

MotionPro HS-3

Plug'n'Play High Speed Imaging



RedLake's MotionPro HS-3 combines excellent resolution to frame rate performance, along with the advanced features you require for accurate high speed motion analysis on your PC or Mac laptop or desktop computer. The MotionPro HS-3 delivers a resolution of 1280 x 1024 with an active-pixel-CMOS sensor with very high frame rates in a compact enclosure.

The MotionPro HS-3 can be used in light critical applications due to the very light sensitive image sensor, the selectable gain and pixel binning.

With the MotionPro HS-3 camera integration could not be easier. Just install the drivers and software, connect one or more HS-3 cameras to USB2.0 ports or hub, and you are ready to capture high speed digital video. Control the system with the feature rich MotionPro Central software or use the LabVIEW or MATLAB plug-in. Or create you own software using the detailed SDK.

Video capture with MotionPro HS-3 cameras may be initiated via software or a wide variety of external triggers including optical, acoustic or electrical, as well as simple hand-held trigger switches.

HIGHLIGHTS

1280x1024 CMOS Sensor

- Max. 1040 fps at full resolution
- Up to 64,000 fps at reduced res.

Electronic Shutter from 1ms

- Double exposure mode for PIV applications. 100 μ s interframe time (Optional)

FlexROI configurable region of interest for selection of precise field of view to maximise performance

USB 2.0 Interface

for simple integration

LabVIEW and MATLAB plug-ins for PC platforms and MAC compatibility with MATLAB Plug ins.

Optional Software Module

- Synchronised data collection
- Manual & automatic tracking

APPLICATIONS

Research , Development and Test

Production Line Diagnostics

Range, Aerospace and Ballistics

Mechanical Component Test

Particle Image Velocimetry (PIV)

Flexible recording options allow the user to capture pre-selected numbers of frames before and/or after receiving a trigger or employ a double exposure mode, which, with a 100 nano-second interframe time, is perfect for motion analysis on objects moving at very high speeds. Memory may be divided into multiple sessions with or without automatic download to assure no event is missed.



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Performance Specifications

Sensor Array
Max frames at full res.
Pixel size
Bit depth (sensor ADC)
Sensor Dynamic Range
Image bit depth
Memory
Configurable binning
Shutter
Trigger
Synchronisation
Lens Mount
Camera Size
Camera Weight
Cable
Multiple Camera Control
Operating System
Tripod Mount

1280 x 1024 pixels
1,000
12µm
10-bit
59dB
8 bit monochrome or 24 bit colour
4GB
1x1, 2x2, 3x3, 4x4
Global, 1 microsecond minimum exposure
Software or BNC: 3.3v CMOS edge high, edge low, switch closure
BNC, 3.3v CMOS
C-mount
95mm x 95mm x 162mm
1.9Kg
Standard USB2.0 to 5m, 15m with optional repeater
Multiple cameras may be networked via USB hub
Windows 2000, XP, Mac OS X
Standard 1/4-20 photo mounts
Note: Specs are subject to change at any time



Sample Frame Rates*

Vertical Resolution
1024
768
512
256
128
64
32
16

Max horizontal resolution = 1280
1040
>1300
2000
4000
8000
16,000
32,000
64,000

*Horizontal resolution does not affect frame rate performance. All HS cameras can record at any frame rate at full horizontal resolution

Accessories
HS Timing Hub
USB repeater

USB digital interface, integrated control software with 8 outputs, 2 inputs
For use up to 15m



For More Information
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