

**NEW:**  
- 800x600 up to 1'000fps  
- optional 24...36V supply voltage



PRODUCT LEAFLET

APPLICATION NOTE

## S-PRI F1 – the compact, light sensitive high speed camera for industrial and research applications in a very competitive price/performance package

### Applications

The S-PRI F1 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 S-PRI F1?

- Image resolution and performance – 800 x 600 pixels up to 1'000fps - provides you with excellent image quality and a frame rate to capture most industrial processes
- Robust design – extruded aluminium housing for exceptional protection against rough industrial ambient conditions (shocks, vibration, dust, electromagnetic noise), making the camera extra reliable and offers an extended product life time. Heavy duty industrial 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.

### Unique features

- **Compact** - 'all-in-one camera' with built-in image memory and battery.
- **Fast** - record up to 1'000 fps with a high image resolution of 800 x 600 pixels to see fine details.
- **Standard data interface** – the S-PRI F1 connects via standard Gigabit Ethernet ('GigE') data interface to the control PC. No need for dedicated or special camera interfaces and -cables.
- **High Sensitivity** – the S-PRI F1 offers a high light sensitivity, well suited for mobile applications. In many applications and settings, the camera delivers well-lit images without extra illumination, while in others only minimal extra light is necessary.
- **Powerful yet simple to operate control software** - the S-PRI F1 includes the 'AIS - AOS Imaging Studio' control software. Despite many features and functions, the AIS is simple to operate, even for novices.



## Technical key specifications

<b>Image Sensor</b>	Progressive CMOS, 800 x 600 pixels, mono or color
<b>Sensor size (@ full resolution)</b>	11.2 x 8.4 mm, 14 µm pixel size
<b>Light sensitivity</b>	ISO 3200 (monochrome), ISO 1600 (color)
<b>Dynamic range</b>	8 bit
<b>Frame rate at full resolution</b>	up to 1'000 fps @ 800 x 600 pixels
<b>Typical fps/resolution settings</b>	800 x 600 @ up to 1'000fps 640 x 480 @ up to 1'000fps
<b>Max. frame rate</b>	1'000 fps
<b>Shutter type</b>	Global electronic shutter
<b>Shutter exposure times</b>	4 µsec to 1/frame rate
<b>Image memory</b>	Built-in DRAM, circular buffer
<b>Sequence length (typical)</b>	2.7 sec @ 800 x 600 / 1'000fps (1.3 GB memory) 5.4 sec @ 800 x 600 / 1'000fps (2.6 GB memory) 10.8 sec @ 800 x 600 / 1'000fps (5.2 GB memory) 21.6 sec @ 800 x 600 / 1'000fps (10.4 GB memory)  4.3 sec @ 640 x 480 / 1'000fps (1.3 GB memory) 8.6 sec @ 640 x 480 / 1'000fps (2.6 GB memory) 17.3 sec @ 640 x 480 / 1'000fps (5.2 GB memory) 34.6 sec @ 640 x 480 / 1'000fps (10.4 GB memory)
<b>Data Interface</b>	Gigabit Ethernet (1'000 Mb/s) RJ45, other connectors on request
<b>Frame synchronisation</b>	n/a
<b>Multi-camera operation</b>	n/a
<b>Power supply</b>	12 VDC (9...16VDC), other voltage ratings available on request
<b>24 V Interface (optional)</b>	Voltage range (24 – 36 V DC)
<b>Power consumption</b>	15 W (w/o data link), 18 W (with data link)
<b>Battery</b>	Built-in, rechargeable NiMH battery allowing up to 30 minutes camera operation.
<b>Temp range, storage</b>	-40...+70 °C (-40...+158 °F)
<b>Temp range, operation</b>	0...+45 °C (32...113 °F)
<b>Size, weight (standard model)</b>	72 x 72 x 122 mm, 900 gr
<b>I/O Connector</b>	<b>LEMO</b> Type: FGG.2B.314.CLAD82Z <b>ODU</b> Type: S22LOC-P14MFGO-8200
<b>CE</b>	In compliance with relevant standards



Mechanical engineering on an eccentric press



Industrial troubleshooting on a bottling line

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Specifications are subject to change without prior notice – v06.2012



AOS Technologies AG, Taefernstrasse 20,  
CH-5405 Baden-Daettwil  
Tel. +41 (56) 483 3488, Fax + 41 (56) 483 3489  
info@aostechnologies.com  
www.aostechnologies.com