SMIZE *high-speed camera*

- Ultra-compact
- Built-in battery
- Stand-alone operation
- Shockproof up to 120 G
- No dedicated camera controller necessary

Similar to the highly successful VITcam, the new SMIZE retains unique features like built-in battery and stand-alone operation (no camera connection to the control PC required during recording), yet offers an even smaller form factor, making it the ideal choice for all applications where space is limited.

Key features

- Built-in rechargeable battery with a capacity of 4 hours in standby mode (preview, playback) or 20 minutes in record mode.
- Multi-buffer-mode for multiple-session recording.
- 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.

Advantages

- The pocket-size SMIZE fits the tightest spaces.
- No bulky hub or controller required.
- Stand-alone operation and built-in battery for maximum data security.
- 1.3 Mpixel resolution and user-selectable gain control for superior image quality.

Applications

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

- Vehicle impact testing (camera can be mounted in door panels for example, allowing free line of sight to the dummy or interior details without obstruction by curtain airbags or other equipment).
- Automotive research (image sequences showing concealed or inaccessible components in operation: observation of engine block vibration, suspension and brake assemblies, steering components).
- R&D in process engineering or in troubleshooting where space for positioning the camera is very limited but a direct view of the object, unobstructed by levers, cables or other items, is essential.

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Software

All SMIZE 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.

SMIZE 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. Optional IRIG-B time stamping.

Extensions

Up to 4 SMIZE cameras can be connected to a SMIZE-HUB for on-board applications where phase-locked synchronization is required (see SMIZE-HUB spec. sheet for details).

Project engineering

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

Accessories

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

Services

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

SMIZE 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	24-bit color or 8-bit monochrome.
Gain control	User selectable for best image quality according to illumination: Low gain – low noise, best image quality. Standard – normal image quality. High gain – highest sensitivity.
Input / output	Multi-pin connector, heavy-duty type, lockable.
Inputs	12V DC, set-to-rec, trigger, synch in, remote on.
Outputs	Synch out, strobe out, armed.
Data interface	AOS data interface (IEEE1394a compatible).
Data transfer rate	100 / 200 / 400 Mbps
Image memory	650 MB or 1.3 GB DRAM providing sequence lengths of 1 or 2 sec. at full resolution, 500 fps. Sequence length can be extended by reducing resolution and/or frame rate.
Temperature range	Operation: 0…+45°C, Storage: -10…+80°C
Housing	Rugged design featuring machined and anodized aluminum housing.
Shock resistance	Shockproof up to 120 G / 15 msec / 3 axes
Size / weight	71 x 71 x 68 mm / 750 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. Additional M6 threads for secure mounting in Hi-G applications.
Approvals / certification	In compliance with relevant standards.

Specifications are subject to changes without prior notice – v0306

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