

# MEMRECAM HX-3

High Speed Camera System

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



## Memrecam HX-3 Features

### CMOS Sensor

2560 X 1920 - all Active Pixels

### Bit Depth

12/10/8-bit (selectable)

### Adjustable Electronic Shutter

down to 300ns

### 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

### Compact Design

5.5kg -110W x 140H x 333D(mm)



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## High Speed Camera System



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

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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