

Imager *HS* 2M

digital high speed 12 bit CMOS
camera



Flexible Resolution/Framerate

The **Imager HS 2M** is a high sensitivity, high resolution digital camera used in LaVision FlowMaster high speed PIV systems. The camera comes with an advanced CMOS sensor and allows frame rates up to 5469 Hz at full resolution of 1400 x 1050 pixels and 7039 Hz at a reduced area of interest of 1k x 1k.

A PIV mode is included to enable very short interframe times.

General System Specifications:

Resolution	1400 x 1050 pixel
Rate	5469 Hz @ full resolution (up to 7039 Hz with 1000 x 1000 pixel resolution)
Min. Interframe Time	3.15 μ s
Pixel Size	11 μ m x 11 μ m
Sensor format	15.4 x 11.6 mm ²
Dynamic range A/D	12 bit
Memory	9, 18 or 36 GByte
Interface	CamLink
Dimensions	160 mm x 196 mm x 282 mm (W x H x L)
Weight	8.1 kg
Operating temperature	5 ... 40°C
Power requirements	90 V-260 V AC optional DC operation 12 V DC
Lens mount	F-mount

Frame Rate [fps]	Resolution Max [Pixel]		Record Time on 36 GB memory [s]	Images
	H	V		
5 469	1400	1050	6.2	33 943
8 226	1280	720	6.4	52 839
7 039	1000	1000	6.9	48 497
12 841	800	600	7.7	98 491
17 985	640	480	8.8	157 958
46 746	320	200	14.0	653 411

Table of frame rate examples. Other rates/ resolutions can be selected.

Highest flexibility for frame rate selection via DaVis/ HighSpeed Controller.



LA VISION

WE COUNT ON PHOTONS

Control

- state-of-the-art PC, DaVis, HighSpeed Controller
- Windows 7 (64 bit)
- multi camera synchronization
- synchronization to external events and rates
- synchronization of other devices (e. g. lasers, IRO)

Software

- ▶ **Acquisition and visualization software** DaVis (64 bit)
- ▶ **High speed imaging package** based on DaVis
- ▶ live image display for online adjustments
- ▶ unambiguous recording and storage of frame 1 and frame 2 for PIV
- ▶ sequence trigger of first, last or random frame
- ▶ loop recording
- ▶ start or stop recording upon mouse, key or trigger
- ▶ dark image subtraction, black level calibration
- ▶ quick movie preview from camera memory
- ▶ storage of selected frames into a set
- ▶ movie player of sets
- ▶ experiment manager for data handling of sets
- ▶ batch processing on sets of recorded frames

Ordering Information

Part number	Description
1102254	Imager <i>HS</i> 2M camera, 9 GB
1102255	Imager <i>HS</i> 2M camera, 18 GB
1102256	Imager <i>HS</i> 2M camera, 36 GB
1108217	CamLink framegrabber to connect up to two cameras

Data provided by LaVision are believed to be true. However, no responsibility is assumed for possible inaccuracies or omissions. All data are subject to change without notice.

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