

### 3 Megapixel High Definition - 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 more than 200,000 frames per second at reduced resolution**
- **Maximum photo sensitivity:**  
1,200 ASA monochrome, 1,000 ASA RGB
- **Up to 12.0 seconds onboard Recording Memory at full resolution and speed**
- **GigE Vision® compatible**
- **Stand-alone operation up to 1 h (internal battery), image storage up to 24 hrs (Memory Standby Mode)**
- **ImageBLITZ® Automatic Trigger (optional)**
- **Shockproof up to 100 g shock, 10 g vibration**
- **Pixel based Fixed Pattern Noise Correction**
- **Burst Trigger Mode**
- **Multi Sequence Mode**
- **SD-Card interface**

#### Extremely flexible in resolution and speed

The MotionBLITZ EoSens® Cube7 offers the features for most varied applications. Resolution and speed can be user defined as needed. 1,696 x 1,710 pixels deliver superb image quality with high level of details. Based on Mikrottron high-speed technology the camera takes more than 200,000 frames per second to freeze any action.

#### Fixed Pattern Noise Correction

The MotionBLITZ EoSens® Cube7 adjusts every single pixel regarding blackvalue and dynamic in real time. The resulting video strikes with low noise and crystal clear images.



**GigE**  
VISION

#### Onboard Ring Buffer (pre/post Trigger)

The onboard Ring Buffer allows buffering of triggered events up to 12 seconds at full resolution and full speed. Freely adjustable pre or post triggered recording settings capture the events as they happen.

#### ImageBLITZ® Automatic Trigger

The ImageBLITZ® Automatic Trigger allows image driven triggering directly through the camera by a user defined image region. This image area can be defined and calibrated as trigger sensor. A change in the brightness, checked in every frame, will trigger the camera or record an event.

#### 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. This eases to record sequence of events.

#### Dynamic Range Adjustment

The camera's Dynamic Range Adjustment feature allows to widen the CMOS sensor's dynamic range for high contrast scenes. Thus, the camera provides clear details even at extreme contrasts.

#### Maximum performance at minimum form factor

MotionBLITZ EoSens® Cube7 comes up with a small form factor. The small footprint of approx. 92x93 mm (C-Mount version) allows an easy handling, even in cramped conditions.

#### Flexible and easy to 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. Additionally, images can be stored on the camera's internal memory for up to 24 hours without an external power source (Memory Standby Mode).

#### A great variety of options

Color version, F-Mount front, rearside placed connectors, Hi-G version, ImageBLITZ® Automatic Trigger, Buffer extension up to 12 seconds, Multi Sequence Mode, I-IRIG B, and SD-Card interface are optional available.



# MotionBLITZ EoSens® Cube7 High-Speed Recording Camera System

## 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 with micro lenses
Light sensitivity	1,200 ASA monochrome, 1,000 ASA RGB-color, monochrome 25 V/lux-s
Image speed	1–523 fps* at full 1,696 (H) x 1,710 (V) resolution, more than 200,000 fps at reduced resolution
Recording time	– 12.0 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, 1.5 & 2
Camera size	69 x 93 x 92 mm (C-Mount) 69 x 93 x 128 mm (F-Mount)
Weight	900 g, without lens
Camera body Temperature	+5...45 °C (ambient)
Battery capacity	– recording: 1h – standby: 1.5 hrs – data retention: up to 24 hrs (Memory Standby Mode)
Lens mount	C-Mount or F-Mount
Power supply	10–30 V DC external power supply or internal battery
Power consumption	15 W max.
Software	MotionBLITZ® Director2 operator software for Windows® 7/XP 64-bit
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 (TTL), internal switch, software trigger or ImageBLITZ® Automatic Trigger
Synchronisation	– in- and output to synchronize multiple cameras or trigger any external devices (5V TTL) – alternative ARM output (recording state)
Analog input	0–2.5 V (8-bit), recorded with each image
Digital input	4-bit with Optocouplers, recorded with each image
Plug position	side placed, optional rear side placed

## Standard Equipment

Burst Trigger Mode · FPN Correction · Dynamic Range Adjustment  
3.0 s onboard Ring Buffer · C-Mount front · side placed connectors  
Memory Standby Mode · internal battery power supply  
operator software · Ethernet cable 3 m

## Optional Extensions

Ring Buffer extension up to 12.0 s recording time at full resolution and full speed · ImageBLITZ® Automatic Trigger · Multi Sequence Mode  
Color version · F-Mount front · Hi-G 100 g shock, 10 g vibration  
IRIG B synchronisation · rearside placed connectors · SD-Card interface

## Recording Data

Resolution	Frame Rate	Resolution	Frame Rate
1,696 (H) x 1,710 (V)	523 fps	640 (H) x 480 (V)	4,460 fps
1,280 (H) x 1,024 (V)	1,155 fps	512 (H) x 512 (V)	5,010 fps
1,280 (H) x 720 (V)	1,640 fps	320 (H) x 240 (V)	14,770 fps
1,024 (H) x 1,024 (V)	1,410 fps	128 (H) x 128 (V)	43,540 fps

\* fps = frames per second

