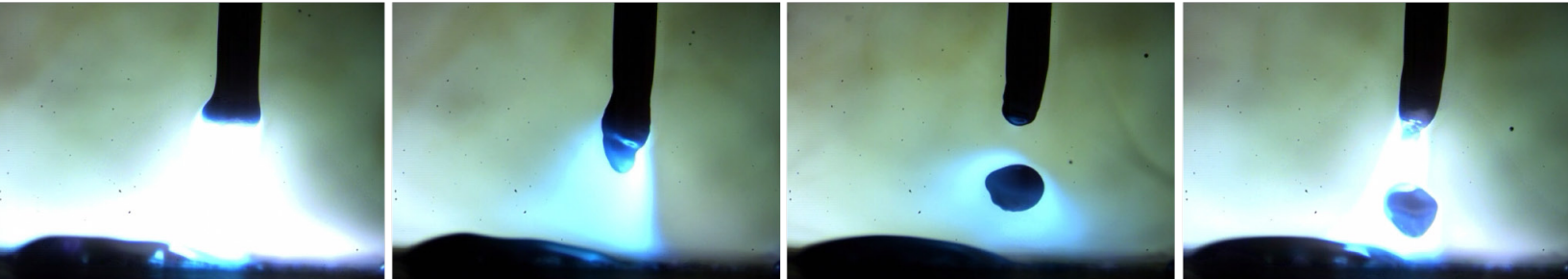
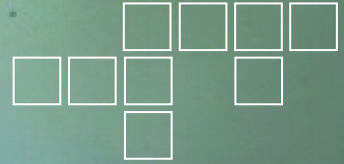


FASTCAM Mini UX100

COMPACT HIGH-SPEED CAMERA SYSTEM



Real Power in a Compact Package

The Photron FASTCAM Mini UX100 high speed camera packs a lot of performance in such a small package, providing 1,280 by 1,024 pixel resolution to 4,000 frames per second (fps) and reduced resolution operation all the way to 800,000 fps, with 1,280(H) by 720 (V), equivalent to 720 HD video resolution, to 6,400 fps. This makes the UX100 a small and lightweight camera ideally suited for applications as varied as fluidics, life sciences or ballistic testing. A global shutter provides blur free imagery with a minimum shutter speed of $1\mu\text{s}$ with 12-bit pixel depth (36-bit for the color version) from the CMOS pixels $10\mu\text{m}$ square pixel providing an ISO 12232 Ssat certified light sensitivity of 10,000 ISO for the monochrome version.



Target applications include:

- Biomechanics
- Life sciences
- Fluid dynamics
- Off board automotive safety testing
- Defense and aerospace research
- Material science

Benefits

- Frame Rate Performance examples:
 - 4,000 fps at 1,280 x 1,024 pixel resolution
 - 5,000 fps at 1,280 x 1,000 pixel resolution
 - 6,250 fps at 1,280 x 800 pixel resolution
 - 10,000 fps at 896 x 488 pixel resolution
 - 25,000 fps at 1,280 x 200 pixel resolution
 - 200,000 fps at 1,280 x 24 pixel resolution
 - 800,000 fps at 640 x 8 pixel resolution
- Self-contained, compact and lightweight camera 120mm (4.7")H x 120mm (4.7")W x 90mm (3.6")D and 1.5Kg
- Sensitivity: ISO 12232 Ssat standard
 - ISO 10,000 monochrome
 - ISO 5,000 color
- Compatibility with 1 inch C mount and Nikon G type lenses
- 4GB, 8GB and 16GB memory options and high performance GigaBit Ethernet interface to PC



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Specifications: Partial Frame Rate / Recording Duration Table

| FRAME RATE (fps) | MAXIMUM RESOLUTION | | RECORD DURATION (12-BIT) | | | | | |
|---------------------|--------------------|-------|--------------------------|----------|------|---------|-----------|-----------|
| | | | TIME (Sec.) | | | FRAMES | | |
| | | | Horizontal | Vertical | 4GB | 8GB | 16GB | 4GB |
| 1,000 | 1,280 | 1,024 | 2.18 | 4.37 | 8.73 | 2,180 | 4,365 | 8,734 |
| 2,000 | 1,280 | 1,024 | 1.09 | 2.18 | 4.37 | 2,180 | 4,365 | 8,734 |
| 4,000 | 1,280 | 1,024 | 0.55 | 1.09 | 2.18 | 2,180 | 4,365 | 8,734 |
| 5,000 | 1,280 | 1,000 | 0.45 | 0.89 | 1.79 | 2,232 | 4,469 | 8,943 |
| 6,250 | 1,280 | 800 | 0.45 | 0.89 | 1.79 | 2,791 | 5,587 | 11,179 |
| 6,400 | 1,280 | 720 | 0.48 | 0.97 | 1.94 | 3,101 | 6,208 | 12,421 |
| 8,000 | 1,280 | 616 | 0.45 | 0.91 | 1.81 | 3,624 | 7,256 | 14,519 |
| 10,000 | 896 | 488 | 0.65 | 1.31 | 2.62 | 6,536 | 13,084 | 26,181 |
| 16,000 | 1,280 | 312 | 0.45 | 0.90 | 1.79 | 7,156 | 14,326 | 28,665 |
| 20,000 | 1,280 | 248 | 0.45 | 0.90 | 1.80 | 9,003 | 18,023 | 36,063 |
| 40,000 | 1,280 | 120 | 0.47 | 0.93 | 1.86 | 18,607 | 37,248 | 74,531 |
| 80,000 | 1,280 | 56 | 0.50 | 1.00 | 2.00 | 39,872 | 79,818 | 159,709 |
| 100,000 | 1,280 | 32 | 0.70 | 1.40 | 2.79 | 69,777 | 139,682 | 279,492 |
| 200,000 | 1,280 | 24 | 0.47 | 0.93 | 1.86 | 93,036 | 186,242 | 372,656 |
| 800,000 | 640 | 8 | 0.70 | 1.40 | 2.79 | 558,216 | 1,117,457 | 2,235,938 |

| | | | |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Sensor | 1,280 x 1,024 pixels, 10um pixel size, 12-bit ADC (Bayer system color, 36 bit single sensor) | Trigger Modes | Start, Center, End, Manual, Random |
| Shutter | Global electronic shutter from 20ms to 1 μ s dependent on frame rate | Saved Image Formats | JPEG, AVI, TIFF, BMP, RAW, PNG, MOV and FTIF. Images can be saved with or without image or comment data |
| Memory | 4GB (2,180 frames @ maximum resolution) or 8GB (4,365 frames @ maximum resolution) memory options 16GB (8,734 frames @ maximum resolution) memory options | Data Display | Frame Rate, Shutter Speed, Trigger Mode, Date or Time, Status (Playback/Record), Real Time, Frame Count and Resolution |
| Camera Control | High speed Gigabit Ethernet | Cooling | Actively cooled using external fans |
| Low Light Mode | Low light mode drops the frame rate and shutter time to their maximum values, while maintaining other set parameters, to enable users to position and focus the camera | Operating Temperature | 0 - 40 degrees (32 - 104 degree F) |
| Triggering | Selectable positive or negative TTL 5Vp-p or switch closure | Mounting | 4 x1/4-20UNC |
| Timing | Internal clock or external source | Dimensions | 120mm (4.7")H x 120mm (4.7")W x 90mm (3.6")D |
| I/O | Input: Trigger (TTL/Switch), Sync, Ready, Event, IRIG Output: Trigger, Sync, Ready, Rec, Expose | Weight | 1.5 kg (3.4 lbs) |
| Phase Lock | Enables cameras to be synchronized precisely together or to a master camera or external source. | Power Requirements | 100V-240V AC 40W, 50-60Hz DC operation 22-32 VDC, 40VA |

Specifications subject to change without notice

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