



MotionBLITZ EoSens® Cube

Supersensitive High Speed Recording Camera

Innovative technology for maximum light efficiency

- **Maximum Photo Sensitivity:**
2,500 ASA monochrome, 700 ASA RGB
- **Up to 500 Frames per Second at 1,280 x 1,024 resolution**
- **Stepless Adjustable Frame Rate up to 113,000 Frames per Second @ reduced resolution**
- **13 Sec. Onboard Recording Memory**
- **GigE Vision Compatible**
- **Standalone Operation up to 1 h, image storage up to 24 h (Memory Stand By Mode)**
- **ImageBLITZ® Auto Trigger**
- **Crashproof up to 100g**
- **pixel-based Fixed Pattern Noise Correction**
- **Burst Trigger 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 to this item. MotionBLITZ EoSens® Cube packs up the lighting issue! Its unprecedented photo sensitivity enables real high speed recordings at 1.3 mega pixels under normal lighting conditions.

Fixed Pattern Noise Correction

MotionBLITZ EoSens® Cube is the first camera system that adjusts every single pixel regarding blackvalue and dynamic, while recording at full speed. In consequence one gains crystal clear pictures.

Triggered Onboard Recording with History Funktion

The MotionBLITZ EoSens® Cube onboard ring buffer allows buffering of triggered events up to 13 seconds at full resolution and speed. The history function allows pre and post event recording through free selection of frames or recording time.

The ImageBLITZ® Auto Trigger even goes a step further: it allows objectdriven triggering directly through the camera by a selectable image region defined as sensor.



Burst Trigger Mode

In Burst Trigger mode, it is possible to divide the memory into several thousand sequences in order to make optimum use of it. Comparable events can be recorded over a longer period without the data having to be read in between.

Burst Trigger mode thus offers a simplified method for systematically analysing processes.

Dynamic Range Adjustment for Extreme Contrasts

The camera's dynamic range adjustment option allows to change the CMOS sensors linear range into a non-linear one, corresponding to the human eye. Thus, MotionBLITZ EoSens® Cube provides clear details even at extreme dark/light contrasts.

Maximum Performance at Minimum Form Factor

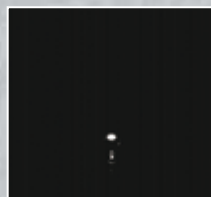
MotionBLITZ EoSens® Cube comes up with a small form factor. A housing depth of appx. 92mm (C-mount version) allows universal using, even in cramped space conditions.

Flexible and Easy Use

The MotionBLITZ EoSens® Cube Gigabit Ethernet interface even allows to operate multiple cameras from any standard Notebook / PC over a distance of 100m. Equipped with a ruggedized Phoenix industrial plug, the MotionBLITZ EoSens® Cube is designed for operation under real industrial conditions. Additionally images can be stored on the camera's internal ring buffer for up to 24 hours without an external power source.

A Great Variety of optional Extensions

Get exactly the camera you need: MotionBLITZEoSens® Cube offers a multiple range of optional all-purpose extensions. Buffer extension, F-mount option or multi-sequence recording are available. Also, Hi-G is optional available.



Standard High Speed



EoSens



EoSens - Dynamic Range Adjustment



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Technical Data

Sensor	Fast CMOS Sensor, 1,280(h) x 1,024(v) pixels Active Sensor Area 22,9 mm (diagonal) 10-bit monochrome or RGB color with BAYER filter
Pixel Size	14 x 14 µm
Light Sensitivity	Monochrome 25 V/lux-sec
Image Speed	1 - 500 fps at full 1,280 x 1,024 resolution, up to 113,000 fps at reduced resolution
Recording Time	13 sec. at full resolution & 500 fps. Extended recording times at reduced resolution and / or image speed
Shutter	Global Electronic Shutter from 2µsec to 1sec, 1,024 steps
Internal Dynamics	up to 90 dB using dynamic shutter control
Spectral bandwidth	400 - 900 nm
Amplification	Digital Gain 1 - 4 in 8 steps
System design	Modular; scaleable and network-compatible with standard- or notebook PCs Synchronous processing of multiple cameras
Camera Size	69 x 93 x 92 mm (C-Mount) 69 x 93 x 128 mm (F-Mount)
Weight	900 g, without lens
Environment	+ 5...45°C
Battery Capacity	Recording: 1h ; standby: 1.5 hrs, data retention: 8 hrs
Lens mount	C-Mount or F-Mount
Power Supply	10 - 30V DC external power supply, or from internal battery
Power Consumption	15W max
Software	MotionBLITZ® Director operator software for Windows 2000/XP/Vista
Frame Storage	BMP oder AVI file format
Camera-PC interface	1000 /100 Ethernet Interface (Gigabit Ethernet)
Trigger	Triggering with external Signal, internal Switch, MotionBLITZ® Software or ImageBLITZ®
Synchronisation	Synchronisation In- and Output to synchronise e.g. multiple cameras (5V TTL)
Analog input	0 - 2.5 V (8-Bit), inserted in each image
Digital Input	4-Bit with Opto Couplers, inserted in each image

Optional Extensions

Ring buffer extension to 13 sec recording time @ full resolution & speed	ImageBLITZ® Auto Trigger	Multi-sequence recording	Hi-G 100g Shock 100g / 25 msec Vibration 10g	IRIG B Synchronization
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Recording Data

Resolution	Frame Rate	Resolution	Frame Rate
1,280(H) x 1.024(V)	506 fps	512(H) x 512(V)	2,040 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	100(H) x 100(V)	19,000 fps
640(H) x 480(V)	1,869 fps	100(H) x 10(V)	81,512 fps

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