

Monochrome High Speed Camera

(Brand Name Or Equal: Photron AX-200 FASTCAM Mini AX200 M16 or Equal)

Camera Specifications:

The camera shall meet or exceed the following specifications:

- The camera shall be monochrome (not color)
- The camera shall have an ISO rating, a measure of light sensitivity, of $\geq 25,000$.
- The camera shall employ a 12-bit or higher dynamic range
- The camera shall have a pixel size at least $20\ \mu\text{m}$ but not greater than $30\ \mu\text{m}$.
- The camera shall have a full resolution of 1024×1024 pixels or greater
- The cameras shall be capable of acquiring full resolution images at frame rates of 6400 frames per second (fps) or higher
- The camera shall be able to operate at reduced resolution to increase framing rates
- The camera shall have a minimum exposure time of $1.05\ \mu\text{s}$ or less
- The camera shall have 16 GB or greater memory.
- The camera shall employ enough memory to acquire at least 10,000 frames at full resolution
- At reduced resolution, the camera shall be capable of acquiring images with a resolution of 128×96 pixels or greater at rates of 200,000 fps or higher
- The camera shall be able to operate at frame rates of 800,000 or higher (at reduced resolution)
- The camera shall integrate with a PC via a GIGABIT Ethernet
- The camera shall be capable of being externally triggered
- The cameras shall be supplied with both C and F-mount plates.
- The camera shall have dimensions of the following or smaller: 120mm (4.7") H \times 120mm (4.7") W \times 94mm (3.7") D.
- The camera shall include software to control the camera operation as well as a Software Developers Kit (SDK) for developing custom software control solutions (FASTCAM PFV NI DAQ Plug-in Software or Equivalent)
- The camera shall include software to for point tracking for velocity and acceleration measurement (FASTCAM PFA Plug-in Software or Equivalent)
- The camera shall have a 2 year warrantee.