

MEMRECAM HX-3

High Speed Camera System

The MEMRECAM HX series: the world's most versatile family of high speed camera systems!

MEMRECAM HX-3 FEATURES

CMOS Sensor: 2560 X 1920—
all Active Pixels

Bit Depth: 12/10/8-bit
(customer selectable)

Electronic Shutter:
OPEN to $<1\mu\text{sec}$

Variable Framing Profile:
Test using a variety of frame
rates, sequentially or in parallel.

Versatile Recording: Burst,
multi-trigger, restart-trigger and
image trigger.

A-EST Mode: High resolution
timing and sync system to
 < 50 nanoseconds.

Straddle Mode:
Inter-frame time for
PIV applications equals
125 nanoseconds.

Dual Segment Recording:
Simultaneously record to two
distinct memory segments at two
different imaging speeds.

Ultra-High Light Sensitivity

Ruggedized for Range Use



nac's MEMRECAM HX-3 offers an astounding 5 Mega Pixel resolution at up to 2,000 fps, Full HD resolution at up to 4,670 fps, 1 Mega Pixel resolution at up to 9,220 fps, and so much more! The HX-3 gives the user the best possible solutions: the highest resolutions available; the highest light sensitivity available; and ultra fast imaging.

The HX-3 is literally two cameras in one!

*When it comes to reliable, high-quality, high-speed camera systems,
make the proven choice with nac and you'll see the visible difference!*

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MEMRECAM HX-3 High Resolution Mode		
Max Res (pixels)	2560 X 1920	
Optical Format	35.20 mm	
fps @ Max Res	2,000	
	Mono	Color
ISO Rating	10,000	2,500

MEMRECAM HX-3 High Speed Mode		
Max Res (pixels)	1280 X 960	
Optical Format	35.20 mm	
fps @ Max Res	7,690	
	Mono	Color
ISO Rating	40,000	10,000

Memory Option	16GB, 32GB, 64GB
Maximum fps	1,300,000

Imaging Formats	Max fps @ Format
High Def: 16 X 9	
1920 X 1080	4,670
1280 X 720	10,230
Other Formats	
4 Mega Pixel	2,400
2 Mega Pixel	4,740
1 Mega Pixel	9,220
XGA (1024 X 768)	11,780
768 X 576	20,230
VGA (640 X 480)	28,310
512 X 512	32,410
512 X 384	43,000
320 X 320	74,340
320 X 240	105,800
320 X 192	130,700
320 X 96	246,880
320 X 48	444,400
320 X 24	740,660

* 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) / (Resolution/Frame)] / (Frames/Second)
 Resolution/Frame (Bytes) = (Horizontal pixels X Vertical Pixels X Bit Depth/8)

nac Image Technology
 MEMRECAM High Speed Camera Systems also Feature:

- Auto Exposure Control
- Adjustable Frame Rates
- Automatic Temperature Calibration
- Continuously Adjustable Resolution
- Ultra-Fast Gig-E Interface with DataLock
- Fast Download to USB 2.0 HDD
- Continuous Live Video Output
- Remote & Local Control—(no PC required)
- Memory Backup
- DRES—Dynamic Range Expansion Shutter
- Multiple Trigger Modes
- Memory Segmentation
- External Sync Recording
- IRIG-B Capture & Sync with Phase Shift
- Compact, Rugged Design - 5.5kg
110W x 140H x 333D(mm)

Visit our website at
www.nacinc.com

Please Note: Specifications described above are preliminary and subject to change.



Contact Us in the Americas:

nac Image Technology
 543 Country Club Drive, # B-534
 Simi Valley, CA 93065
 Tel: (800) 969-2711
 E-mail: sales@nacinc.com

Contact Us in Europe:

nac Deutschland GmbH
 Hedelfingerstr. 54-70
 70327 Stuttgart, Germany
 Tel: +49(0)711 2201 885
 E-mail: rwestphal@nacinc.de

Contact Us in Asia:

nac Image Technology Inc.
 2-11-3 Kita-Aoyama, Minato-ku
 Tokyo 107-0061 Japan
 Tel: +81 3 3796 7903
 Email: nacinternational@camnac.co.jp

Memrecam HX1/HX3 Frame Rate/Resolution Table

2500 ISO Color

Frame Rate	Maximum Resolution		Record Time sec				
	FPS	Hor.	Vert.	16GB	32GB	64GB	128GB
100	2560	1920		34.18	68.36	136.72	273.44
250	2560	1920		13.67	27.34	54.69	109.38
500	2560	1920		6.84	13.67	27.34	54.69
1,000	2560	1920		3.42	6.84	13.67	27.34
2,000	2560	1920		1.71	3.42	6.84	13.67
2,500	2560	1552		1.69	3.38	6.77	13.53
3,000	2048	1600		1.71	3.42	6.84	13.67
4,000	1920	1280		1.71	3.42	6.84	13.67
4,500	1920	1136		1.71	3.42	6.85	13.69
5,000	1664	1168		1.73	3.46	6.92	13.83
6,000	1536	1056		1.73	3.45	6.90	13.81
7,000	1280	1024		1.83	3.66	7.32	14.65
7,500	1280	992		1.76	3.53	7.06	14.11
8,000	1280	928		1.77	3.54	7.07	14.14
10,000	1280	720		1.82	3.65	7.29	14.58
15,000	896	608		2.06	4.11	8.22	16.45
20,000	768	592		1.85	3.70	7.39	14.78
25,000	640	560		1.88	3.75	7.50	15.00
30,000	640	448		1.95	3.91	7.81	15.63
40,000	512	408		2.01	4.02	8.04	16.08
50,000	512	320		2.05	4.10	8.20	16.41
75,000	384	272		2.14	4.29	8.58	17.16
100,000	384	200		2.19	4.38	8.75	17.50
200,000	320	104		2.52	5.05	10.10	20.19
300,000	320	64		2.73	5.47	10.94	21.88
600,000	320	24		3.65	7.29	14.58	29.17
800,000	320	16		4.10	8.20	16.41	32.81
952,000	320	8		6.89	13.79	27.57	55.15
1,300,000	320	8		5.05	10.10	20.19	40.38

Adjustable 64 x 8 increments

subject to change 2/14