

2020 Prelaunch

End-Users. Resellers. OEMs.

You Have to Know the Difference to Make the Difference

MACHCAM71v2

Crowley's Next Generation 71MP Camera for Machine Vision, Industrial and Forensic Applications



Engineer. Manufacturer. Imaging Expert. For four decades, The Crowley Company has been a worldwide authority on digital and analog image capture. In 2017, this extensive expertise was employed into a design of the programmable features of the CHR70M sensor to create the MACHCAM 71, a 71 megapixel camera created to view fine detail in a single image. The next generation MACHCAM 71v2 offers outstanding image detail, low noise and easy-to-use capture software.

Discover the details when you see the difference **71 megapixels** can make.

One Image. Every Detail.

When it's the details that define pass or fail, the **MACHCAM 71MPv2** 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.

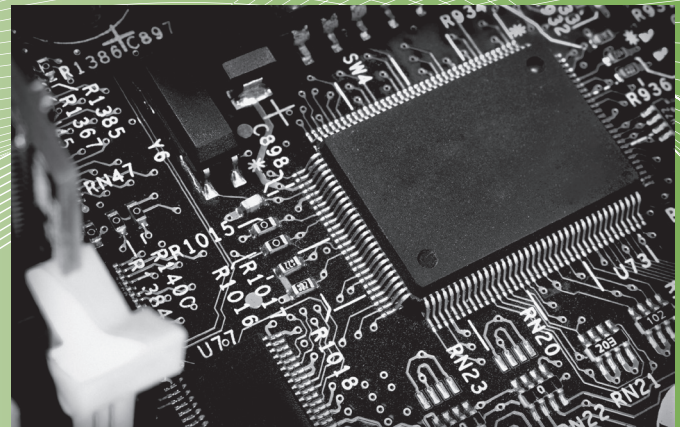
Industry applications:

- LCD/PCB Inspection
- Aerial Imaging
- Packaging and Inspection
- Military/Law Enforcement/Security
- Scientific Imaging
- Quality Control
- Document Examination
- More

Key features include:

- Small camera case for easy physical integration
- USB 3.0 compatible

- Software development kit (SDK)
- GenCam interface (with Camera Link option)
- External trigger
- Pixel correction
- Available in monochrome or color
- F-mount standard; other mounts available



Large field of view allows for review of the finest details without image stitching

ABOUT THE MACHCAM71v2 CAMERA IMAGE SENSOR

After exhaustive research, The Crowley Company chose the CHR71000 for implementation into the MACHCAM 71v2C (RGB color) and MACHCAM 71v2M monochrome cameras. Produced by CMOSIS, these sensors provide an excellent base for Crowley's high-end industrial, forensic and machine vision cameras.

SENSOR SPECIFICATIONS

Specification	Value
Pixel count	10000 x 7096 active pixels
Pixel Size	3.1 x 3.1 μm^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 e^-
Dark Noise	7 e^- (RMS)
Dynamic Range	63 dB
SNR Max	41.1 dB
Dark Current	3.2 e^-/s (25 degC)
Fixed Pattern Noise	< 0.09% of full swing)
Chroma	Mono and RGB color
Operating Temperature Range	0 to +60 degC



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



Detailed capture via the MACHCAM 71 custom-designed into ID Scientific's TrueImage M1000 document examination platform

CAMERA SPECIFICATIONS

Housing size	4.25 x 4.25 x 2 in./110 x 110 x 50 mm
Interface Options	<ul style="list-style-type: none">■ USB 3.0 compatible (external frame grabber not required)■ Camera Link
Software development kit, DLL	Included
A/D Bits	12 bits
Voltage/Power	12V DC/~10 watts nominal
Weight	1.34 lbs./608 grams
F-mount standard	Custom mount upon request
Compliance	RoHS; REACH

Contact your Crowley representative for product warranty information

CUSTOM SOLUTIONS: The Crowley Company offers custom solutions to MACHCAM 71 v2 integration, packaging and technical support. Ask your representative for more details or call (240) 215-0224 (US).

Rev 11/19