



Now featuring:

- 900 x 700 px @ 1,000fps
- free choice of ROI
- max. 16,500fps (opt. 3)
- MPEG4 image format (opt.6)



PRODUCT LEAFLET

APPLICATION NOTE

S-PRI^{plus} – the modular, compact high speed camera for industrial and research applications. More light sensitive than ever.

Applications

The S-PRI^{plus} 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^{plus}?

- Perfectly balanced performance – 800 x 600 @ 1,250fps resp. 900 x 700 @ 1,000fps provides you with excellent image quality and a frame rate to capture most industrial processes
- 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

- **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 900 x 700 pixels to see fine details.
- **Standard data interface** – the S-PRI plus 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 plus 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 plus includes the 'AIS - AOS Imaging Studio' control software. Despite many features and functions, the AIS is simple to operate, even for novices.



Mechanical engineering on an eccentric press



Industrial troubleshooting on a bottling line


Your local AOS partner:

Specifications are subject to change without prior notice – v07.2012



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Technical key specifications

Image Sensor	Progressive CMOS, 900 x 700 pixels, mono or color (1280 x 1024 pixels with option 2)
Sensor size (@ full resolution)	12.6 x 9.8 mm (@ 900 x 700), 14 µm pixel size
Light sensitivity	ISO 3200 (monochrome), ISO 1600 (color)
Dynamic range	8 bit (5-, 8- or 10 bit with option 1)
Frame rate at full resolution	up to 1'000 fps @ 900 x 700 pixels
Typical fps/resolution settings	800 x 600 @ up to 1'250fps 900 x 700 @ up to 1'000fps
Max. frame rate	1'250 fps (max. 16'500 fps with option 3)
Shutter type / exposure times	Global electronic shutter / 4 µsec to 1/frame rate
Image memory	Built-in DRAM, circular buffer
Sequence length (typical)	2.1 sec @ 900 x 700 / 1'000fps (1.3 GB memory) 4.2 sec @ 900 x 700 / 1'000fps (2.6 GB memory) 8.4 sec @ 900 x 700 / 1'000fps (5.2 GB memory) 16.9 sec @ 900 x 700 / 1'000fps (10.4 GB memory)
Data Interface	Gigabit Ethernet (1'000 Mb/s) RJ45, other connectors on request
Frame synchronisation	possible with 'option 5'
Multi-camera operation	possible with 'option 5'
Power supply	12 VDC (9...16VDC),
24 V Interface (optional)	Voltage range (24 – 36 V DC)
Power consumption	15 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
Temp range, storage	-40...+70 °C (-40...+158 °F)
Temp range, operation	0 ... +45 °C (32 ... 113 °F)
Size, weight (standard model)	72 x 72 x 122 mm, 900 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	
CE	In compliance with relevant standards

Options

Option 1	Gain control (5-, 8- or 10 bit, low-, mid- or high gain)
Option 2	Full resolution (1280 x 1024)
Option 3 PRI	Extended speed (16'500 fps)
Option 4	3 additional event markers (total of 4)
Option 5	Frame synchronization, multi camera operation
Option 11	Auto Exposure
Option 12	Motion Detection