

# ***FASTCAM MC-2***

## ***For production line fault finding.***

There is increasing demand to drive down cost and increase production rates in order for businesses to remain competitive. This results in tremendous pressure on production managers and engineers to run production lines faster and for longer. As a result higher rates of product rejection and costly down time are common. High speed imaging systems have become an essential tool for identifying faults and helping diagnose subtle misalignments in tooling. Simply slowing down production to a speed where motion can be followed by the human eye is not an option as most faults are only present at full operating speeds. Most high speed cameras have been designed for the research environment and are bulky and sometimes fragile, have poor light sensitivity necessitating powerful illumination and complex operating software requiring a dedicated operator.

Thankfully, Photron have listened to the requirements of maintenance engineers and production line support staff and have developed the Fastcam MC-2 system to meet their needs.

The Photron Fastcam MC-2 is a fully featured high-speed system with the following benefits:

**Compact** – with a small remote camera head measuring just 35 x 35 x 35mm and weighing only 100 grams the MC-2 is easily positioned in confined spaces. A single cable supplies power and output video with the control unit. No heavy duty fixings are required.



**Dual Head** – Without compromising the compact design Photron have incorporated support for an optional second camera head. This powerful feature will permit simultaneous monitoring of different sections of the production line or two different views of the same process. This allows an engineer to monitor how a fault with one part of the process might be influencing another.

Both camera images can be synchronized and monitored simultaneously. Camera heads can be monochrome or colour.

Images from both camera can be stitched together and stored as a single AVI or a sequence of still BMP or TIFF files.

**Rugged** – The MC-2 is a similar construction to the award winning MH-4 camera system developed for on-board automotive crash testing.

**Portable** – The MC-2 can be used as a stand alone system without a computer connected when used with the optional **Control Keypad** with integrated viewfinder. To transfer video, a computer, laptop or tablet can be used.

**Sensitivity** – The large pixel size and low image noise feature of the MC-2 permits help illumination. A number of LED lights are available for higher frame rate recording.

**Performance** – A resolution of 512 x 512 pixels maintained up to a frame rate of 2,000 fps with an option to run up to 10,000 fps at a reduced resolution ensures that this system is suitable for troubleshooting both current and future production line speeds.

**Motion Blur** – Motion blur can be completely removed by employing the global electronic shutter with exposure duration as short as 6 microseconds.

**On-line monitoring** – A secondary composite video output permits a live video feed from a camera to a control room of the plant.

**Large range of lenses** – With a standard C-mount thread the camera can be used with a large range of fixed focus length or zoom lenses.

**Intuitive interface** – The software is simple to use and the camera can be operated by anyone with minimal instruction. Furthermore, the functions available to the operator can be further simplified by hiding any controls located on the software tool bar and menus.

**Automatic video capture** – The MC-2 can be programmed to capture video when it receives a signal, and once the video is saved, be ready for the next event. The event videoed may be before or after the trigger signal.

#### **Options:**

**Image Tracking** – The Image Tracking plugin allows a part or feature in the video to be tracked for position and speed.

**Data Acquisition** – The Data Acquisition plugin (with additional hardware) allows data from production line sensors to be incorporated with the high speed video.

**Memory per camera head** – 1 GByte, 2 GByte or 4 GByte of memory per camera head.

**Upgrades** – The MC-2 can be upgraded at a later date after purchase. These upgrades can be of memory capacity, frame rate or an additional camera head.

Data correct as of May 2014.

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