



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:

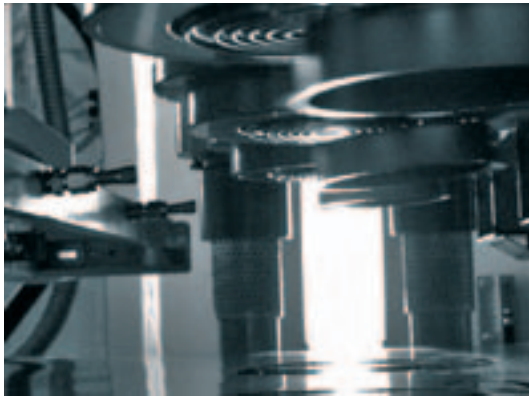
- Industrial applications such as the installation and setting up of machinery and assembly lines as well as the subsequent troubleshooting.
- Research applications in mechanical, electrical and process engineering, material stress testing, medical research, sports analysis, etc.

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



Mechanical engineering on an eccentric press



Industrial troubleshooting on a bottling line


Your local AOS partner:

Specifications are subject to change without prior notice – v08.2012



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Technical key specifications

Image Sensor	Progressive CMOS, 1696 x 1710 pixels, mono or color
Sensor size (@ full resolution)	13.56 x 13.68 mm, 8 µm pixel size
Light sensitivity	ISO 2000 (monochrome), ISO 1000 (color)
Dynamic range	8 bit, adjustable by user
Gain control	User selectable, available HDR mode
Frame rate at full resolution	500 fps @ 1696 x 1710 pixels
Typical fps/resolution settings	1300 x 1060 @ up to 1'000fps 900 x 700 @ up to 2'000fps 512 x 512 @ up to 4'200fps
Max. frame rate	100'000 fps (with options)
Shutter type	Global electronic shutter
Shutter exposure times	2 µsec to 1/frame rate
Image memory	Built-in DRAM, circular buffer
Sequence length	0.9 sec @ 1696 x 1710 / 500fps (1.3 GB memory) 1.8 sec @ 1696 x 1710 / 500fps (2.6 GB memory) 3.6 sec @ 1696 x 1710 / 500fps (5.2 GB memory) 7.2 sec @ 1696 x 1710 / 500fps (10.4 GB memory)
Data Interface	Gigabit Ethernet (1'000 Mb/s) RJ45, other connectors on request
Frame synchronisation Multi-camera operation	possible with 'option 5' possible with 'option 5'
Memory Interface	Built-in CF interface (optional), accepting CF cards for non-volatile data storage
Power supply	12 VDC (9...16VDC), other voltage ratings available on request
Power consumption	14 W (w/o data link), 18 W (with data link)
Battery	Built-in, rechargeable NiMH battery allowing up to 30 minutes camera operation. Extended battery pack with 3 hour capacity available on request
Video Interface (optional)	SDI (digital) or PAL/NTSC (analog)
24 V Interface (optional)	Voltage range (24 – 36 V DC)
Operating temperature Storage temperature	0 ... +45 °C (32 ... 113 °F) -40 ... +70 °C (-40 ... 158 °F)
Size, weight (standard model)	72 x 712x 122 mm, 1100 gr
I/O Connector	LEMO Type: FGG.2B.314.CLAD82Z ODU Type: S22LOC-P14MFGO-8200
1 GND (-) 2 V In (In) 3 Remote On (In) 4 Synch In (In) * optional 5 Synch Out (Out) * optional 6 Set-to-Rec (In) 7 Trigger (In) 8 Strobe (Out) 9 Armed (Out) 10 Triggered (Out) 11 Event Marker 1 (In) 12 Event Marker 2 (In) * optional 13 Event Marker 3 (In) * optional 14 Event Marker 4 (In) * optional	 <p>different pinout configuration on request</p>
CE	In compliance with relevant standards

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