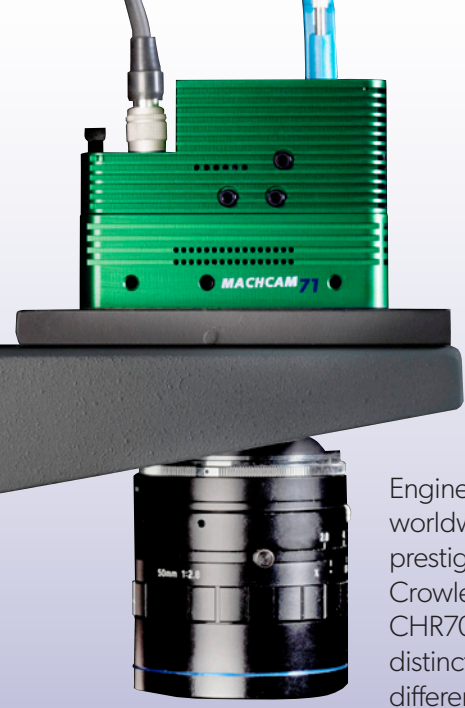


End-Users. Resellers. OEMs.

# MACHCAM71: You Have to Know the Difference to Make the Difference

## Crowley's 71MP Camera Series for Machine Vision and Cultural Heritage Applications

Engineer. Manufacturer. Image Expert. For nearly four decades, The Crowley Company has been a worldwide authority on digital and analog imaging capture as the manufacturers and distributors of such prestigious scanner brands as Mekel Technology and Wicks and Wilson. In an exciting development, Crowley has employed this extensive expertise into a design of the programmable features of the CHR70M sensor into the **MACHCAM 71MP** camera. The **MACHCAM 71** is now available for two distinct markets: **machine vision** and **cultural heritage**. Discover the details when you see the difference 71MP can make.



### MACHINE VISION

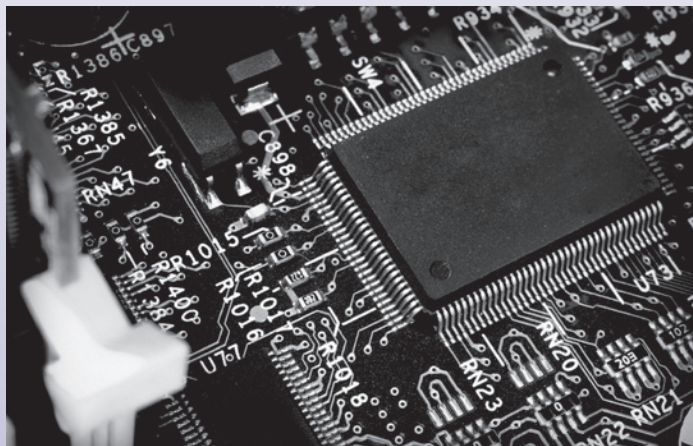
When it's the details that define pass or fail, the **MACHCAM 71MP** allows for clarity in a large field of view, reducing or even eliminating the need to stitch multiple images together to get the big picture.

#### Industry applications:

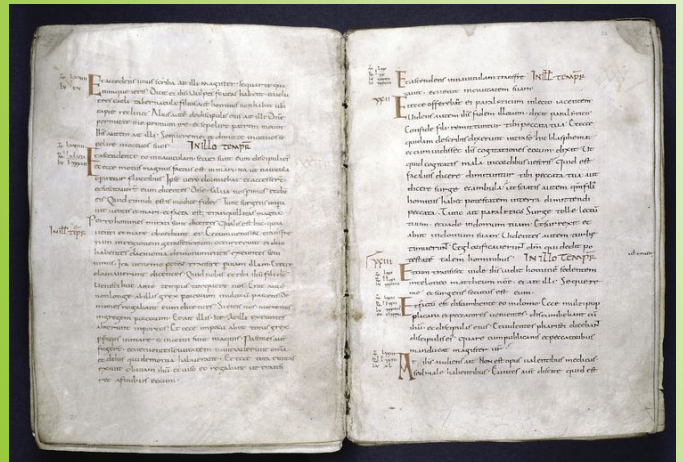
- LCD/PCB Inspection
- Aerial Imaging
- Packaging and Inspection
- Military/Law Enforcement
- Scientific Imaging
- More

#### Key features include:

- Small camera case for easy integration (economy of scale)
- USB 3.0 compatible
- Pleora software development kit (SDK) included
- Pairs with Cognex/VisionPro and other key industry software
- Internal trigger
- F-mount standard; other mounts available
- Pixel correction
- Available in monochrome or color
- Available with or without fan



### CULTURAL HERITAGE PRESERVATION



The preservation and digitization of a country's cultural heritage treasures ensure that an accurate accounting of history is available for all future generations. The **MACHCAM 71MP** high resolution camera can be easily integrated into a custom book or document scanner or used on its own for high-end graphic arts scanning.

#### Imaging Applications:

- Graphic Arts Imaging (photos, slides, glass plates, etc.)
- Art Imaging (for multi-dimension objects)
- Book and Document Imaging (bound, loose and rare print materials)

#### Key features include:

- Small camera case for an easy fit into scan systems or stands
- USB 3.0 compatible
- Software development kit for integration with imaging software
- Meets NARA, FADGI and Metamorfoze image guidelines\*
- Internal trigger
- F-mount standard
- Pixel correction
- Available in monochrome and color
- Options include: USB foot pedal trigger; custom mounts; color accuracy consultation and support

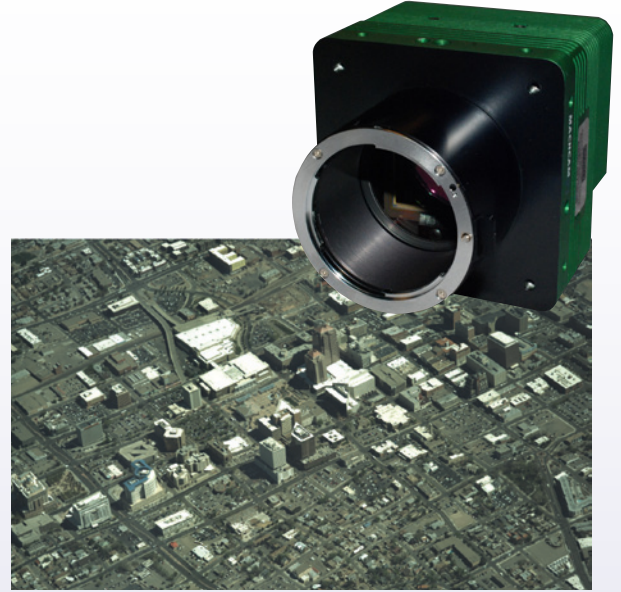
\*Camera alone; conditions vary with lighting and capture system and may require on-site consultation

# ABOUT THE MACHCAM71 MEGAPIXEL CAMERA IMAGE SENSOR

After exhaustive research, The Crowley Company chose the CHR70M — the world’s highest resolution CMOS image sensor currently available — for implementation into the MACHCAM 71C (RGB color) and MACHCAM 71M monochrome cameras. Produced by CMOSIS, these sensors provide an excellent base for Crowley’s high-end cultural heritage and machine vision cameras.

## SENSOR SPECIFICATIONS

Specification	Value
Pixel count	10000 x 7096 active pixels
Pixel Size	3.1 x 3.1 $\mu\text{m}^2$
Optical Format	35mm
Active image size	31x22mm
Shutter Type	Electronic rolling shutter with true CDS correction
Frame Rate	3 fps at full resolution
Sensitivity	0.88 V/lux.s
Conversion Gain	64 $\mu\text{V}/\text{e}^-$
Full Well Charge	13000 $\text{e}^-$
Dark Noise	7 $\text{e}^-$ (RMS)
Dynamic Range	63 dB
SNR Max	41.1 dB
Dark Current	3.2 $\text{e}^-/\text{s}$ (25 degC)
Fixed Pattern Noise	< 0.09% of full swing)
Chroma	Mono and RGB color
Operating Temperature Range	0 to +60 degC
RoHS compliance	Yes



Drone photo using the MACHCAM 71MP courtesy of Transparent Sky, LLC

## CAMERA SPECIFICATIONS

Housing size	3.25 x 3.25 x 2.5 in / 83 x 83 x 63.5 mm
USB 3.0 compatible	External frame grabber not required
Software development kit, DLL	Included
A/D Bits	12 bits
Voltage/Power	12V DC/~10 watts nominal
Weight	1.39 lbs./630 grams
F-mount standard	Custom mounts upon request



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240.215.0224 (U.S.) | [www.thecrowleycompany.com](http://www.thecrowleycompany.com)



The Crowley Company pursues a policy of continuous product improvement and reserves the right to change these specifications without notice.