HASSELBLAD
CREATE TO INSPIRE

A5D Aerial

With its image sensor specially selected to provide the flatness required for applications such as advanced mapping, the new A5D is the ideal camera for aerial photography.

The A5D also features positive locking of both the digital capture unit and lens. This solution is designed to prevent any unintentional movement that may occur due to aircraft vibration and to ensure that camera calibration remains unchanged. The digital capture unit's single locking screw and reinforced bottom support completely eliminate play and movement during flight. The camera also features special firmware that activates the camera, closes the shutter and aperture when power is supplied. Power can be supplied to the camera via a LEMO connector which requires 12-30 VDC.

Main Features

The camera image capture interface is via 1394B FireWire 800 or straight to CF card. Special mapping solutions may also want to take advantage of the LEMO connector for synchronised triggering or connection to a flight management system.

The Hasselblad software library, which can be supplied with the A5D, enables image tagging with metadata, including the full set of exposure settings, in-lens temperature, and GPS coordinates.

The A5D can also serve as a flexible camera component for mapping systems using multiple camera units in clustered arrays that are used for delivery of unmatched detail and meets the highest professional standards for resolution and coverage. The removal of the viewfinder system and battery grip allows much closer mounting of camera units and thus a smaller pod. The A5D aerial camera supports synchronised exposures to within 20 μs of simultaneous capture in a multiple camera set-up.

Medium Format digital capture advantage

In digital photography, the advantages of medium format cameras have become even more obvious. The basic 6 × 4.5 cm design allows the A5D to use one of the largest image sensors currently available in digital photography. Consequently the sensor holds more and larger pixels, which deliver the highest possible image quality in terms of moiré-free colour rendering without gradation break-ups in even the finest lit surfaces.

A5D Aerial

An impressive lens line outperforming even the Carl Zeiss icons

The highly renowned aerial H system lens line includes 9 lenses, all with central lens shutters. Range is from 24mm to 300mm. The built-in central shutter allows shutter speeds up to 1/800s. It also improves image quality by generating extremely low camera vibration.

Digital Lens Correction and Ultra-Focus for image perfection

The A5D camera allows information from the lens and exact capture conditions to be fed to the camera processor for fine tuning, taking into account the design specifications of the lens and the optical specifications of the sensor. In this way the full H System lens program is even further enhanced, bringing a new level of sharpness and resolution. Detailed information about capture condition is also stored in the image file. This information is then used by Phocus to perform "Digital Lens Correction" (DAC), which is an automatic correction of the images based on a combination of the various parameters concerning each specific lens for each specific shot, ensuring that each image represents the best that your equipment can produce. Digital Lens Correction is available regardless if Phocus or Adobe Photoshop Lightroom is used.

Phocus for professional level workflow

Phocus provides an advanced software toolbox that has been especially designed to easily achieve optimum workflow and absolute image perfection from Hasselblad raw image files. With the A5D camera system Phocus provides:

- Uncompromising Image Quality

- Moiré Removal Technology automatically applied directly on the raw data, leaving image quality intact and eliminating the need to carry out special masking selections or other manual procedures, saving hours of tedious post-production work.

- Flexible Workflow. The Phocus GUI features easy-to-use options that allow you to customise your set-up to suit a range of different workflow situations, such as choice of import source, browsing/ comparison functions, file management, image export in a number of file formats, pre-setting of options for upcoming shoots, and much, much more.

- The extended metadata (GPS, etc), included in all Phocus images provides for accurate and detailed cataloguing and indexing, easy image management, and includes added GPS data functionality in order to allow a range of functions. Phocus links GPS data directly to Google Earth, for example, making geographic reference a snap and image storage and retrieval much easier.

- Perfect Viewing Quality. The Phocus Viewer delivers image viewing quality that matches every detail of what you will see later in Photoshop. In addition, the Phocus Viewer allows you to customise layout and composition to suit your current or desired workflow, providing a wide range of options including full view, compare, browse, horizontal, or vertical view, and so on. You can have multiple folders open simultaneously for side-by-side viewing, comparison, and selection. The improved Live Video function will now provide high frame rate in colour.

- L* colour space. The Reproduction tool will now let you select a new Hasselblad L* working space as an alternative to Hasselblad RGB.

- Built-in calibration of Eizo monitors. Use the built-in calibration tool for self calibrating Eizo monitors.

- Built-in Capture Sequencer. Control your camera from Phocus in new ways. Perform customisable bracketing sequences, self- timer, interval timer etc. directly from Phocus.

GPS Recording Flexibility

Utilising a GPS antenna attached to the FMS, all images captured are tagged with GPS coordinates, time and altitude. This data provides the key to a number of future applications involving image archiving and retrieval. One example is the direct mapping of images in Phocus software to the Google Earth application.

Technical Specifications

Hasselblad A5D-80

Sensor type	CCD, 80 Megapixels (10320 × 7752 pixels, 5.2 × 5.2 µm)
Sensor dimensions	53.7 × 40.3mm
Image size	RAW 3FR capture 85 MB on average. TIFF 8 bit: 229 MB
File format	Lossless compressed Hasselblad 3FR
Shooting mode	Single shot
Color definition	16 bit
ISO speed range	ISO 80, 100, 200, 400 and 800
Storage options	CF card type U-DMA (e.g. SanDisk extreme IV) or tethered to Mac or PC
Color management	Hasselblad Natural Colour Solution
Storage capacity	16 GB CF card holds 190 images on average
Capture rate	1.5 seconds per capture. 30 captures per minute (based on a SanDisk Extreme UDMA7 120 MB/s)
Display	3 inch TFT type, 24 bit color, 460,320 pixels
Histogram feedback	Yes
IR filter	Mounted on sensor
Acoustic feedback	Yes
Software	Phocus for Mac and Windows
Platform support	Macintosh: OS X 10.6 or later (64 bit only). Windows: Windows 7, Windows 8 (64 bit only).
Host connection type	FireWire 800 (IEEE 1394b)
View camera compatibility	Yes, Mechanical shutters controlled via flash sync. Electronic shutters can be controlled from Phocus
Operating temperature	0 - 45 ˚C / 32 - 113 ˚F
Dimensions	Body only: 100 x 100 x 151mm [W x H x D]
Weight	Body only: 1360g
Connection types	LEMO connectors for Flight Management Systems and camera synchronisation.

Camera Features

Camera type	Large sensor medium format DSLR
Lenses	Hasselblad H system lens line with integral central lens shutter
Shutter speed range	32 seconds to 1/800 second
Focusing	Autofocus locked at infinity
Power supply	LEMO connection for 12-30 VDC)

Technical Specifications

Hasselblad A5D-50c

Sensor type	CMOS, 50 Megapixels (8272 × 6200 pixels, 5.3 × 5.3 μm)
Sensor dimensions	43.8 × 32.9 mm
Image size	RAW 3FR capture 65 MB on average. TIFF 8 bit: 154 MB
File format	Lossless compressed Hasselblad 3FR
Shooting mode	Single shot
Color definition	16 bit
ISO speed range	ISO 100, 200, 400, 800, 1600, 3200 and 6400
Storage options	CF card type U-DMA (e.g. SanDisk extreme IV) or tethered to Mac or PC
Color management	Hasselblad Natural Colour Solution
Storage capacity	16 GB CF card holds 240 images on average
Capture rate	1.5 captures per second. 50 captures per minute (based on a SanDisk Extreme UDMA7 120 MB/s)
Display	3 inch TFT type, 24 bit color, 460,320 pixels
Histogram feedback	Yes
IR filter	Mounted on sensor
Acoustic feedback	Yes
Software	Phocus for Mac and Windows
Platform support	Macintosh: OS X 10.6 or later (64 bit only). Windows: Windows 7, Windows 8 (64 bit only).
Host connection type	FireWire 800 (IEEE 1394b)
Operating temperature	0 - 45 ˚C / 32 - 113 ˚F
Dimensions	Body only: 100 x 100 x 151mm [W x H x D]
Weight	Body only: 1315g
Connection types	LEMO connectors for Flight Management Systems and camera synchronisation.

Camera Features

Camera type	Large sensor medium format DSLR
Lenses	Hasselblad H system lens line with integral central lens shutter
Shutter speed range	34 minutes to 1/800 second
Focusing	Autofocus locked at infinity
Power supply	LEMO connection for 12-30 VDC)

Aerial lens range

HCD 4,5/24mm	HCD 4/28mm	HC 3.5/35mm
HC 3,5/50mm II	HC 2,8/80mm	HC 2,2/100mm
HC 3,2/150mm N	HC 4/210mm	HC 4,5/300mm