

Innovative technology for maximum light efficiency

- **Extremely light sensitive:**
2,500 ASA monochrome, 2,000 ASA RGB
- **Up to 506 frames per second at**
1,280 x 1,024 pixel resolution
- **Stepless adjustable frame rate up to more than**
100,000 frames per second at reduced resolution
- **3.2 seconds onboard Recording Memory at full**
resolution and full speed
- **GigE Vision[®] compatible**
- **ImageBLITZ[®] Automatic Trigger**
- **Crashproof up to 100 g shock, 10 g vibration**
- **Pixel based Fixed Pattern Noise Correction**
- **Burst Trigger Mode**
- **Multi Sequence Mode**



Lighting becomes a minor matter

So far, lighting was the crucial point in high-speed recording. It caused a lot of attention and expense to be paid for this item. MotionBLITZ EoSens[®] mini1 packs up the lighting issue! Its unprecedented photo sensitivity enables real high-speed recordings under normal lighting conditions.

Fixed Pattern Noise Correction

Every single pixel is adjusted regarding blackvalue and dynamic, in real time. The benefits are low noise and crystal clear pictures.

Onboard Ring Buffer (pre/post Trigger)

The onboard Ring Buffer allows buffering of triggered events up to 3.2 seconds at full resolution and full speed. Free adjustable pre or post triggered recording time.

ImageBLITZ[®] Automatic Trigger

The ImageBLITZ[®] Automatic Trigger allows objectdriven triggering directly through the camera by a selectable image region. This image area can be adjusted as trigger sensor. If there is a change in the lightness (on single frame level), the camera will trigger automatically.

Burst Trigger Mode (post Trigger)

The Burst Trigger Mode allows to divide the memory into several thousand image bursts. For every event a defined number of frames will be stored.

Dynamic Range Adjustment

The camera's Dynamic Range Adjustment feature allows to change the CMOS sensor's linear transfer characteristic into a non-linear one. Thus, the camera provides clear details even at extreme dark/light contrasts.

Maximum performance at minimum form factor

MotionBLITZ EoSens[®] mini1 comes up with a small form factor. This ultra compact housing with a depth of approx. 63 mm (C-Mount version) allows universal using, even in cramped space conditions.

Flexible and easy use

The camera's Gigabit Ethernet interface allows to operate multiple cameras from any standard Notebook/PC over a distance of up to 100 m.

A great variety of extensions

Color version, F-Mount front, ImageBLITZ[®] Automatic Trigger, Multi Sequence Mode, side placed connectors, cooling option and Hi-G version are optional available.





MotionBLITZ EoSens® mini1 High-Speed Recording Camera System

Technical Data

Sensor	- CMOS sensor 1,280 (H) x 1,024 (V) pixel - active area 22.9 mm (diagonal) - 17.92 (H) x 14.34 (V) mm - 8-bit monochrome or RGB-color with BAYER-filter
Pixel size	14 x 14 µm
Light sensitivity	2,500 ASA monochrome, 2,000 ASA RGB-color, monochrome 25 V/lux-s
Image speed	1-506 fps* at full resolution, up to more than 100,000 fps at reduced resolution
Quad Mode	1,700 fps* at full resolution (with pixel algorithm, only available for monochrome)
Recording time	- 3.2 s at full resolution and full speed - extended recording times at reduced resolution and/or frame rate
Shutter	global electronic shutter from 2 µs to 1 s, in 2 µs steps
Sensor dynamic	up to 80 dB using Dynamic Range Adjustment
Spectral bandwidth	400-900 nm
Amplification	Digital Gain 1- 4 in 8 steps
System design	- scaleable and network-compatible with standard PCs or Notebooks - synchronous processing of multiple cameras
Camera size	63 x 63 x 64.5 mm (C-Mount) 63 x 63 x 94 mm (F-Mount)
Weight	280 g, without lens
Camera body temperature	+5...35 °C (without cooling option) +5...45 °C (with cooling option)
Lens mount	C-Mount or F-Mount
Power supply	10-30 V DC external power supply
Power consumption	7.5 W max.
Software	MotionBLITZ® Director2 operator software for Windows® 7/XP
Frame storage	BMP, JPG, TIFF, AVI, DNG, PNG and REC (Mikrotron proprietary raw) file format
Camera-PC interface	Gigabit Ethernet interface
Trigger	triggering with external signal/switch, MotionBLITZ® Director2 software or ImageBLITZ® Automatic Trigger
Synchronisation	- in- and output to synchronise multiple cameras or trigger any external devices (5V TTL) - alternative ARM output (recording state)
Plug position	rearside, optional side placed

Standard Equipment

ImageBLITZ® Automatic Trigger · Multi Sequence Mode
Burst Trigger Mode · Fixed Pattern Noise Correction
Dynamic Range Adjustment · Quad Mode · 3.2 s onboard Ring Buffer
C-Mount front · rearside placed connectors · power supply operator software · Ethernet cable 3 m

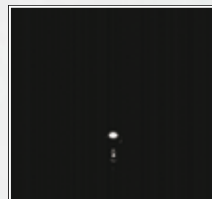
Optional Extensions

Color version · F-Mount front · side placed connectors
cooling option +5...45 °C · Hi-G 100 g shock, 10 g vibration

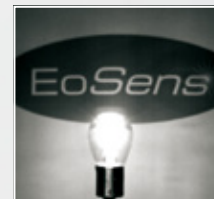
Recording Data

Resolution	Frame Rate	Resolution	Frame Rate
1,280 (H) x 1,024 (V)	506 fps	512 (H) x 512 (V)	2,033 fps
1,280 (H) x 720 (V)	718 fps	320 (H) x 240 (V)	5,670 fps
1,280 (H) x 512 (V)	1,008 fps	128 (H) x 100 (V)	18,610 fps
640 (H) x 480 (V)	1,869 fps	128 (H) x 10 (V)	79,540 fps

* fps = frames per second



Standard high-speed



EoSens®



EoSens®-Dynamic Range Adjustment

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