

P3 Payload

Unmatched inspection productivity



PHASE**ONE**

Phase One P3 Payload

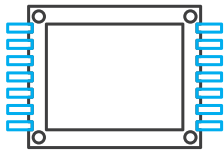
for DJI M300/350, Mavlink & Auterion supported drones

Make No Compromises on Image Quality

Phase One P3 is designed to maximize the productivity of the most demanding inspection projects where time, safety, and image details are paramount for success.

Ready-for-flight with DJI M300/350 and ready-for-integration with Mavlink drones, the P3 increases your inspection productivity through its ease of installation, superior data output, and uncompromised image details.

Equipped with a medium format Phase One iXM camera and a sensor that is 1.7 times larger than other cameras, it captures more details in each frame. In addition, iXM cameras boast the highest dynamic range and have various lens options ranging from 35mm to 150mm, the latter being the longest option available for small UAVs.



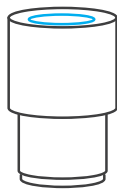
Best in class sensor performance

Make the most out of every flight



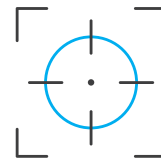
Largest image sensor

Capture more in every shot



Longest focal length 150mm lens

Get more details from a distance



Smart focusing

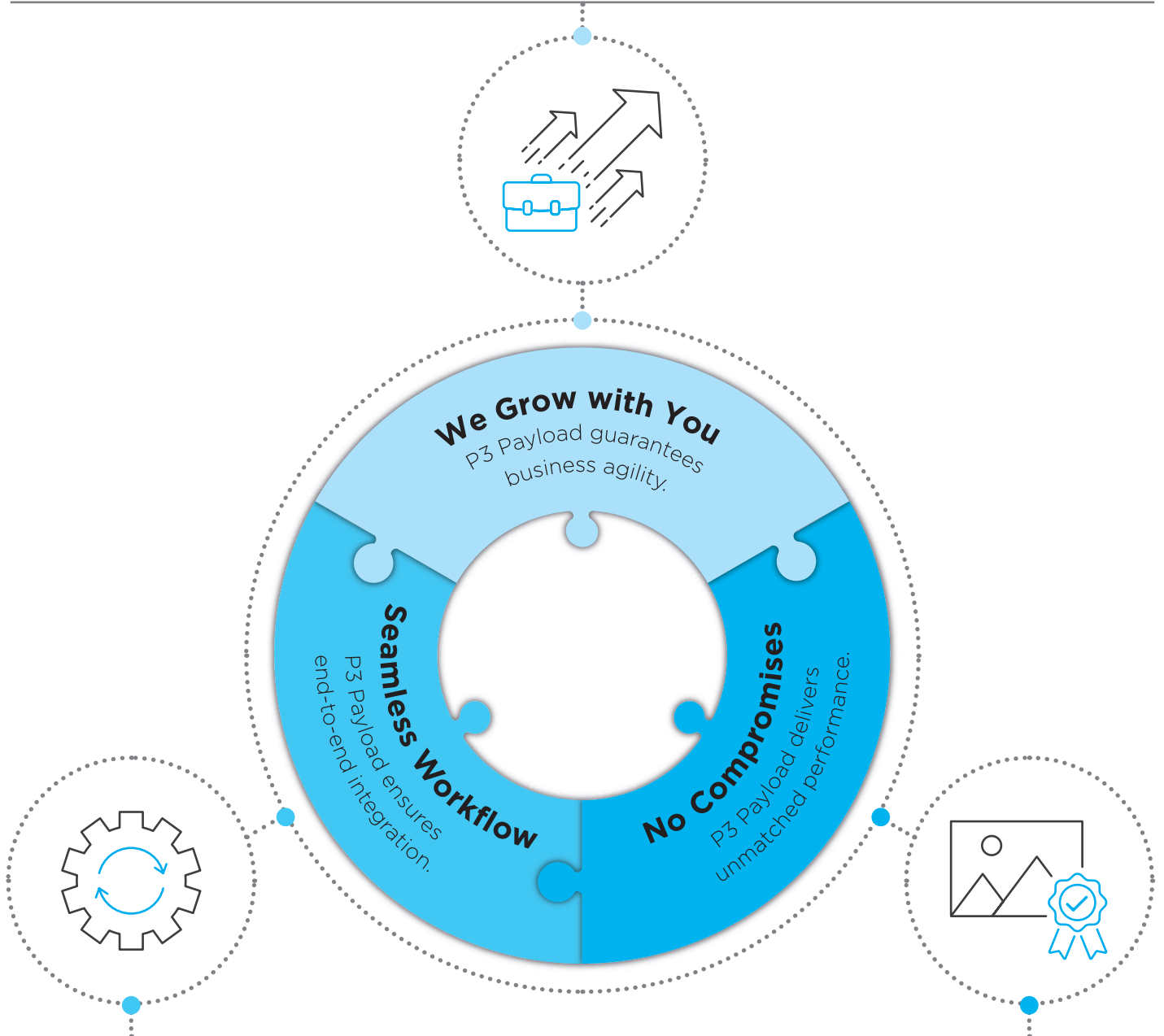
Make every shot count

We Grow with You

Invest in future-proofing your business and securing your reputation.

P3 Payload's compatibility with major UAV ecosystems untethers your choice of imaging solution from your UAV decision. Secure your long-term business success with the most versatile imaging solution.

Phase One invests in the continuous development of new and existing imaging solutions.



Seamless Workflow

Focus on creating customer value and not on new processes.

You can focus on creating customer value through the P3 Payload's seamless end-to-end integration with major UAV ecosystems.

Phase One offers extensive SDK as part of the integration toolbox.

No Compromises

Get the finest details from the furthest distance.

Don't compromise on image quality when asset safety or regulations prevent you from closing the distance on your data acquisition.

Phase One provides the most advanced technology platform.



P3 for DJI-M300/350



P3 for Mavlink



P3 for Auterion



Versatile platform support

Interface to DJI, Auterion and Mavlink UAVs or use the Phase One integration toolbox for seamless integration with your existing workflows

3-Axis Stabilization

Wide lense range

35, 80 and 150mm lenses, to meet your GSD requirements from any distance without compromising on safety



Smart focusing

Built-in laser range finder to ensure consistent focus in complex and high contrast situations

Medium format sensor 50/100

50 & 100MP sensors ensure largest coverage, highest dynamic range, and smallest GSD

DJI M300/350

The P3 Payload for DJI M300/350 is a ready-for-flight plug and play solution, that gets you started from day one, with the tools you already have, to deliver better value to your customers.



P3 for DJI M300/350 provides:

- Turnkey integration with the DJI Pilot App eliminating the need to retrain your pilots
- Increased productivity through an extended lens offering
- Maximum utilization and uptime of your existing M300/350 fleet by opening up new application opportunities

Camera setting

- Set focus peaking threshold
- Set ISO
- Set shutter speed
- Set aperture
- Set exposure compensation
- Toggle auto exposure (AE)
- Set focus distance
- Toggle auto and manual focus (AF/MF)
- Show histogram

Operation modes

- Dual & single operator mode
- Lock & follow mode
- Support for mission flight with DJI Smart Controller

Data

- Store metadata
 - Time
 - Drone orientation
 - Position
 - Payload orientation
 - Altitude
 - Lens focus position
 - Speed
 - Laser Range Finder ranging
- Support RTK GPS



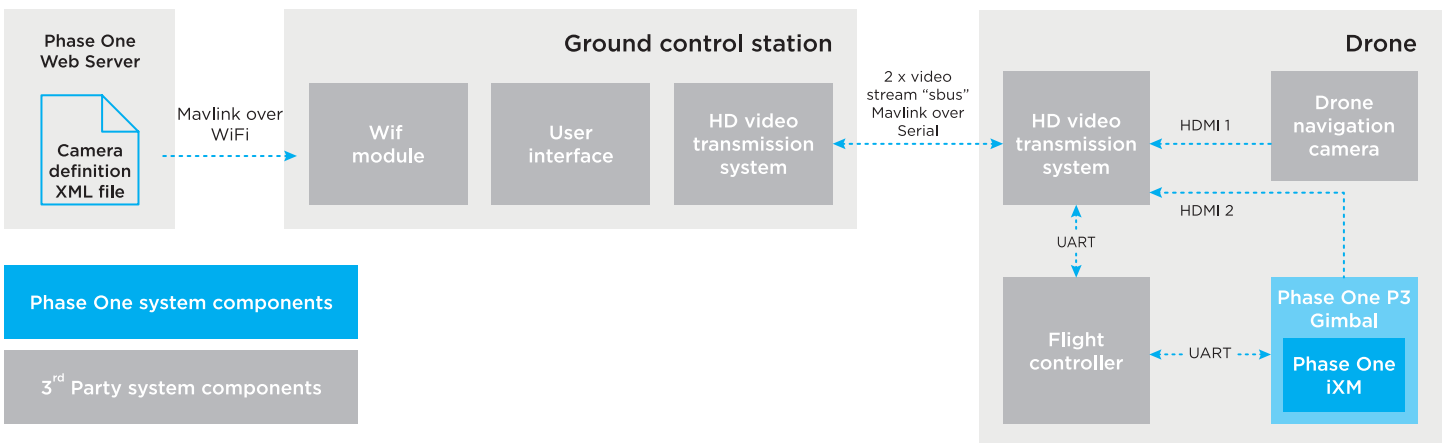
Mavlink

P3 for Mavlink supported drones is ready for integration solution.

It is designed to significantly reduce your time to market by fast-tracking your integration efforts. You have the freedom to customize the integration to your specific platform and application requirements.

P3 Payload for Mavlink supported drones provides:

- Full compatibility with your Mavlink drone enabling you to offer it as a turnkey solution for new markets
- Complete documentation of the open-source software, and electrical and mechanical interface, making the integration a breeze
- Your choice of Mavlink Ground Control Software through the Mavlink Camera Protocol



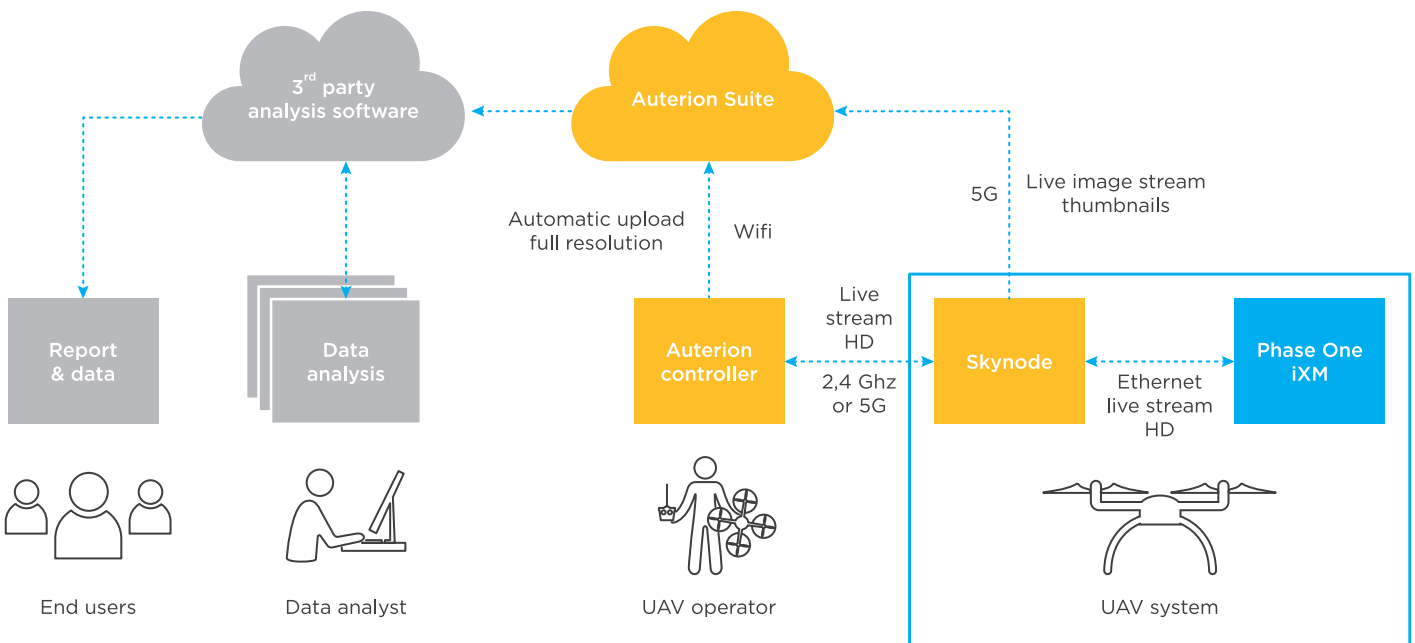
Auterion

P3 for Auterion is ready for scaling solution providing faster expansion and diversification of your drone fleet.

Supporting customers current and future business regardless of their platform, the P3 for Auterion delivers unmatched, end-to-end productivity.

P3 for Auterion provides:

- Full support for the Auterion Ecosystem via the SkyNode and Mission Control
- Leverage on smart workflows and communication infrastructure with extended connectivity
- Complete documentation accessible via the Phase One Integrator Portal



Unmatched productivity



Flight time:
2 hours



280
pictures

P3 100MP
80mm



25m

GSD:
0.11cm/px



Flight time:
5 hours



733
pictures

Full frame 42MP
30mm



10m

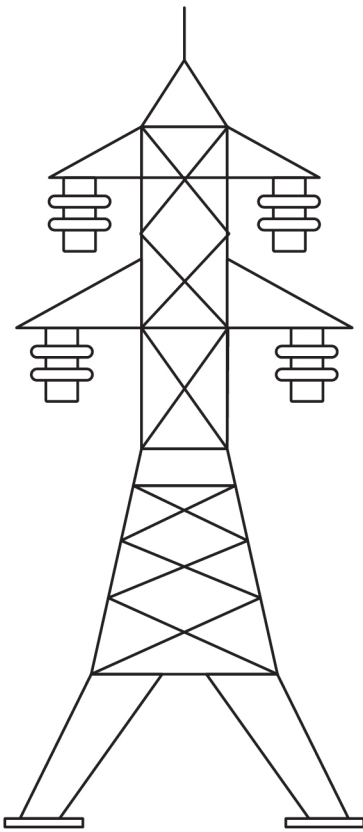
GSD:
0.13cm/px

10,000m²

Roof of the Danish National Museum



Longest focal length 150mm lens



GSD 0,6mm	Phase One P3 iXM 100MP 150mm lens Area Coverage: 42m ²	
GSD 1,2mm	Phase One P3 iXM 100MP 80mm lens Area Coverage: 139m ²	
GSD 0,7mm	DJI H20 focal length 80mm Area Coverage: 4,2m ²	
GSD 2,2mm	DJI P1 50mm lens Area Coverage: 216m ²	

25m Safety distance



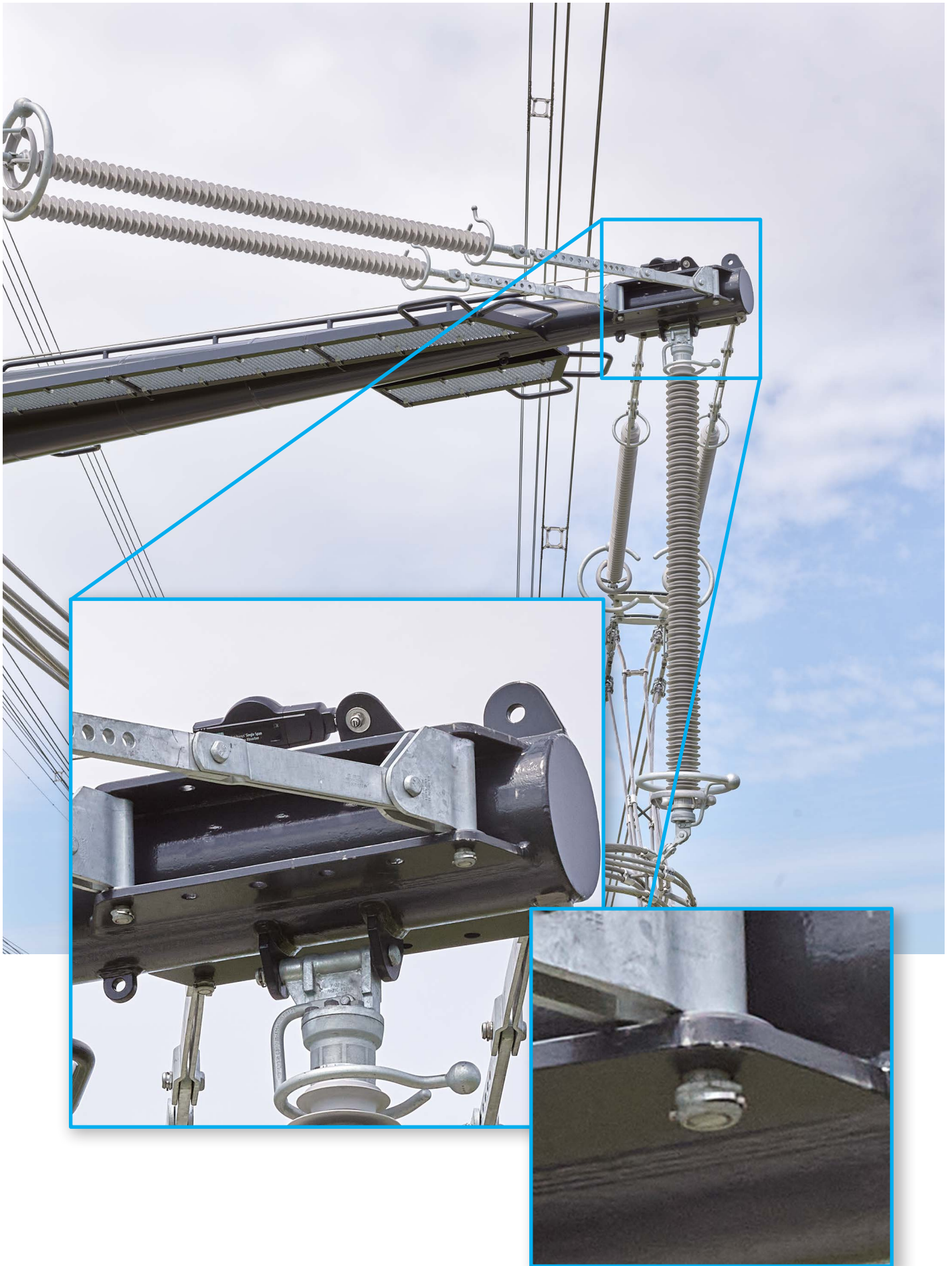
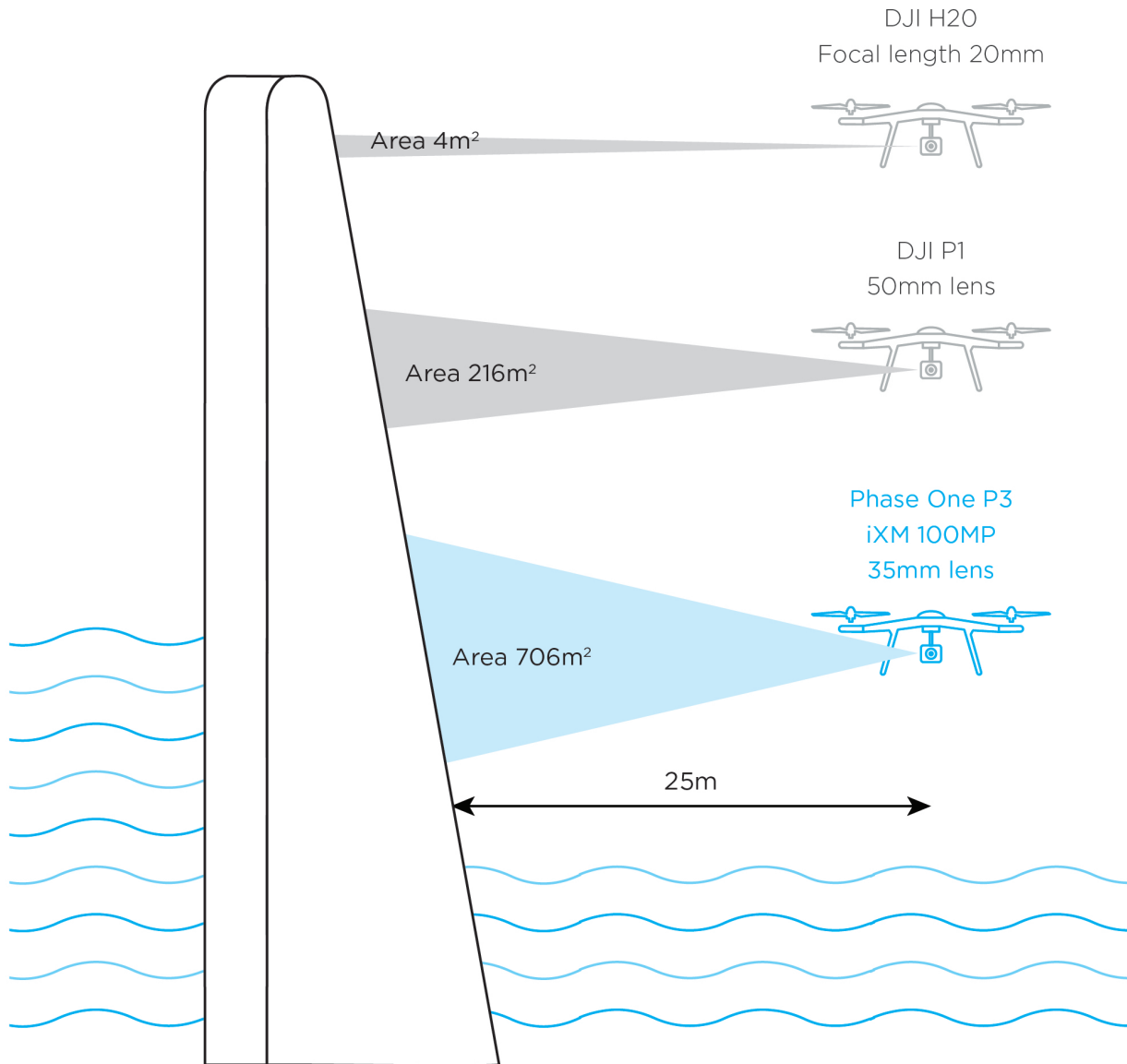


Image courtesy of Eyefly B. V., Netherlands

Largest image sensor



iXM-100 medium format

35mm full frame
DJI P1

1/1.7" CMOS, 20 MP
DJI H20

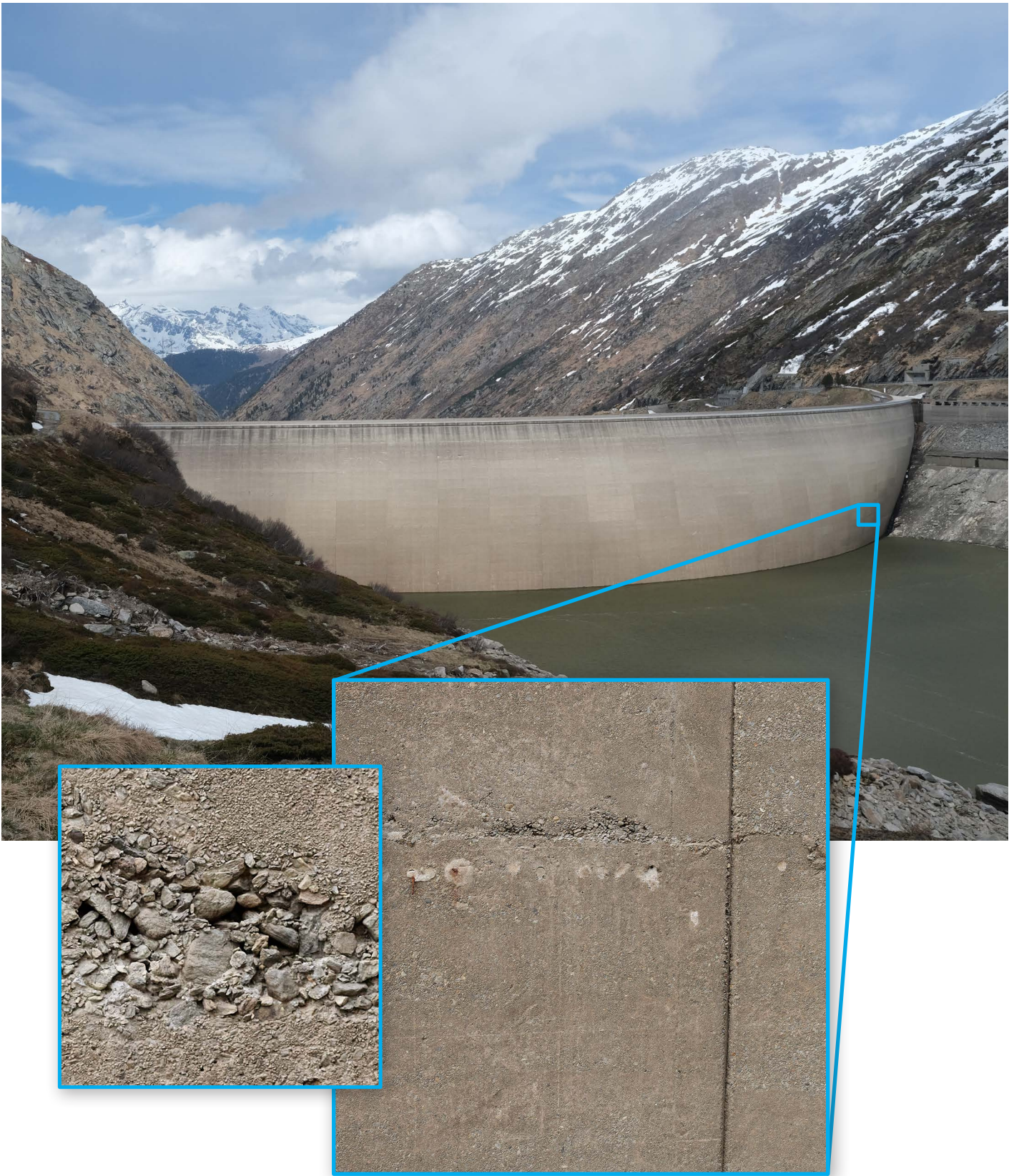


Image courtesy of Orthodrone GmbH (DE) / Axpo Power AG (CH)

Highest dynamic range

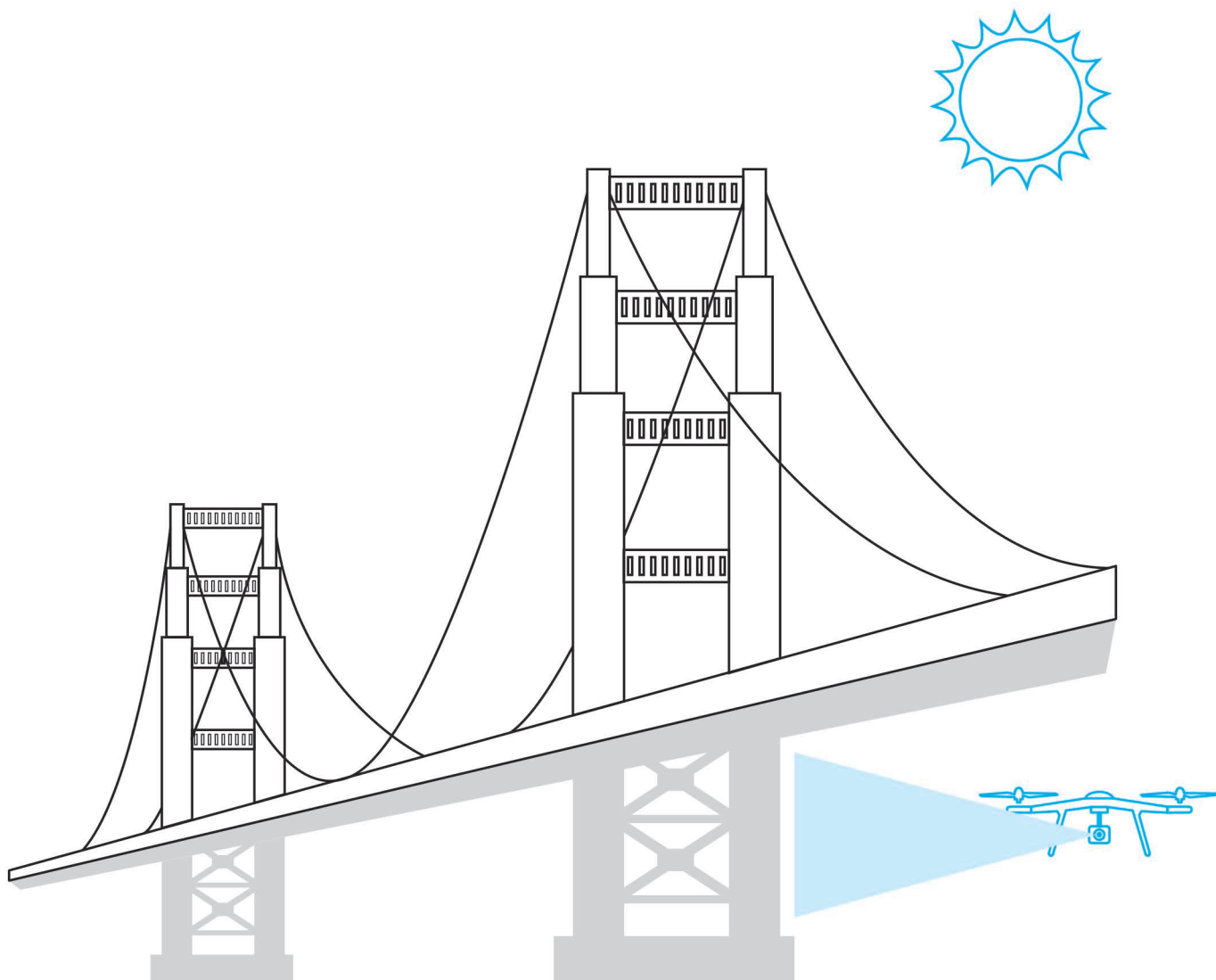


Image captured in IIQ

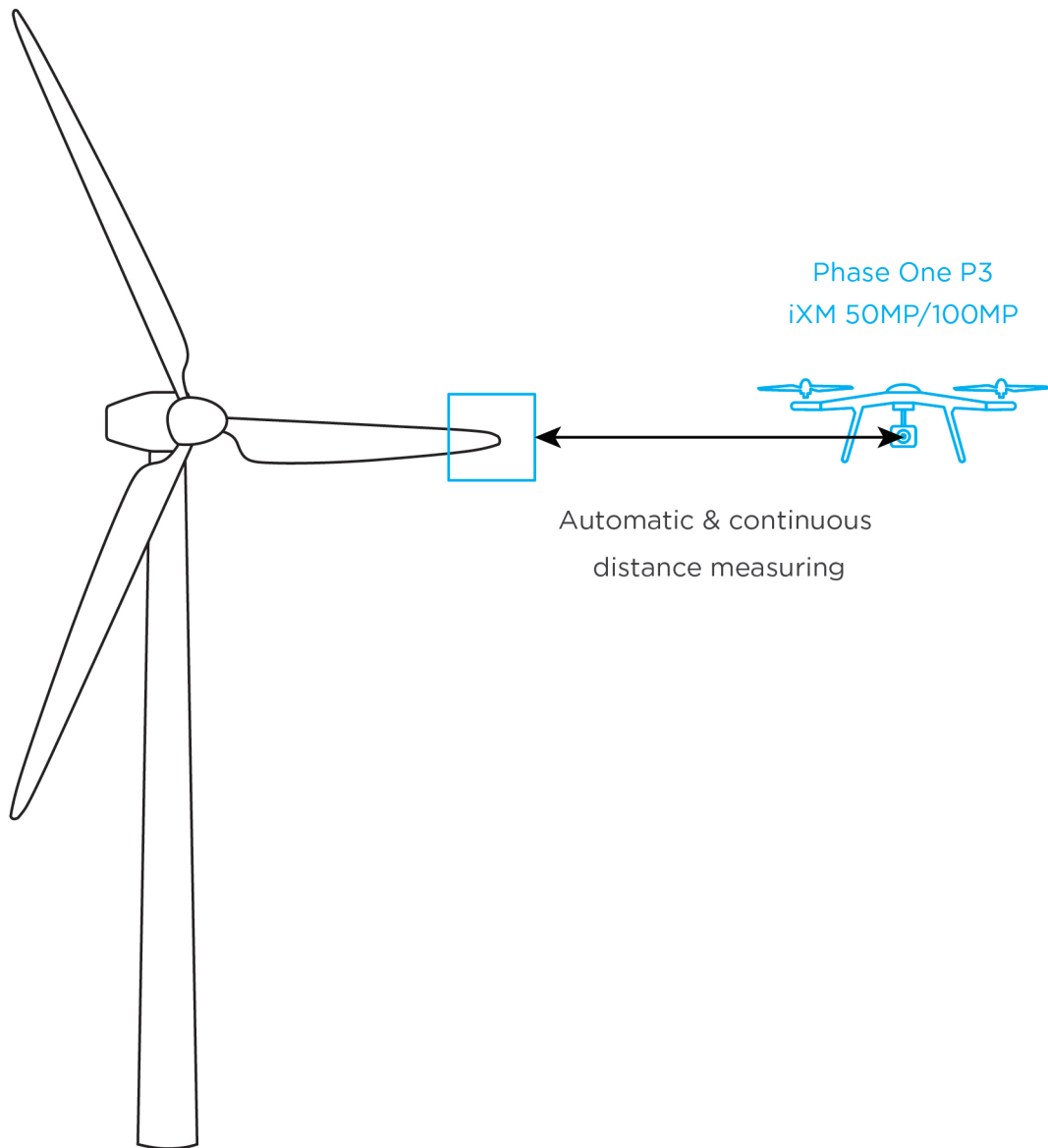


Image delivered to customer



Image courtesy of Nordic Unmanned AS, Norway

Smart focus



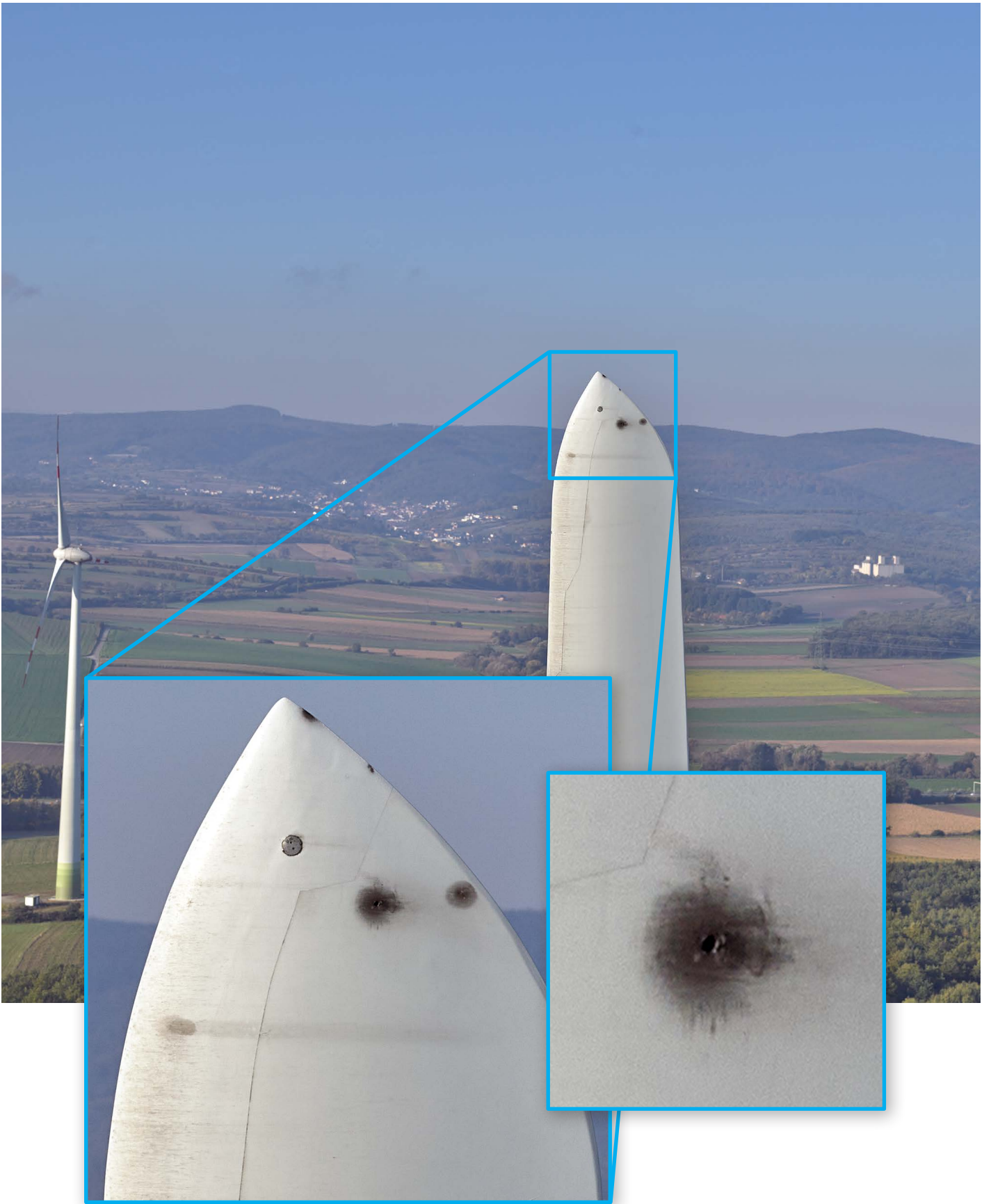


Image courtesy of 4D-IT GmbH, Austria

Specifications

	P3 DJI	P3 Mavlink	P3 Auterion
Weight (w.80mm AF Lens)	2,6kg		
Sensor	Medium format iXM 50 (8280 x 6208) & 100MP (11664 x 8750)		
Environmental rating	IP53 (iXM only)		
Gimbal stabilization	3 axis		
Laser range finder (Effective Range)	Approximately 90m		
Supported lense range	35*, 80, or 150mm		
Camera control (key features)	ISO, shutter speed, exposure, AE, focus distance, AF/MF, LRF range max/min, focus peaking		
Camera metadata (key features)	EXIF (incl. IMU & Custom Field), ICC Profile, XMP (incl. GPS) & IPTC		
Live view	HDMI		
Smart focusing	Auto focus based on LRF input		
Flight planning software	DJI pilot	Q Ground Control & Mission Planner	Mission Control
Electric interface	Skyport V2	HDMI, Telemetry, USB-c	
Software interface	Support for PSDK & MSDK	Support for Mavlink Protocol v1	
Hardware compatibility	DJI M300/350	Mavlink based platforms Cube Orange & PixHawk 4.0	Auterion based platforms SkyNode

RSM Lenses technical specifications

	35mm	80mm	80mm AF	150mm AF
Lens composition	12 elements in 8 groups	8 elements in 5 groups		8 elements in 7 groups
Minimum focusing range	infinity		3m to infinity	10m to infinity
Shutter speed max (sec)	1/2500			
Exposure control	1/3 f - stop increments			
Aperture range	f/5.6 - f/22			
Filter diameter (mm)	58			
Angle of view - Long side (°)	63	30.4		17.1
Angle of view - Short side - (°)	49.4	23		12.9
Entrance pupil to image plane (mm)	72	85		107
Weight - with P3 (kg)	2.5	2.43	2.6	2.7









Discover more at geospatial.phaseone.com/drone-payload/p3-payload-for-drones/

About Phase One

Phase One A/S is a leading researcher, developer and manufacturer of medium format and large format digital cameras, software, and imaging solutions.

Founded in 1993, Phase One is a pioneer of digital photography and has developed core imaging technologies and a range of digital cameras and imaging modules. Phase One provides the world's highest image quality in terms of resolution, dynamic range, color fidelity and geometric accuracy. As such, the company has grown to become the leading provider of high-end imaging technology across many business segments. This includes both hardware and software for aerial mapping, industrial inspection, and cultural heritage digitization, as well as serving the world's most demanding photographers.

Phase One A/S

Roskildevej 39
DK-2000 Frederiksberg
Denmark
Tel.: +45 36 46 0111
Fax: +45 36 46 0222

Phase One USA

Rocky Mountain Metropolitan Airport
11755 Airport Way, Suite 216
Broomfield, CO 80021
USA
Tel.: +1 (303) 469-6657

Phase One Germany

Lichtstr. 43h
50825 Köln
Germany
Tel.: +49 (0)221/5402260
Fax: +49 (0)221/54022622

Phase One Japan Co., Ltd.

#401 ARK HOUSE
17-6 Wakamatsucho
Shinjuku-ku, Tokyo
162-0056, Japan
Tel: +81-3-6380-2506
Fax: +81-3-6380-2507

Phase One Asia

Unit 503, 5/F., Times Tower
No. 928-930 Cheung Sha
Wan Road, Lai Chi Kok,
Kowloon, Hong Kong
Tel.: + 852 28967088
Fax: + 852 28981628



geospatial.phaseone.com

PHASEONE