



PRODUCT LEAFLET

TECHNICAL SPECS

APPLICATION NOTE

S-VIT LS – the ruggedized, compact high speed camera for automotive safety testing and harsh industrial as well as research applications. More light sensitive than ever.

Applications

The S-VIT LS is particularly suited for all applications where a compact and portable yet robust camera is essential:

- Automotive safety testing – on-board full size crash vehicle or sled body structures where the camera is fitted into tight areas like door panels or the pedal area
- Industrial or military applications with Hi-G shocks and limited space – like eccentric presses and similar devices

Why the S-VIT LS?

- Perfectly balanced performance – 1,250 fps @ 800 x 600 provides you with excellent image quality and a frame rate suitable for a wide range of automotive test applications
- Robust design – designed for many years of rough handling in HiG-applications (milled aluminum)
- 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 S-VIT LS 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 S-VIT LS 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

S-VIT LS cameras are available in the following versions:

- **S-VIT LS:** 1,250 fps @ 800 x 600 pixels, mono or color
- **S-VIT LS + options:** basic S-VIT LS plus a range of options to extend the cameras performance to i.e. 1280 x 1024 pixel resolution, 50,000 fps frame rate
- **S-VIT LS F1:** pre-configured model with the most popular feature set at a special price

Accessories

Every S-VIT LS comes complete with an 'accessory kit', which includes:

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

Users have to supply:

- Control PC (see 'technical specs' for minimal PC specifications)
- Lens (with an image diameter suitable for the selected resolution, i.e. c-mount lens (1") for a reduced resolution of 800 x 600 pixels or a format SLR lens (35 mm format) with F-to-c-mount adapter for full resolution)

Accessories like lenses and lens cages, lights, tripods, cases etc. are available from AOS

Options and extensions

The S-VIT LS 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 and Video output. These extensions have to be purchased together with the camera.

Technical key specifications

Sensor (type, resolution)	CMOS APS Sensor, 800 x 600 pixels 1280 x 1024 pixels (with option 2)
Sensor size	800 x 600 pixels: 11.2 x 8.4 mm Full resolution: 17.92 x 14.33 mm 14 µm pixel size
Light sensitivity	ISO 3200 (monochrome), ISO 1600 (color)
Frame rate at full resolution	1,250 fps @ 800 x 600 pixels, resp. 500 fps @ 1280 x 1024 (option 2)
Max. frame rate	1,250 fps, resp. 50,000 fps (with options, at reduced resolution)
Capacity Image memory	1.3 GB (standard), 2.6, 5.2, 10.4 (optional)
Built-in battery, capacity	NiMH, 30 minutes
Data Interface	Gigabit Ethernet (1'000 Mb/s)
Shock resistance	100G for 15msec, 3 axis
Size, weight	71 x 71 x 121 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



Car crash (on board)



Car crash (off board)

Your local AOS partner:

Specifications are subject to change without prior notice – v10.2009



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