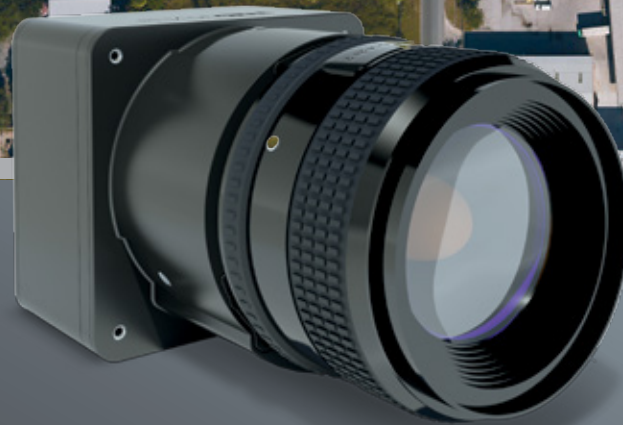


PHASE**ONE**
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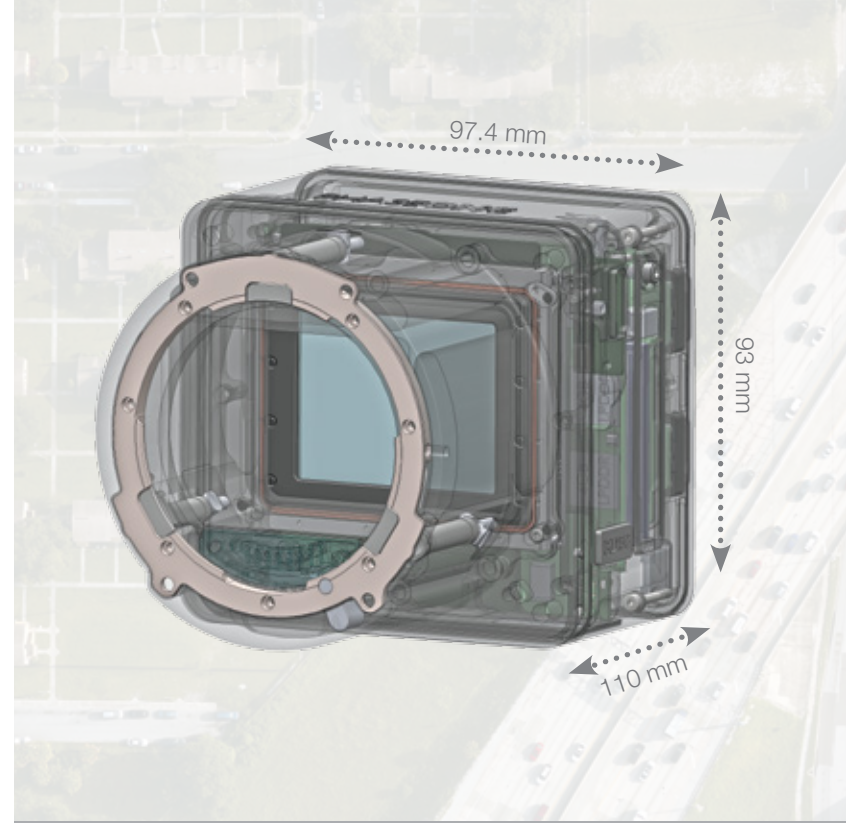
Phase One iXU 150
The world's smallest and lightest
integrated digital medium format aerial camera

Phase One iXU 150 Camera System

The Phase One iXU 150 camera is the smallest and lightest integrated digital medium format aerial camera, designed to complement the Phase One iXA camera system.

Phase One has developed a new aerial camera to answer the needs of users looking for a dependable, small, light-weight, aerial sensor. Milled from magnesium, the iXU 150 is 30% lighter than an aluminum design. Its light weight and small footprint make it perfectly suited for light aircraft integration, mapping and multiple camera configurations for oblique or wide coverage with synchronized shutter release.

- 50 MP CMOS sensor
- 8280 pixels in cross track coverage
- 68% more capture area than any DSLR
- Quality capture from ISO 100 to 6400
- Capture rate of 0.8 sec/frame
- Direct connectivity with FMS, GPS/IMU
- Files include IMU and GPS data
- USB 3.0 connection to host computer
- Optional RS-232 connectivity for camera control
- Synchronized shutter release for multiple camera installation
- Internal storage — support up to 128 GB CF card
- Low weight — 750 g, 1.25 kg with an 80 mm lens
- Small footprint
- Choice of six Schneider-Kreuznach lenses with central leaf shutters
- Industrial designed with robust camera connectivity to stabilized mounts
- Secure lens bayonet
- Choice of software options



Software Solutions for Every Scenario

Flexibility features also extend to the software that is used to drive the camera and control the processing of images. Phase One offers a choice of software solutions to enable the integration of the camera with your existing workflow.

Image Capture

iX Capture application enables the complete control over the iXU 150. It contains all the essential tools, in a single package, to control the camera's settings, capture images, monitor and evaluate image captures throughout the flight and store all images.

The **iX SDK** provides the tools for you to build your own custom application. Using the SDK, you can control the camera as with iX Capture. With the iX SDK you have a high degree of control of which parameters to apply while capturing or processing images.

Image Processing

Phase One also offers a choice of software solutions for image processing:

Capture One software is the raw converter for ultimate image quality. It contains all the essential tools, in a single package, to enable you to organize, edit, process and convert images to industry standard formats, such as TIF and JPG.

Capture One Processing Engine (COPE) provides components for you to automate image processing with your settings. Batch process files with specific parameters including lens correction and save images in industry standard formats. Using COPE, post-processing can happen in parallel to the capture process, saving valuable time on the ground.





Applications

The Phase One iXU offers reliability and versatility for users looking for a full-featured medium format aerial camera. Easily integrated into existing or new setups, the camera offers maximum connectivity with systems for:

- Mapping
- Oil & Gas pipelines monitoring
- Critical infrastructure inspection
- Power line monitoring
- Coastal surveillance
- Wind turbine blade inspection
- Disaster site monitoring and mapping
- Arctic research
- Iceberg monitoring
- Forestry, vegetation identification, agriculture crop monitoring
- Hydrometric mapping
- Asset management
- 3D modeling
- Entertainment and game market



Oblique Imaging

An iXU 150 can operate as a standalone camera, daisy chained with other cameras or integrated with a LiDAR system. The iXU 150, with its small footprint and 0.8 second per frame capture rate, is ideal for oblique photography, especially where space and weight limits demand a small integrated package. Its affordable cost makes it well suited for building a package of four or more sensors to handle the most demanding oblique photography missions.

Light Aircraft Use

When every gram in a payload counts, Phase One created what is seemingly impossible – an extremely light camera with a small footprint, built around a powerful medium format CMOS sensor. With a camera barely wider than the diameter of its lens, the iXU 150 weighs in at just 750 grams (1.25 kg with an 80 mm lens) and uses a CompactFlash card for internal image storage. The iXU 150 interfaces with FMS, GPS and IMU through an RS-232 link.

Widening Operational Hours

The CMOS technology enables you to move from ISO 100 all the way up to 6400 providing consistent quality all across the ISO range. As weather conditions deteriorate or on days when you previously were unable to capture, the iXU 150 provides the high sensitivities that can make a difference.

Near Infra-Red

The Phase One iXU 150 is offered with an optical glass over the sensor for Near Infra-Red applications. The camera is suited for a variety of agricultural or forestry applications including analyzing illicit drug growth, determining harvesting periods, monitoring crop damage caused by insects, fungus or insufficient water or nutrients in the soil.



Schneider-Kreuznach Fast Sync Lenses With Central Leaf Shutters

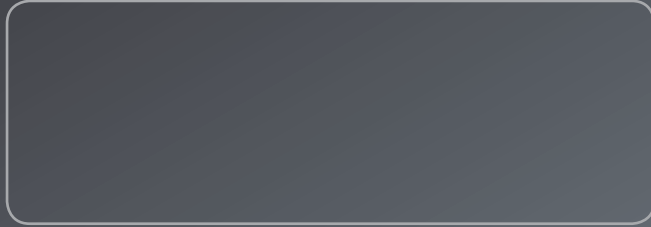
Lenses	Schneider-Kreuznach fast sync 28 mm f/4.5 Aspherical	Schneider-Kreuznach fast sync 55 mm f/2.8	Schneider-Kreuznach fast sync 80 mm f/2.8	Schneider-Kreuznach fast sync 110 mm f/2.8	Schneider-Kreuznach fast sync 150 mm f/3.5	Schneider-Kreuznach fast sync 240 mm f/4.5
Opening Angle (long side)	76.2°	43.5°	30.7°	22.6°	16.6°	10.4°
Dimensions	90 x 136 mm / 5.35 x 3.5 in	77.6 x 86.5 mm / 3 x 3.4 in	51.5 x 80.5 mm / 2.7 x 3.4 in	83.3 x 86.5 mm / 3.3 x 3.4 in	87.1 x 86.5 mm / 3.4 x 3.4 in	173.2 x 104.2 mm / 6.8 x 4.1 in
Filter thread size	Rear sheet filter / Optional LEE SW150 filter	72 mm	72 mm	72 mm	72 mm	86 mm
Weight	1046 g / 2.31 lb	628 g / 1.38 lb	482 g / 1.06 lb	633 g / 1.40 lb	651 g / 1.44 lb	1600 g / 3.52 lb

iXU 150 Technical Specifications

Camera type	Medium format camera for aerial photography
Lenses	Schneider-Kreuznach fast sync lenses 28 mm to 240 mm
Lens mount	Phase One
Shutter speed	Leaf shutter: up to 1/1600 second*
Shutter control	Shutter control 1/3 f-stop increments
Interfaces	<ul style="list-style-type: none"> - USB 3.0 - Serial communication (RS 232) - Secured power input (LEMO) - Camera trigger - Mid-exposure pulse - Camera status
Data storage	<ul style="list-style-type: none"> - USB 3.0 to host computer - CompactFlash card Type I/II incl. UDMA 6 & 7
Synchronization speed in multiple camera configuration	100 microseconds with factory calibrated (FS) lenses
Resolution	8280 x 6208 pixels
Dynamic range	> 84 db
Aspect ratio	4:3
Pixel size	5.3 micron
Sensor optical size	43.8 x 32.9 mm
Light sensitivity	100 – 6400 ISO
Capture rate	0.8 seconds/frame
RAW File compression	IIQ large: 50 MB IIQ small: 33 MB

Lens + technology optimizes	<ul style="list-style-type: none"> - Color cast - Light falloff - Chromatic aberration - Fringing - Sharpness falloff - Lens distortion
Dimensions (excluding lens)	97.4 x 93 x 110 mm (w x h x l)
Output format	Phase One Raw, TIF & JPG
IR cut-off filter	Camera system available either with or without IR filter
Connection to pod	Four M4 bolts
Power input	12-30 VDC
Maximum power consumption	10 W
Weight (excluding lens)	750 grams
Weight (with 80 mm lens)	1.25 kg
Approvals	FCC (Class A), CE, RoHS
Operating Conditions	
Temperature	-10° to 40°C (14° to 104°F)
Humidity	15 to 80% (non-condensing)

* 240 mm leaf shutter speed is 1/1000s.



About Phase One

Phase One A/S is based in Copenhagen with offices in New York, London, Cologne, Tokyo and Hong Kong. Phase One Industrial is a division of Phase and is dedicated to research, development and manufacturing of advanced hardware and imaging software solutions that meet the unique requirements of aerial photography users.

To find out more about Phase One products, please visit <http://industrial.phaseone.com> and set up an appointment with one of our aerial photography experts for a demonstration.

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