

MEMRECAM HX-1

High Speed Camera System

2560 x 1920 up to 2,000 frames per second (fps)
Max frame rate 1,300,000 fps



Memrecam HX-1 Features

CMOS Sensor

2560 X 1920 - all Active Pixels

Bit Depth

12/10/8-bit (selectable)

Adjustable Electronic Shutter

down to 300ns

HD-Mag Option

High Density, non-volatile, memory magazine.
Record directly from the HX1 for more than 26
minutes in full HD (1080p) resolution at 250fps.

Adjustable Frame Rates

in 1fps steps

Adjustable Resolution

Variable Framing Profile

a variety of frame rates in one recording sequence

Multiple Trigger Modes

Burst, multi-trigger, restart-trigger and image trigger

Sync

High resolution timing and sync to < 50ns

Straddle Mode

Inter-frame time for PIV applications = 125ns

Memory Segmentation

Dual Segment Recording

Simultaneously record to two separate memory
segments at two different recording speeds

High Light Sensitivity

ISO 2500 (colour) ISO 10,000 (mono)

Ultra High Sensitivity in Super Pixel Mode (2x2)

ISO 10,000 (colour) ISO 40,000 (mono)

Sealed Core

protects against dust, sand, dirt, etc. for use in dirty
environments

Auto Exposure Control

Automatic Temperature Calibration

Ultra-Fast Gig-E Interface with DataLock

Fast Download

to USB 2.0 HDD

Continuous Live Video Output

Stand alone control

no PC required

Memory Backup Battery

Dynamic Range Expansion Shutter

IRIG-B Capture & Sync with Phase Shift

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High Speed Camera System



Frame Rate	Available Resolution (examples)		Record Time Sec (8 bit)			
	FPS	Hor.	Vert.	16GB	32GB	64GB
100	2560	1920	34.51	69.02	138.04	276.08
250	2560	1920	13.80	27.60	55.20	110.40
500	2560	1920	6.90	13.80	27.60	55.20
1,000	2560	1920	3.45	6.90	13.80	27.60
2,000	2560	1920	1.72	3.44	6.88	13.76
2,500	2560	1536	1.72	3.44	6.88	13.76
3,000	2048	1584	1.74	3.48	6.96	13.92
4,000	1920	1256	1.75	3.50	7.00	14.00
4,500	1920	1120	1.75	3.50	7.00	14.00
5,000	1664	1152	1.77	3.54	7.08	14.16
6,000	1536	1032	1.78	3.56	7.12	14.24
7,000	1280	1024	1.85	3.70	7.40	14.80
7,500	1280	984	1.79	3.58	7.16	14.32
8,000	1280	920	1.80	3.60	7.20	14.40
10,000	1280	720	1.84	3.68	7.36	14.72
15,000	896	672	1.87	3.74	7.48	14.96
20,000	768	576	1.91	3.82	7.64	15.28
25,000	640	536	1.97	3.94	7.88	15.76
30,000	640	448	1.97	3.94	7.88	15.76
40,000	512	408	2.03	4.06	8.12	16.24
50,000	512	320	2.07	4.14	8.28	16.56
75,000	384	272	2.16	4.32	8.64	17.28
100,000	384	200	2.20	4.40	8.80	17.60
200,000	384	88	2.50	5.00	10.00	20.00
300,000	320	64	2.76	5.52	11.04	22.08
600,000	320	24	3.68	7.36	14.72	29.44
800,000	320	16	4.14	8.28	16.56	33.12
1,000,000	320	8	6.63	13.26	26.52	53.04
1,300,000	320	8	5.10	10.20	20.40	40.80

The above are some common format examples

* Note: Recording Time Depends on Memory Configuration, Resolution, Frame Rate and Image Bit Depth.

Recording Time (seconds) = [(Memory Configuration X 1024 X 1,000,000) / (Bytes/Frame)] / (Frames/Second)

Bytes/Frame= (Horizontal pixels X Vertical Pixels X Bit Depth/8)



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