

KRON TECHNOLOGIES CHRONOS 1.4 HIGH-SPEED CAMERA



Chronos 1.4 Highlights:

High-Definition 1280x1024 (1.3MP)

38,565fps Max Frame Rate

2 μ s Exposures (1/500,000sec)

Stand-Alone Operation

High Light Sensitivity

Color 320-5120 ISO

Mono 740-11840 ISO

Chronos 1.4 – The World’s Most Affordable High-Speed Imaging Solution Starting At \$2,999.

Chronos 1.4 Features:

- 1280x1024 CMOS sensor with 6.6 μ m pixel size, 12 bit image depth, dynamic range of 56.7dB, and adjustable resolution.
- Up to 1,057 frames per second at full 1280x1024 resolution and up to 38,565 frames per second at 336x96 resolution.
- CS Lens mount with included C-mount adapter. Backfocus is field adjustable. Many C-mount adapters exist for manual control of popular lens types such as Nikon, Canon, and more.
- Exposures as fast as 2 microseconds with global electronic shutter.
- 8GB or 16GB high-speed internal RAM. Captured video non-recoverable after powering down.
- Black reference calibration for optimal image quality.
- On-camera push-button triggering or external trigger input options. Trigger level is adjustable (Zero to 6.6V) as well as trigger delay for customized trigger events. Debounce and pull-up settings are available.
- Commonly available EN-EL4a battery provides 1.75 hours of run time. Charge time (0-80%) is 2 hours with in-camera charger.

KRON TECHNOLOGIES CHRONOS 1.4 HIGH-SPEED CAMERA



Chronos 1.4 Common Resolutions:

Resolution	Frame Rate	8GB*	16GB*
1280x1024	1,057fps	4.13s	8.26s
1280x720	1,502fps	4.13s	8.27s
1024x768	1,771fps	4.11s	8.22s
800x600	2,873fps	4.15s	8.30s
800x480	3,587fps	4.15s	8.31s
640x480	4,436fps	4.20s	8.40s
640x360	5,903fps	4.21s	8.42s
640x120	17,424fps	4.28s	8.56s
640x96	21,649fps	4.30s	8.61s
336x96	38,565fps	4.60s	9.20s

*Maximum record time in seconds for 8GB and 16GB models.

Chronos 1.4 Features (Continued):

- Touchscreen controls with 5 inch, 800x480 capacitive touchscreen display.
- Edge triggered feature allows image frames to be captured on the rising or falling edge of an external input.
- Shutter gating feature allows the camera’s exposures to be controlled by an external input. Camera exposes while input is active.
- Focus peaking highlights sharp edges to aid focusing.
- Focus aid zooms-in to allow easier focusing.
- Zebra lines, rolling diagonal lines, indicate overexposed areas of the image.
- SD card slot, USB port and USB mini-B host ports.
- eSATA 3G
- Saves in compressed H.264 (MP4) video file format at bitrates up to 60Mbps.
- Active cooling with variable speed fan.
- Anodized aluminum body in either black or silver finish.
- User removable 650nm IR filter.
- Power Input 17-22V, 40W 5.5/2.5mm barrel jack (tip +). Power supply included.

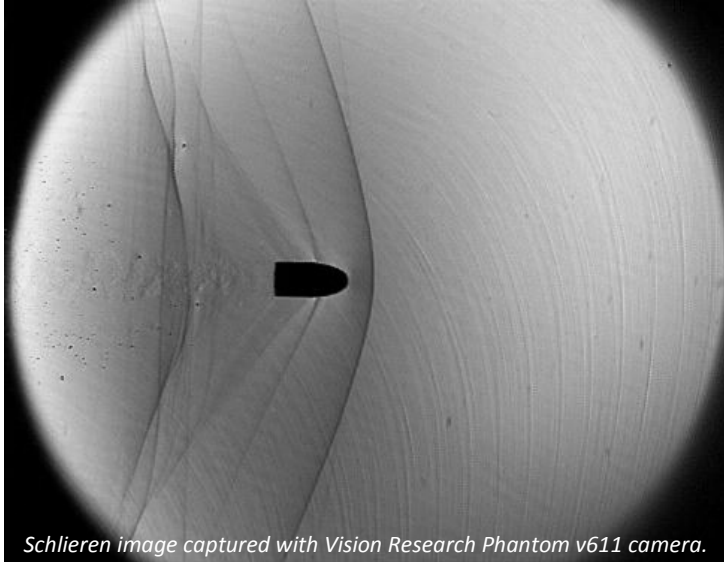
KRON TECHNOLOGIES CHRONOS 1.4 HIGH-SPEED CAMERA

AIMED
RESEARCH

Price Sheet

For reference only, prices may change without notice.

Chronos 1.4 High-Speed Camera 8GB Model	\$2,999
No-Cost Options:	
Color or Monochrome Image Sensor	
Black or Silver Finish	
Includes 1-Year Warranty	
Memory Upgrade To 16GB	\$400
Shipping (3-Day Air From Canada)	\$110
Extended Warranties	
3-Year Warranty (1yr + 2yrs)	\$349
4-Year warranty (1yr + 3yrs)	\$449
Computar 12.5-75mm Zoom Lens (New)	\$379
Computar 12.5-75mm Zoom Lens (Used)	\$250
External Hand Trigger	\$35
Macro Extension Tube Set	\$35
(0.5mm, 1mm, 5mm, 10mm, 40mm)	
C-Mount to Nikon Lens Adapter	\$50
C-Mount to Canon EF Lens Adapter	\$70



Schlieren image captured with Vision Research Phantom v611 camera.

Aimed Research Capability Highlights:

High-Speed Camera Rentals At Industry-Low Prices

Multi-Camera Synchronization

High-Speed Schlieren Imaging Of Invisible Gradients

Sensor Data Acquisition Correlated To Frame Exposures

Aimed Research Specific Capabilities:

- VariMag system available for adapting to various microscopes.
- Multiple Phantom v611 cameras available for synchronization.
- Beamsplitter optical setup available with limited applications for 180° out-of-phase frame capture. This would allow the combined images to be reviewed or stacked into a new image sequence resulting in double the frame rate for a given resolution compared to a single camera.
- High-speed schlieren setups available with 6in, 8in, or 12in optics for viewing invisible phenomena like shock waves and other pressure, heat, or chemical gradients, and various turbulent flows. Aimed Research's setups may provide increased depth of field at $f/11$ to $f/16$ while operating at sub-microsecond exposures (as fast as 285 nanoseconds).
- USB-based data acquisition systems available for sensor data capture correlated with instant of frame exposure.

This Chronos 1.4 data sheet is for reference only. For detail-critical applications, please discuss the specification details directly with the manufacturer, Kron Technologies.