

X-MOTION *high-speed camera*

- Frame rate up to 500 fps at full resolution
- Frame rate up to 32,000 fps at reduced resolutions
- Compact
- Solid, all-metal housing
- Gigabit Ethernet data interface
- Image-while-recording
- No dedicated camera controller necessary
- Built-in battery
- Stand-alone operation



Similar to its highly successful predecessor the AOS MOTIONeer, the X-MOTION retains unique features like built-in battery, stand-alone operation (no camera connection to the control PC required during recording) and ultra-compact size, yet offers many practical new features such as Gigabit Ethernet data interface and image-while-recording for even greater versatility.

Key features

- Gigabit Ethernet data interface (other data interfaces available on request).
- Image-while-recording: Live image visible while camera is in record mode.
- Built-in rechargeable battery with a capacity of 1 hour in standby mode or 1/2 hour in active mode.
- 4 status input / output lines for integration of external status signals.
- Multi-buffer-mode for multiple-session recording.
- Selectable dynamic level for best image quality.
- Auto-save function for automatic image data download after recording. Recording can be restarted after completion of download.
- AOS Imaging Studio PC application featuring on-screen display and time stamping (also IRIG-B), motion analysis and other practical functions.

Applications

The X-MOTION is particularly suitable for all applications where a compact and portable yet robust camera is essential:

- Industrial applications such as the installation and setting up of machines and assembly lines or subsequent troubleshooting.
- Research applications in mechanical-, electrical- and process engineering, materials stress testing, medical research, sports analysis.

Advantages

- Robust design for trouble-free operation
- Compact size and low weight for mobile applications
- Dynamic range control for optimization of image quality and sequence length (effectively doubling memory at no extra cost)
- Can be extended to suit tomorrow's application requirements
- Simple yet powerful control software



Software

All X-MOTION cameras come complete with AOS Imaging Studio. This PC application is also compatible with previous AOS cameras.

Although very easy to use, AOS Imaging Studio offers the powerful features necessary for the most demanding applications.

X-MOTION cameras are also supported by camera control network software such as FALCON Xtra and others.

Motion analysis functions (manual) for point-and-click measuring.

On-screen display allows text (or your logo) to be added to each frame of the image sequence.

Time stamp function (optional) marks every frame with a time stamp. IRIG-B time stamping available on request.

Extensions

Optional CF slot allows use of extensions such as Compact Flash Memory cards.

X-MOTION specifications

Sensor	1280 x 1024 pixels, color or monochrome.
Pixel size	12µm
Frame rate	500 fps at full resolution, up to 32,000 fps at reduced resolution.
Shutter time	4µsec – 1/fps, global shutter.
Dynamic range	30-bit color or 10-bit monochrome.
Gain control	User selectable for best image quality according to illumination and required sequence length: 10-bit: high image contrast / high sensitivity / shorter sequence. 8-bit: normal image contrast / lo / mid / hi sensitivity / medium sequence. 5-bit: low image contrast / lo / mid / hi sensitivity / longer sequence.
Input / output	14-pin connector, heavy-duty type, lockable.
Inputs	12V DC, set-to-rec, trigger, synch in, remote on.
Outputs	Synch out, strobe out, armed.
In/output status lines	4 status lines, in- or output, TTL, user configurable.
Data interface	Gigabit Ethernet.
Image memory	1.3 GB / 2.6 GB / 5.2 GB DRAM providing sequence lengths of 2, 4 or 8 sec. at full resolution, 500 fps and 8-bit dynamic level. Sequence length can be extended by reducing resolution and/or frame rate.
Temperature range	Operation: 0...+45°C, Storage: -10...+80°C
Housing	Solid design, featuring extruded and anodized aluminum housing.
Size / weight	71 x 71 x 121 mm / 900 g
Lens mount	C-mount. Adjustable back focus setting. Lens adapters (Nikon, others) available on request.
Camera mounts	Standard 3/8" thread with 1/4" insert.
Approvals / certification	In compliance with relevant standards.

Specifications are subject to changes without prior notice – v0708

Project engineering

- Design of turnkey systems
- Design of fully customized cameras
- Customized data interfaces (i.e. wireless or fibre-optic)
- Special protecting housings (i.e. underwater, explosion-proof)

Accessories

- Trigger devices (incl. radio-controlled devices)
- CF extension slot
- Fiber-optic data interfaces
- Optical systems, lenses

Services

- Customizing (camera equipment and software)
- Warranty extensions
- Maintenance contracts
- Financing, leasing



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