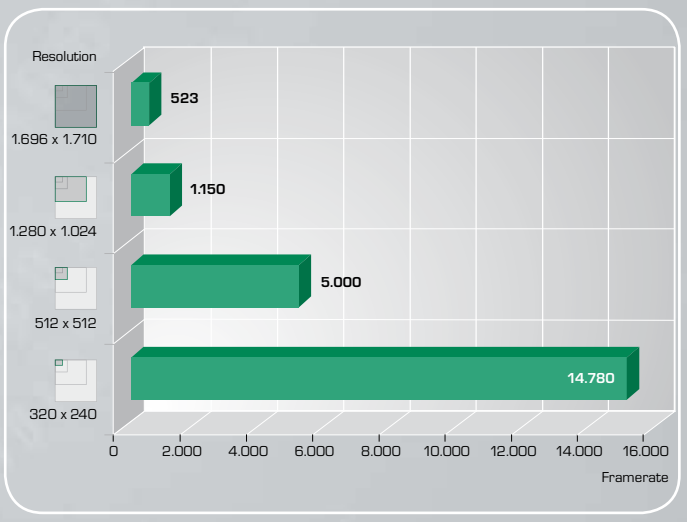
MotionBLITZ EoSens® Cube7
High-Speed Recording Camera

3 Megapixel Resolution – for detailed images

- **Extremely flexible in resolution and speed**
- **3 Megapixel resolution up to 523 frames per second at 1,696 (H) x 1,710 (V) pixel resolution**
- **Stepless adjustable frame rate up to 285,000 frames per second at reduced resolution**
- **Maximum photo sensitivity: 1,200 ASA monochrome, 1,000 ASA RGB**
- **6 seconds onboard Recording Memory at full resolution and speed**
- **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 100 g**
- **pixel-based Fixed Pattern Noise Correction**
- **Burst Trigger Mode**
- **Multi Sequence Mode**



Extremely flexible in resolution and speed

The MotionBLITZ Eo*Sens*® Cube7 meets the requirements for most varied applications, because resolution and speed are variable adjustable. A resolution of 1,696 (H) x 1,710 (V) pixels ensures superb image quality with razor-sharp images. With the proven Mikrotron High-Speed technology the camera takes up to 285,000 frames per second.

Maximum performance at minimum form factor

MotionBLITZ Eo*Sens*® Cube7 comes up with a small form factor. A housing depth of appx. 92 mm (C-Mount Version) allows universal using, even in cramped space conditions.

ImageBLITZ® Auto Trigger

The ImageBLITZ® Auto Trigger allows objectdriven triggering directly through the camera by a selectable image region defined as sensor. A free selectable rectangle can be adjusted as trigger sensor. If there is a change in the lightness (on single frame level), the camera will trigger automatically.

Dynamic Range Adjustment for extreme contrasts

The camera's Dynamic Range Adjustment option allows to change the CMOS sensor's linear range into a non-linear one. Thus, MotionBLITZ Eo*Sens*® Cube7 provides clear details even at extreme dark/light contrasts.

Flexible and easy use

The camera's Gigabit Ethernet® interface even allows to operate multiple cameras from any standard Notebook/PC over a distance of 100 m. Additionally images can be stored on the camera's internal ring buffer for up to 24 hours without an external power source.

Triggered onboard recording with history function

The MotionBLITZ Eo*Sens*® Cube7 onboard ring buffer allows buffering of triggered events up to 6 seconds at full resolution and speed. The history function allows pre and post event recording through free selection of frames or recording time. The recording time can be doubled through compression.

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Special Electronics
Digital Slow Motion
Image Processing

MIKROTRON

MotionBLITZ EoSens® Cube7
High-Speed Recording Camera

Burst Trigger Mode (post Trigger)

In Burst Trigger mode, it is possible to divide the memory into several thousand sequences. Events can be recorded over a longer period without the data having to be read out between.

Fixed Pattern Noise Correction

MotionBLITZ EoSens® Cube7 adjusts every single pixel regarding blackvalue and dynamic in real time. In consequence one gains low noise and crystal clear pictures.

Technical Data	
Sensor	CMOS sensor 1,696 (H) x 1,710 (V) pixel active area 19.27 mm (diagonal) 13.57 (H) x 13.68 (V) mm 8-bit monochrome or RGB-color with BAYER-filter
Pixel size	8 x 8 µm
Light sensitivity	1,200 ASA monochrome, 1,000 ASA color
Image speed	1 - 523 fps* at full 1,696 (H) x 1,710 (V) resolution. Up to 285,000 fps at reduced resolution
Recording time	6 s at full resolution or 523 fps. Extended recording times at reduced resolution and/or image speed
Compression	double recording time through reduction of color depth to 4-bit = 16 greysteps
Shutter	global electronic shutter from 2 µs to 1 s, in 2 µs steps
Internal dynamics	up to 90 dB using dynamic shutter control
Spectral bandwidth	400–900 nm
Amplification	Digital Gain 1, 1.5 & 2
System design	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: up to 24 hrs (Memory Standby Modus)
Lens mount	C-Mount or F-Mount
Power supply	10 - 30 V DC external power supply, or from internal battery
Power consuption	15 W max.
Software	MotionBLITZ® Director2 operator software for Windows 2000/XP/Vista

Technical Data	
Frame storage	BMP-, TIF-, DNG, JPG- or AVI file format
Camera-PC interface	1000/100 Ethernet Interface (Gigabit Ethernet)
Trigger	Triggering with external Signal, internal switch, MotionBLITZ® Director2 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 Optocouplers, inserted in each image

Standard Equipment
Burst Trigger Mode · Fixed Pattern Noise Correction Dynamic Range Adjustment · compression · C-Mount Front 1.5 s onboard Ring Buffer · power supply · operator software

Optional Extensions				
Ring buffer extension to 6 s recording time at full resolution & speed	ImageBLITZ® Auto Trigger	Multi-sequence recording	Hi-G 100 g Shock 100 g/25 msec Vibration 10 g	IRIG B Synchroni-zation

Recording Data			
resolution	**frame rate**	**resolution**	**frame rate**
1,696 (H) x 1,710 (V)	523 fps	640 (H) x 480 (V)	4,450 fps
1,280 (H) x 1,024 (V)	1,150 fps	512 (H) x 512 (V)	5,000 fps
1,280 (H) x 720 (V)	1,633 fps	320 (H) x 240 (V)	14,780 fps
1,000 (H) x 1,000 (V)	1,438 fps	100 (H) x 100 (V)	54,279 fps

* fps = frames per second

Revision I / IX

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