Q-PRI High Speed Camera

PRODUCT LEAFLET TECHNICAL SPECS APPLICATION NOTE

Q-PRI – the modular, compact high speed camera for industrial and research with an ultra-high resolution of 3MPixel

Applications

The Q-PRI is particularly suited for all applications where a compact and portable yet robust camera is essential:

- Industrial applications such as the installation and setting up of machinery and assembly lines as well as the subsequent trouble-shooting.
- Research applications in mechanical, electrical and process engineering, material stress testing, medical research, sports analysis, etc.

Why the Q-PRI?

- Ultra-high resolution of 3MPixel at 500fps
- Robust design – designed for many years of industrial handling and harsh environments (extruded aluminum housing with heavy duty connectors)
- Simple to use – the camera control software is easy to use, even for novices and occasional users; operator training is not necessary – yet provides full control of the camera settings and functions
- Autonomous operation – the built-in battery allows you to use the camera without external power cables and power supplies. Ideal for troubleshooting appliances on the factory floor
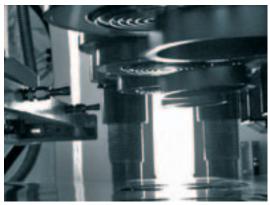
Unique features

High Sensitivity – the Q-PRI offers a light sensitivity greater than in previous cameras models. In many applications and settings, the camera delivers well-lit images without extra illumination, while in others only minimal extra light is necessary.

High light sensitivity also allows for crisper images as motion Blur, associated with fast moving objects can be substantially reduced by a shorter shutter time, and depth of field can be extended by stopping down the lens – both parameters are essential to create better, more informative images

Modular concept – you don't have to buy an off-the-shelf product which might or might not suit your application. Have your Q-PRI configured for a perfect match by choosing from an extensive range of options and extensions

Selectable ROI – the customer can select the most suitable image format (ROI, region of interest) almost without limitations, for best camera performance and image quality

Versions

Q-PRI cameras are available in the following versions:

- **Q-PRI:** basic model with 500 fps @ 1696 x 171 pixels, mono or color
- **Q-PRI + options:** basic Q-PRI plus a range of options to extend the cameras performance, i.e max. frame rate of 100'000 fps (at reduced resolution)

Accessories

Every Q-PRI comes complete with an 'accessory kit', which includes:

- AOS Imaging Studio Light software
- Power supply and cable
- Data cable (5 m)

Users have to supply:

- Control PC (see 'technical specs' for minimal PC specifications)
- Lens (c-mount, 1" image size)

Accessories like lenses, lights, tripods, cases etc. can be purchased from AOS

Options and extensions

The Q-PRI is a modular camera in which performance and functions can be extended with a range of software-based 'options', i.e. full resolution, higher frame rates, multi-camera operations etc.
'Options' can be purchased together with a new camera, or at any time later as an 'upgrade'. The upgrade file will be sent electronically and can be installed easily by the operator within minutes. No need to return the camera to the manufacturer.

In addition to the 'options', several hardware based 'extensions' are also available, i.e.
- CF interface
- Video output.

These extensions have to be purchased together with the camera.

Technical key specifications

Sensor (type, resolution)	Progressive CMOS, 1696 x 1710 pixels
Shutter type	Global electronic shutter
Shutter exposure times	2 µsec to 1/frame rate
Sensor size	13.56 x 13.68 mm, 8 µm pixel size
Light sensitivity	ISO 2000 (monochrome), ISO 1000 (color)
Frame rate at full resolution	500 fps @ 1696 x 1710 pixels
Max. frame rate	100'000 fps (with options)
Capacity Image memory	1.3 GB (standard), 2.6, 5.2, 10.4 GB (optional)
Built-in battery, capacity	NiMH, 30 minutes
Data Interface	Gigabit Ethernet (1'000 Mb/s)
Size, weight	72 x 72 x 122 mm, 900 gr

Complete technical specifications of our products are available as a separate document ('technical specs') from your AOS partner, or as a download from our webpage www.aostechnologies.com/downloads

Mechanical engineering on an eccentric press

Industrial troubleshooting on a bottling line

Your local AOS partner:

Specifications are subject to change without prior notice – v08.2011

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