

# MotionBLITZ® Cube4 High-Speed Recording Camera

## *Fast and Compact: a New High-Speed Generation*

### **Fast Onboard Recording**

Things are getting faster in modern industrial environment. Clock rates and velocities of up-to-date production lines or machine technology speed up, leading visual analysis into a new high speed challenge.

The Mikrotron MotionBLITZ® Cube4 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 1,000 fps are capable at the camera's 1280(H) x 1024(V) resolution, however increasable to impressing 93,000 fps by reduction of the Region of Interest (RoI).

### **Recording with History Function**

The MotionBLITZ® Cube4 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® Cube4 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® Cube4 to be utilized in an unrivalled manner even in cramped space conditions.



### **GigE Vision: Absolute Flexibility at High Transfer Rates**

The MotionBLITZ® Cube4 Gigabit-Ethernet interface allows camera operation from any standard PC or Notebook at highest 1000 MBit/s transfer rates. Provided with a ruggedized Phoenix industrial plug, the Cube4 is designed for operation under real industrial conditions. Based on innovative GigE Vision communication standard, the Cube4 enables a multiplicity of image processing software to be frictionless attached.

### **A Great Variety of Extension Options**

Get exactly the camera you need: MotionBLITZ® Cube4 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. Even a Hi-G-Version is available.

- **Up to 1.000 fps\* at 1280(H) x 1024(V) resolution**
- **Stepless adjustable Frame Rate up to 93.000 fps**
- **Smallest Form Factor, Minimal Housing Depth**
- **GigE Vision Interface & Phoenix Industrial Plug**
- **Standalone recording up to 1 h**
- **ImageBLITZ® Auto Trigger option**
- **Memory extension option**
- **Unrivalled price-performance relationship**

\*fps (frames per second)

# MotionBLITZ® Cube4

## High-Speed Recording Camera

### Technical Data:

<b>Sensor</b>	Fast CMOS Sensor, 1280(H) x 1024(V) pixel 8-bit monochrome or RGB color with BAYER filter
<b>Pixel Size</b>	12 x 12 µm
<b>Light Sensitivity</b>	Monochrome: 1,600 bits/lux-sec @ 550nm, Vref=1V
<b>Image Speed</b>	28 – 1,000 fps @ full 1280(H) x 1024(V) resolution Up to 93,000 fps @ reduced resolution
<b>Recording Time</b>	1.5 sec. @ full resolution & 1,000 fps Extended recording times at reduced resolution and/or image speed
<b>Shutter</b>	Global Electronic Shutter from 2µsec to 1/ frame rate
<b>Internal Dynamics</b>	59 dB
<b>Spectral bandwidth</b>	400 – 800 nm
<b>System design</b>	Modular, scaleable and network-compatible concept via standard PC or notebook Synchronous processing of multiple cameras
<b>Camera Size</b>	93 x 69 x 92 mm (C-Mount) 93 x 69 x 128 mm (F-Mount option)
<b>Weight</b>	900 g , without lens
<b>Environment</b>	+5...45°C (41-113°F)
<b>Battery Capacity</b>	Recording mode: 1h ; standby mode 1.5 hours
<b>Lens mount</b>	C-Mount, F-Mount optional
<b>Power supply</b>	10,5 - 24V DC external power supply, or from internal battery
<b>Power consumption</b>	15W max
<b>Software</b>	MotionBLITZ® operator software for Windows 2000/XP™
<b>Frame Storage</b>	BMP and AVI - file format
<b>Camera-PC interface</b>	1000 /100 (Gigabit Ethernet)
<b>Trigger</b>	Trigger- and Sync. input on the camera
<b>Synchronisation</b>	TTL-Sync. output
<b>Analog Input</b>	0-2,5V (8-Bit)
<b>Digital Input</b>	4 Bit (TTL)

### Optional Extensions:

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

Resolution	Frame Rate	Resolution	Frame Rate
1280(H) x 1024(V)	1.000 fps	1280(H) x 102(V)	10.000 fps
1280(H) x 512(V)	2.000 fps	1280(H) x 50(V)	20.000 fps
1280(H) x 204(V)	5.000 fps	1280(H) x 19(V)	50.000 fps
1280(H) x 146(V)	7.000 fps	1280(H) x 10(V)	93.282 fps

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