor defects, and on screen tools for analyzing line/columns and text overlay. The XMV-16000 provides extreme performance at a very affordable price.

### XMV-16000 Product Highlights:

Latest Generation Imagers  
 60,000,000 pixels per sec.  
 Industry's smallest size  
 12 bit sampling and data path  
 On screen text and line plots  
 Smear Reduction Circuit  
 Pixel / Column defect correction  
 12-12 bit Look up tables  
 Auto exposure and gain  
 Digital gain and offset for each tap  
 Analog gain and offset for each tap  
 Built in detectors measure performance  
 Exposure and Focus  
 Tap matching  
 Real time SNR  
 Raster parameters  
 Built In test  
 Industrial and Mil derated components  
 Camera control GUI  
 Visual Basic Version  
 Free Source code with camera  
 Easy setup and control

High-Speed Digital Output using  
 Camera Link Base Standard  
 GiGE Vision



### OEM Sales and Support

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| XMV-16000 Specifications |  |
|--------------------------|--|
| Sensor                   | Kodak KAI-16000  |
| Technology               | Interline Transfer CCD   |
| Max Sensor DNR           | 60dB = 10 ENOB   |
| Lens Mount               | F-mount  |
| Sensing Area             | 37.25 mm x 25.7 mm   |
| Pixel Size               | 7.4um x 7.4um  |
| Active Pixels            | 4,872 (h) x 3,248(v)   |
| Pixel Clock              | 30 Mhz / 20Mhz   |
| Frame Rates @ 30Mhz      | 3.0 dual, 1.5 single tap   |
| Output Sensitivity       | 31µV/e   |
| Tap Reorder              | Built In   |
| Partial Scan             | Any line to any line   |
| Binning                  | Independent H & V: 1-16x   |
| Exposure                 | Global Electronic Shutter  |
| Exposure Modes           | Triggered Program Exposure (TPE)<br>Triggered Manual Exposure (TME)<br>Triggered Double Exposure (TDE)<br>Triggered Overlap Exposure (TOE)<br>Free Run (FRM),<br>Free Run Synchronized (FRS) |
| Exposure Resolution      | Free Run: 1 Line Time,<br>Triggered: 4-1024 pixel clocks per step  |
| Sensor Taps              | 1 or 2 selectable  |
| Gain Control             | Digital .001 to 16X per tap,<br>Analog 2-40dB, 10 bit range,<br>Color versions have additional per color pre-gain control  |
| Offset Control           | Digital ± 4094 per tap,<br>Analog 0-255, 8 bit range in 12 bit sample,<br>Actively clamped per line  |
| Power                    | 12VDC @ 6W   |
| Dimensions               | 76 x 67 x 67mm with F-mount<br>35 x 67 x 67mm without lens mount   |
| Weight F-Mount w/o lens  | 470 grams 16.2oz   |
| Operating Temp           | 0 to 50 C, less than 90% RH<br>(Design tested -40 degrees C to<br>+70 degrees C)   |
| Options                  | CALL for special configurations including<br>conformal coatings and custom lens mounts   |



# Extreme Machine Vision

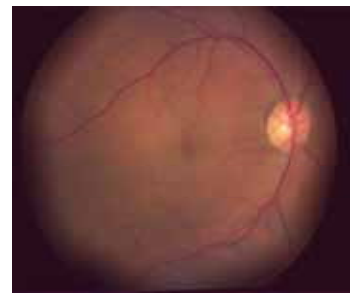
*Advanced Digital Machine Vision Cameras*

## XMV Applications

Applications for illunis cameras span from microscopic to high speed aerial imaging. Illunis cameras look for terrorists to tax cheats, finger fiducials to flat-panel defects, and all for the best price available. Here are a few applications;

- \* Aerial Imaging and Reconnaissance
- \* PCB, BGA and LCD Flat-Panel Inspection
- \* Ophthalmic
- \* Biometrics
- \* Metrology
- \* Traffic Management
- \* Interferometry
- \* Scientific imaging and microscopy
- \* Portrait Photography

**For more information** on any illunis product including detailed specifications and options please visit our web page at [www.illunis.com](http://www.illunis.com) or email [info@illunis.com](mailto:info@illunis.com) or call us at the number below. illunis specializes in applying our proven intellectual property to your custom requirements at realistic NRE fees - call and find your OEM solution today.



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