

Aerial systems solutions for  
maximum image quality, reliability and productivity.

# Phase One PAS Solutions



4.06.19

# Enter the world of Phase One

High-end imaging technology from above

## Corridor Mapping

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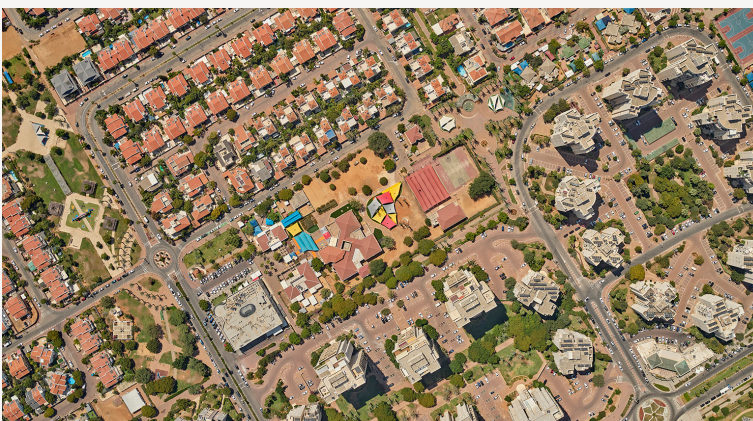


Our compact and lightweight aerial imaging solutions empower you to map and analyze roads, rails, and power lines. This enables you to take informed decisions, optimize operations and improve infrastructure management.

- Public transportation
- Environment and hydrology
- Utility management

## Large Area Mapping

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With our large area mapping solutions you can cover regional, large and country-wide areas while ensuring data quality from the earliest stage.

Take your productivity to new standards by leveraging swath of up to 48,800-pixel, while choosing from a broad range of GSD coverage.

- Cadaster and land survey
- Environmental monitoring
- Emergency response

## 3D City Modeling

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With our 3D city modeling solution, you can effortlessly capture the intricate details of urban environments. Achieve the highest Ground Sampling Distance (GSD) of less than 3 cm, ensuring precise data acquisition without motion blur.

- Urban planning and management
- Real estate

Unlock your full aerial potential with our state-of-the-art solutions to achieve **the highest levels of image quality, reliability and productivity** in your mission.



#### High quality

With our advanced camera solutions, experience high image quality by capturing precise and reliable results. Blur Control Technology (BCT) address motion blur at the source through high-speed shutters, while highly sensitive CMOS sensors and engineered optics guarantee high quality data outcomes. As a result, our high-resolution NRGB capabilities provide a representation closest to reality.



#### High reliability

With a focus on high reliability, our solution ensures quality control throughout the entire workflow from the earliest stage. The iX Suite offers a user-friendly interface for accurate planning, immediate quality assurance and re-fly options, and automated image quality assessment based on customizable criteria.



#### High productivity

Experience high productivity with our compact and lightweight solutions that allow you to fly longer with the same fuel consumption. Our proprietary IIQ format ensures minimum data handling time and data storage. The wide coverage reduces the number of flight lines required to cover the project area while maintaining the same Ground Sampling Distance (GSD) and side-overlap requirement.







# Phase One Aerial Solutions

Our aerial solutions feature superior quality imaging sensors for sharp, distortion-free images and accurate geospatial data while assuring data quality from the earliest stage possible with our iX Suite software.

We bring you unparalleled aerial mission success from flight planning, to execution, to final data delivery with high image quality, reliability and productivity in mind.



[Learn more](#)

## Compact solutions

For those performing local and regional planning with small-to-medium-performance aircraft and want to achieve high resolution data captured while having a compact and light solution.

### PAS 150

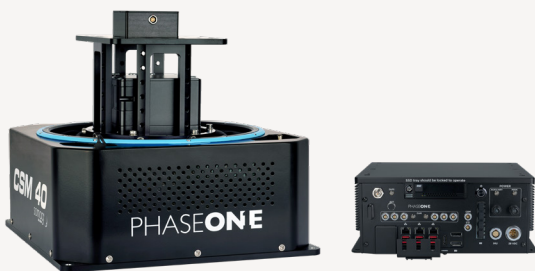
The most compact solution for aerial mapping

- Variety of lenses to choose from based on your needs.
- Designed for small camera port or mounting on the wing pod.

### PAS 280

The most cost-effective solution for aerial mapping

- Designed for medium-size camera port.
- Available both as a compact and pod version designed for full-sized camera ports, ensuring a wise investment for future oblique imaging needs.



## iX Suite software for seamless workflow



### iX Plan

Select the camera from the database and plan with the selected camera-lens combination.



### iX Flight Pro

Manage the entire system in flight and display all images for immediate review.



### iX Process

Display images from the camera to view the actual ground coverage.



## Full size solutions

For those creating high precision 3D city models, national and country-wide planning with medium-to-large performance aircraft and with the need of using a broad GSD range.

### PAS 880

The most efficient solution for 3D city modeling

- Balanced GSD across all images for both nadir and oblique cameras.
- Flexible in use for either combined or nadir-only projects.
- Modular system (RGB, NIR, Oblique).



### PAS PANA

The most productive wide-area camera solution for aerial mapping

- Achieve highest productivity with large swath.
- Adjust resolution to your needs.
- Embrace freedom to choose your aircraft and any preferred post-processing software supporting multi-head systems.
- Own your data by breaking free from content program.



## iX Suite software for seamless workflow



### iX Plan

Select the system from the database, planned

- with the nadir camera when operating with PAS 880.
- with virtual camera when operating with PAS Pana.



### iX Flight Pro

Manage the entire system in flight and display images for individual cameras for immediate review.



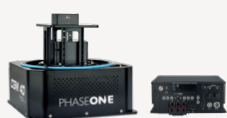
### iX Process

Display images from one or all cameras to view

- the nadir and oblique coverage when using PAS 880.
- the actual ground coverage when operating with PAS Pana.

## Compact

## Full size



	PAS 150	PAS 280	PAS 880	PAS Pana
<b>Cameras</b>	<p>Nadir 150MP camera with a variety of lens options</p> <p>150MP NIR camera (optional)</p>	<p>Nadir 280MP RGB camera with a 90 mm lens</p> <p>150MP NIR camera with a 50 mm lens</p>	<p>Nadir 280MP RGB camera with a 90 mm lens</p> <p>150MP NIR camera with a 50 mm lens</p> <p>Oblique 4x 150MP RGB cameras with 150 mm lenses</p>	<p>5x 150MP RGB camera with a 150 mm lens</p> <p>2x 150MP NIR camera with a 70 mm lens</p>
<b>Pixel swath</b>	14204	20150	20150 (Nadir) 14204 (Oblique)	48800
<b>Frame size</b>	<p>14,204 x 10,652 pixels (RGB)</p> <p>14,204 x 10,652 pixels (NIR)</p>	<p>20,150 x 14,118 pixels (RGB)</p> <p>14,204 x 10,652 pixels (NIR)</p>	<p>Nadir 20,150 x 14,118 pixels (RGB) 14,204 x 10,652 pixels (NIR)</p> <p>Oblique 14,204 x 10,652 pixels (RGB)</p>	<p>14,204 x 10,652 pixels (RGB)</p> <p>10,652 x 14,204 pixels (NIR)</p>
<b>Field of view</b>	Depends on chosen lens	<p>RGB 32.9° along track 45.7° across track</p> <p>NIR 43.7° along track 56.2° across track</p>	<p>RGB (Nadir) 32.9° along track 45.7° across track</p> <p>NIR (Nadir) 43.7° along track 56.2° across track</p> <p>RGB (Oblique) 20.2° along track 15.2° across track</p>	<p>RGB 20.2° along track 70.0° across track</p> <p>NIR 31.9° along track 70.0° across track</p>
<b>Frames per second</b>	2 frames per second	2 frames per second	2 frames per second	1.7 frames per second
<b>Dynamic range</b>	83 dB	83 dB	83 dB	83 dB
<b>Channels</b>	RGB, NIR optional	RGB, NIR optional	RGB, NIR optional	RGB, NIR
<b>Nadir to Oblique</b>	No	No	Yes Focal length ratio 1:167	No
<b>Power consumption</b>	110w Avg. power consumption 160w max peak power	330w Avg. power consumption 400w max peak power	400w Avg. power consumption 470w max peak power	400w Avg. power consumption 470w max peak power
<b>Weight (kg) (weight of mount)</b>	8 kg (5.2)	38 kg (14)	47 kg (29)	47 kg (29)
<b>Data storage capacity (Controller)</b>	4 TB or 8 TB 64 GB RAM	4 TB or 8 TB 64 GB RAM	24 TB 128 GB RAM	24 TB 128 GB RAM
<b>GNSS/IMU</b>	iX Controller with integrated Applanix GNSS-Inertial AP180 (IMU - 69/79) AP310 (IMU - 82) AP510 (IMU - 91) AP610 (IMU - 57)	iX Controller with integrated Applanix GNSS-Inertial AP310 (IMU - 82) AP510 (IMU - 91) AP610 (IMU - 57)	Integrated Applanix GNSS-Inertial AP510 (IMU - 91) AP610 (IMU - 57)	Integrated Applanix GNSS-Inertial AP610 (IMU - 57)
<b>Stabilized mount</b>	Somag gyro-stabilized mount csm40 or DSM 400	Somag gyro-stabilized mount DSM 400 or GSM 4000	GSM 4000	GSM 4000
<b>iX Suite</b>	Included	Included	Included	Included





# Your tailored support for every need

With a global network of skilled engineers and technicians, we got you covered.

We are committed to assist you in meeting deadlines and minimizing downtime by providing fast and efficient communication as well as staff training to stay up-to-date on the latest developments.

Together, we can collaborate on your future needs and ensure a seamless experience.



Fast and efficient communication



Customer portal



Global coverage

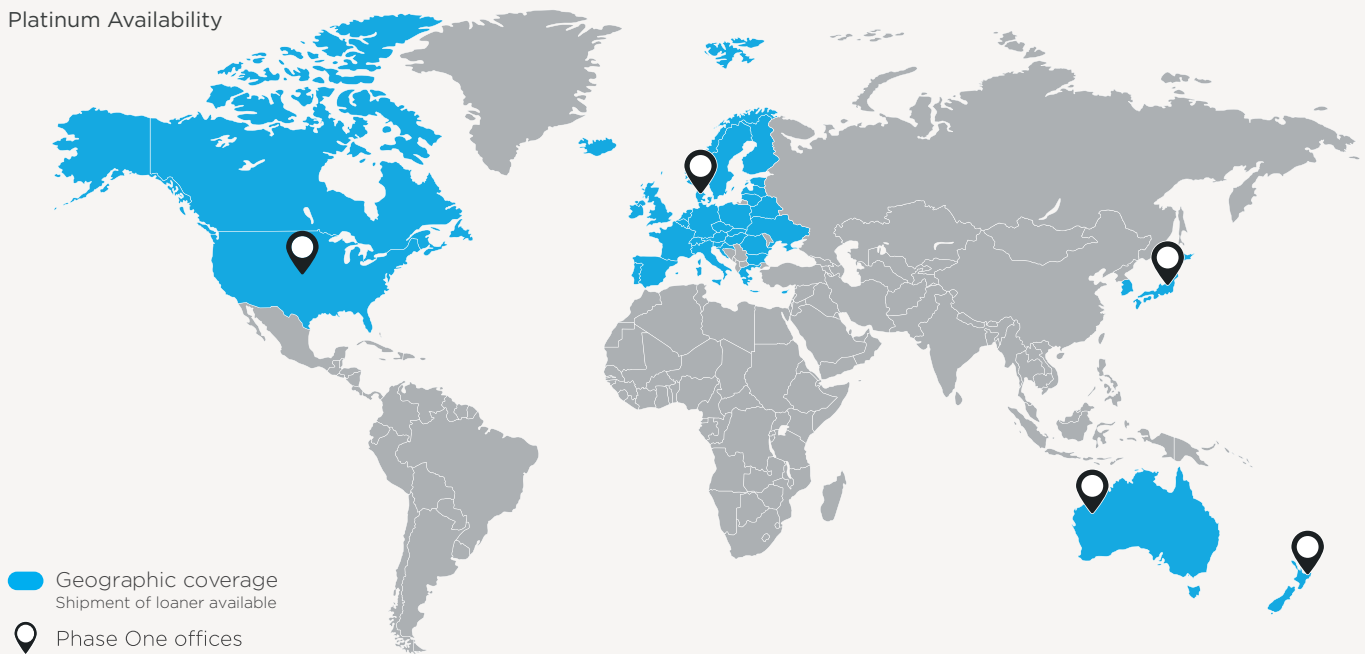


# Support Suite

	Online support	Firmware and software maintenance	Phone support*	Free repair**	Proactive shutter change***	Cables and consumables covered	On-site support or component loan	System calibration****
Silver	✓	✓						
Gold	✓	✓	✓	✓	✓	✓		
Platinum	✓	✓	✓	✓	✓	✓	✓	✓

\* Online and phone support limited to standard business hours, Monday to Friday.  
 \*\* Free repair does not apply to physical damage, water damage, or failure due to improper use.  
 \*\*\* Proactive shutter change available at or near 500,000 captures. Limit 1 per year per shutter.  
 \*\*\*\* 1 per year based on customer flight.

## Platinum Availability



## Terms & conditions

- Online and phone support available during each office's standard business hours.
- Guaranteed response time is within 24 hours during business hours.
- On-site support or component loan at the discretion of Phase One Support and based on best practical solution.
- Policy renewals begin at the expiration date of previous contract.

## About Phase One

Phase One A/S is a leading researcher, developer and manufacturer of medium- and large-format digital cameras and imaging systems. Phase One has pioneered the development of digital photography technology since 1994. The company has developed core imaging technologies and a range of digital cameras and imaging modules, providing the world's highest image quality in terms of resolution, dynamic range, color fidelity and geometric accuracy. Phase One has grown to become the leading provider of high-end imaging technology across many demanding business segments, such as space imaging, aerial mapping, industrial inspection, and heritage digitization, as well as serving the world's most demanding professional photographers.

Based in Copenhagen, Denmark, and with regional offices in New York, Denver, Cologne, Tel Aviv, Tokyo, Beijing, Shanghai, and Hong Kong, Phase One nurtures long-term relationships with customers, technology partners and its global network of distributors, often playing the role of digital imaging partner to customers with unique requirements. It is with this passion for service that Phase One continually exceeds expectations and drives the imaging industry forward.

## IMAGING BEYOND IMAGINATION



Contact your Phase One representative regarding availability of Phase One products in your region.

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