

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**
- **Crashproof 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 meets the requirements for most varied applications, because resolution and speed are variable adjustable. A resolution of 1,696 x 1,710 pixels ensures superb image quality with extremely sharp images. With the proven Mikrotron high-speed technology the camera takes up to more than 200,000 frames per second.

Fixed Pattern Noise Correction

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



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. 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® Cube7 comes up with a small form factor. A housing depth of approx. 92 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. 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 extensions

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	<ul style="list-style-type: none"> - 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, up to more than 200,000 fps at reduced resolution
Recording time	<ul style="list-style-type: none"> - 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
System design	<ul style="list-style-type: none"> - scaleable and network-compatible with standard PCs or Notebooks - 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
Camera body temperature	+5...45 °C
Battery capacity	<ul style="list-style-type: none"> - 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 from internal battery
Power consumption	15 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, internal switch, MotionBLITZ® Director2 software or ImageBLITZ® Automatic Trigger
Synchronisation	<ul style="list-style-type: none"> - in- and output to synchronise multiple cameras or trigger any external devices (5V TTL) - alternative ARM output (recording state)
Analog input	0-2.5 V (8-bit), inserted in each image
Digital input	4-bit with Optocouplers, inserted in each image
Plug position	side placed, optional rearside placed

Standard Equipment

Burst Trigger Mode · Fixed Pattern Noise 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)	4,465 fps
1,280 (H) x 1,024 (V)	1,155 fps	512 (H) x 512 (V)	5,015 fps
1,280 (H) x 720 (V)	1,640 fps	320 (H) x 240 (V)	14,775 fps
1,024 (H) x 1,024 (V)	1,410 fps	128 (H) x 128 (V)	43,540 fps

* fps = frames per second

