

MotionBLITZ® Cube5

Sensitive High-Speed Recording Camera

Extremely Fast with Supreme Light Efficiency

Mikrotron MotionBLITZ® Cube5 is the latest of Mikrotron's Cube High-Speed Recording camera family, developed to face high-speed requirements by cutting edge camera technology. Up to 5,000 fps are capable at the camera's 512(H) x 512(V) resolution, however increasable to impressing 195,000 fps by reduction of the Region of Interest (RoI). However, light is not an issue: the Cube's light sensitivity of 1,000 / 800 ASA (monochrome / color) enables invaluable high speed recordings even in less illuminated applications.

Recording with History Function

The MotionBLITZ® Cube5 onboard ring buffer allows buffering of triggered events up to 3 seconds at full resolution and speed (extended buffer option). The history function allows pre and post event recording through free selection of frames or recording time. The optional available ImageBLITZ® Auto Trigger even goes a step further: it allows object generated triggering directly through the camera by a selectable section of the RoI used as sensor.

Maximum Performance at Minimum Form Factor

The MotionBLITZ® Cube5 comes up with the smallest form factor ever for a high speed recording camera at this capability. A housing depth of appx. 92mm (C-Mount version) allows the MotionBLITZ® Cube5 to be utilized in an unrivalled manner even in cramped space conditions.



GigE Vision: Absolute Flexibility at High Transfer Rates

The MotionBLITZ® Cube5 Gigabit-Ethernet interface allows camera operation from any standard PC or Notebook at highest transfer rates. Provided with a ruggedized Phoenix industrial plug, the Cube5 is designed for operation under real industrial conditions. Based on innovative GigE Vision communication standard, the Cube5 enables a multiplicity of image processing software to be frictionless attached.

A Great Variety of Extension Options

Get exactly the camera you need: MotionBLITZ® Cube5 offers a multiple range of optional all-purpose extensions. Many options from ring buffer upgrade to ImageBLITZ® Auto Trigger or multi sequence recording are available. The optional integrated F-Mount Lens mount provides a much larger field of view which results in an evenly exposed image. Even a Hi-G-Version is available.

- **1,000 / 800 ASA Light Sensitivity**
- **Up to 5,000 fps* at 512(H) x 512(V) Resolution**
- **Up to 195,000 fps by Infinitely Variable RoI**
- **Smallest Form Factor, Minimal Housing Depth**
- **GigE Vision Interface with Phoenix Industrial Plug**
- **Battery Pack for up to 1 h Operating**
- **Power Down Mode for 8h Data Retention**
- **Multisequence Recording**
- **ImageBLITZ® Auto Trigger**
- **Memory Extension**
- **Shock and Vibration Proof Version Available**
- **IRIG-B Frame Synchronisation**

*fps (frames per second)

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Technical Data

Light Sensitivity	1,000 ASA monochrome 800 ASA color
Sensor	Fast CMOS Sensor, 512(H) x 512(V) pixel 8-bit monochrome or RGB color with BAYER filter
Pixel Size	16 x 16 µm
Sensor Sensitivity (monochrome)	9V/lux-Sec. bei 550nm
Frame Speed	28 - 5,000 fps* @ full 512 (H) x 512 (V) resolution Up to 195,000 fps* with reduced resolution
Recording Time	1.5 sec. @ full resolution & 5,000 fps Extended recording times at reduced resolution and/or image speed
Shutter	Global Electronic Shutter from 2µsec to 1/ frame rate
Internal Dynamics	59 dB
Spectral Bandwidth	400 – 800 nm
System Design	Modular, scaleable and network-compatible concept via standard PC or notebook Synchronous processing of multiple cameras
Camera Size	93 (B) x 69 (H) x 92 (T) mm (C-Mount) 93 (B) x 69 (H) x 128 (T) mm (F-Mount)
Weight	900g, without lens
Environment	+5...45° C, (41-113°F)
Battery Capacity	Recording mode: 1h; standby mode 1.5 hours; Power Down mode 8 h
Lens Mount	C-Mount; F-Mount (option)
Power Supply	10,5 - 24V DC external power supply and internal rechargeable battery
Power Consumption	15W max
Software	MotionBLITZ® operator software for Windows 2000/XP™
Frame Storage	BMP and AVI - file format
Camera-PC Interface	1000/100 Ethernet Interface (Gigabit Ethernet)
Triggerung / Synchronisation	Ext. Trigger; ImageBLITZ / Sync.-Input on the camera (opto coupled)
Synchronisation	TLL-Sync. Output (opto coupled)
Analog Input	0-2.5V (8-Bit) (opto coupled)
Digital Input	4 Bit (TLL) (opto coupled)

*fps (frames per second)

Optional Extensions

Extended Buffer to 3 sec recording time @ full resolution & speed	ImageBLITZ®Auto Trigger	Multi sequence recording	F-Mount	Hi-G 100g Shock 100g / 25 msec Vibration 10g	Industrial Standard Phoenix Interface Plug	IRIG B Synchronisation
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Recording Data

Resolution	Frame Rate	Resolution	Frame Rate
512(H) x 512(V)	5,000 fps*	512(H) x 64(V)	40,000 fps*
512(H) x 256(V)	10,000 fps*	512(H) x 28(V)	80,000 fps*
512(H) x 128(V)	20,000 fps*	512(H) x 10(V)	195,000 fps*

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