

illunis XMV-4021

Product Brief

eXtreme Machine Vision

Advanced Digital Machine Vision Cameras



Description:

The XMV-4021 is a 2,048(H) x 2,048 (V) - 4M 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-4021 offers additional features such as: full 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-4021 provides extreme performance at a very affordable price.

XMV-4021 Product Highlights:

Latest Generation Imagers
80,000,000 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



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XMV-4021 Specifications

Sensor	Kodak KAI-4021
Technology	Interline Transfer CCD
Max Sensor DNR	60dB = 10 ENOB
Lens Mount	C-mount
Sensing Area	15.2 mm x 15.2 mm
Pixel Size	7.4um x 7.4um
Active Pixels	2,048 (h) x 2,048 (v)
Pixel Clock	40 Mhz / 30Mhz
Frame Rates @ 40Mhz	15.76 dual, 8.46 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) Triggered Manual Exposure (TME) Triggered Double Exposure (TDE) Triggered Overlap Exposure (TOE) Free Run (FRM), Free Run Synchronized (FRS)
Exposure Resolution	Free Run: 1 Line Time, Triggered: 4-1024 pixel clocks per step
Sensor Taps	1 or 2 selectable
Gain Control	Digital .001 to 16X per tap, Analog 2-40dB, 10 bit range, Color versions have additional per color pre-gain control
Offset Control	Digital ± 4094 per tap, Analog 0-255, 8 bit range in 12 bit sample, Actively clamped per line
Power	12 VDC @ 4.7 W (2-tap 40Mhz)
Dimensions	37mm x 57mm x 57mm with C-Mount
Weight F-Mount w/o lens	240 grams, 6.4oz
Operating Temp	0 to 50 C, less than 90% RH (Design tested -40 degrees C to +70 degrees C)
Options	CALL for special configurations including conformal coatings and custom lens mounts



Extreme Machine Vision

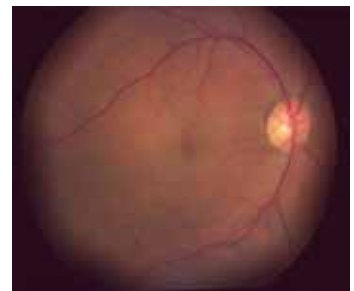
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XMV Applications

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 or email 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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