



Phase One iXR Camera System  
Fully Integrated Reproduction Photography Solutions

PHASE**ONE**  
**INDUSTRIAL**

# Phase One iXR

The Phase One iXR is a fully integrated, robust digital camera system enabling a highly productive solution for digitization, fine art reproduction and diverse industrial applications.

Using input from leading reproduction experts, the iXR was built from the ground up to meet the exacting needs of the reproduction photographer and was designed to streamline workflow by enabling you to take full control of the entire process. The iXR's impressive combination of outstanding image quality, high productivity and rugged engineering makes it the perfect camera system for getting your work done on time and on budget.

	iXR 180	iXR 160	iXR 140
Resolution	10320 x 7752 (80 MP)	8984 x 6732 (60 MP)	7320 x 5484 (40 MP)
Dynamic range	12.5 f-stops (72 db)		
Aspect ratio	4:3		
Pixel size	5.2 micron	6.0 micron	6.0 micron
CCD size effective	53.7 x 40.3 mm	53.9 x 40.4 mm	43.9 x 32.9 mm
Lens factor	1.0	1.0	1.3
Light sensitivity (ISO)	35 – 800 (140-3200 in Sensor+)	50 – 800 (200-3200 in Sensor+)	50 – 800 (200-3200 in Sensor+)
Capture frame rate (frames per second)	0.7 frame	1.0 frame	1.2 frame
RAW file compression	IIQ large: 80 MB IIQ small: 54 MB	IIQ large: 60 MB IIQ small: 40 MB	IIQ large: 40 MB IIQ small: 26 MB
RAW file compression (Sensor+)	IIQ large: 20 MB IIQ small: 13.5 MB	IIQ large: 15 MB IIQ small: 10 MB	IIQ large: 10 MB IIQ small: 7 MB
File output dimensions	300 dpi: 87.4 x 65.6 cm  600 dpi: 43.7 x 32.8 cm	300 dpi: 76.1 x 57 cm  600 dpi: 38 x 28.5 cm	300 dpi: 61.9 x 46.4 cm  600 dpi: 30.1 x 23.2 cm
Data storage	CompactFlash card: Type I/II including UDMA 6 and 7		

## iXR camera body specs

Camera type	Medium format camera body for reproduction and industrial applications
Digital back mounts	Phase One/Mamiya 645 mount
Compatible backs	Phase One IQ Phase One P/P+ and Leaf Aptus-II (with limited functionality)
Lenses	Schneider-Kreuznach leaf shutter lenses Phase One digital lenses Mamiya 645 AFD / PRO lenses
Focus control	Remote or manual, real focus control in Live View mode via Capture One software or SDK
Automation	Full automation when working with Phase One IQ digital backs
Shutter speed	Leaf shutter: 1/1600s to 60 minutes Focal plane: 1/4000s to 60 minutes Constant open aperture option
Shutter control	1/3 f-stop increments
Flash sync	Focal plane shutter: Up to 1/125s Leaf shutter lenses: Up to 1/1600s
Interfaces	X sync terminal Secured power input (LEMO) 2 secured I/O connectors (LEMO) • electronic triggering • devices/hand release cable Mini USB connector for firmware updates
Tripod head socket	Two 3/8 inch - on bottom and on side (25 mm to locking pin hole)
Power input	12-30V DC
Maximum power consumption (including digital backs)	20W
Dimensions	128 x 147 x 62 mm / 5.03 x 5.78 x 2.44 in (W x H x D)
Weight (including digital backs)	1.6 kg
Approvals	FCC (Class A), CE, RoHS
<b>Operating Conditions</b>	
Temperature	-10° to 40° C (14° to 104° F)
Humidity	15 to 80% (Non-condensing)
Operating systems / software for Phase One Capture One	Windows 7® Mac OS X 10.6 or later

# Image Quality

Designed for full compatibility with Phase One's legendary medium format product line, the iXR delivers the clean, detailed image quality that only high resolution, medium format systems can produce. The combination of IQ digital backs, Schneider-Kreuznach leaf shutter and Phase One focal plane lenses guarantees image quality that is second to none.

- Dynamic Range – 12.5 f-stops is standard in Phase One IQ digital backs, which are available in 40 MP, 60 MP and 80 MP resolutions.
- Ultimate Image Sharpness – Phase One's extensive array of lenses, including Schneider-Kreuznach leaf shutter lenses.
- Excellent Color And Detail – Advanced algorithms provided by Phase One's Capture One workflow software and DALSA CCD sensors and ensure faithful reproduction of what the human eye sees.
- The DALSA Sensor Advantage – Phase One IQ digital backs are built around cutting-edge DALSA CCD sensors. Through years of collaboration we have developed a strong partnership that has helped to produce the high-caliber sensors found in the IQ digital backs.



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## Phase One IQ Digital Backs

The iXR Camera System is fully integrated with Phase One's leading IQ series digital backs. A high dynamic range on the 80, 60 and 40 megapixel backs produce images with fine tonal gradations and details. The 80 and 60 megapixel backs have a 4 to 3 aspect ratio when shooting at a 645 full frame size, ensuring the best coverage with your lenses. The high resolution gives you maximum versatility with your images, ensuring top quality and usability, even when you work with cropped images.



IQ Digital Back

# Productivity

## Tailor-made for reproduction

Full-integration between the core components that make up the iXR system ensures an end-to-end workflow solution. Remote focusing and capture are made possible via seamless connectivity with Phase One's Capture One workflow software, achieving previously unseen levels of productivity and speed.



Switching Lens



### Quick Lens Change

Flexible design enables quick and easy lens changes without the use of lens boards or adapters.

### Remote Focus and Capture

Adjust focus and quickly move from Live View to capture, remotely, using your mouse or keyboard.

### Phase One IQ digital backs

12.5 f-stops and up to 80 megapixels offer excellent color detail and outstanding image resolution.



### Built to Last

iXR incorporates aircraft grade aluminum alloys in its construction, ensuring top notch productivity and durability.



### Schneider-Kreuznach leaf shutter lenses

Achieve unbelievable sharpness and lens sync speeds of up to 1/1600 of a second.



# Rugged Engineering

## Built to last

The Phase One iXR body, made from tough, aircraft-grade aluminum alloy, is built without a mirror and viewfinder to present a real workhorse, heavy duty solution. The elimination of the mirror minimizes vibration and reduces the number of moving parts. These measures create a rugged, robust solution with increased longevity when compared to other medium format camera solutions. The modular nature of medium format digital systems lets you easily upgrade as new technologies become available.

- o **Rugged and Robust** – Built to last, the Phase One iXR camera body is made from extremely durable aircraft-grade aluminum alloy.
- o **Industrial Connectors** – Self-locking LEMO connectors make sure that cables stay securely connected while you work.
- o **Constant Aperture** – Lens remains at stopped-down aperture settings between shots, reducing vibration and additional wear on the lens.
- o **Mirror-free System** – The Phase One iXR has few moving parts to ensure minimal vibrations, longevity and easier maintenance.
- o **Compact, Small Footprint** – The Phase One iXR has a small footprint and includes two 3/8 inch threaded tripod head sockets to enable a secure mounting of the camera in both horizontal and vertical modes.



Copy Station

# Capture One Software

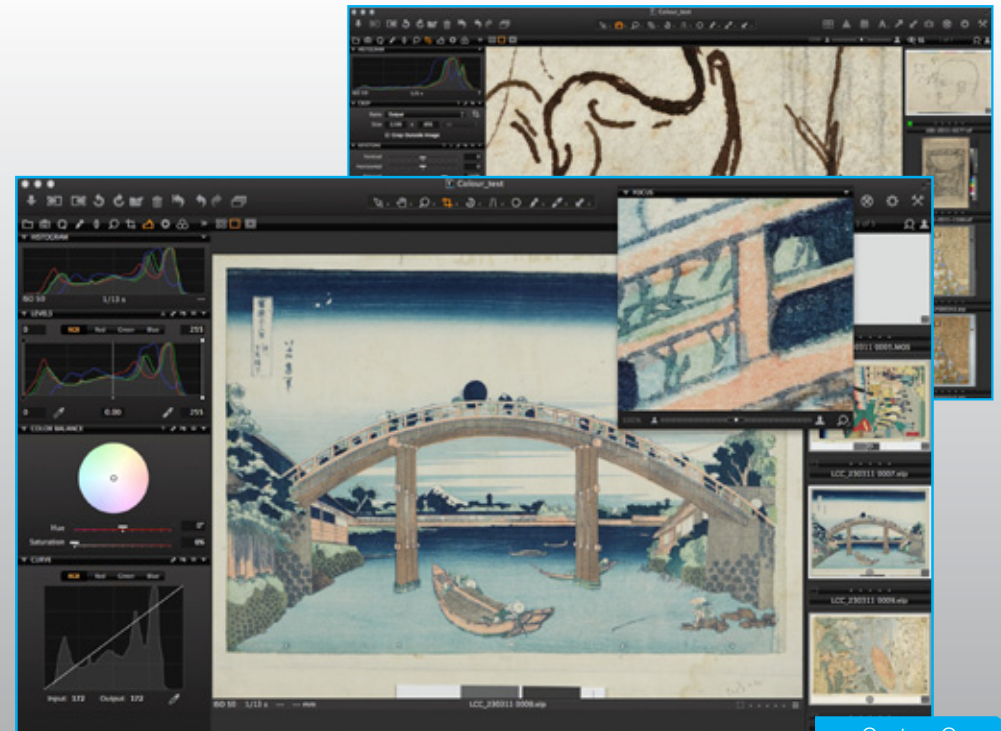
## Image capture and processing

Capture One is a professional capture, RAW conversion and image editing software which has been optimized for shooting with Phase One camera systems. Together with the Phase One camera system, it delivers the world's highest image quality with excellent color and detail. It contains all of the essential tools for high-end performance in one package to enable you to capture, adjust, organize, edit and process images in a fast, flexible and efficient workflow.

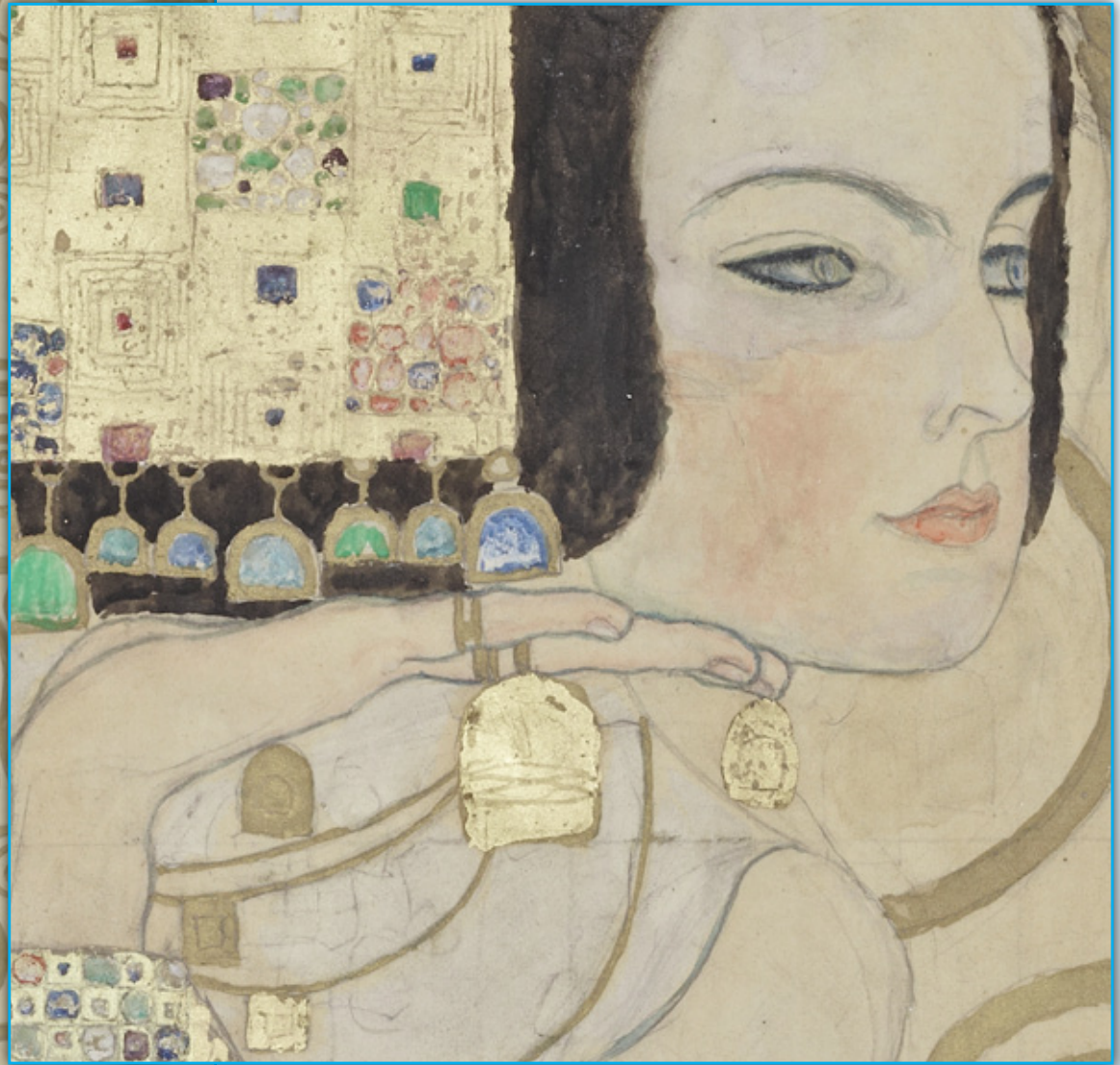
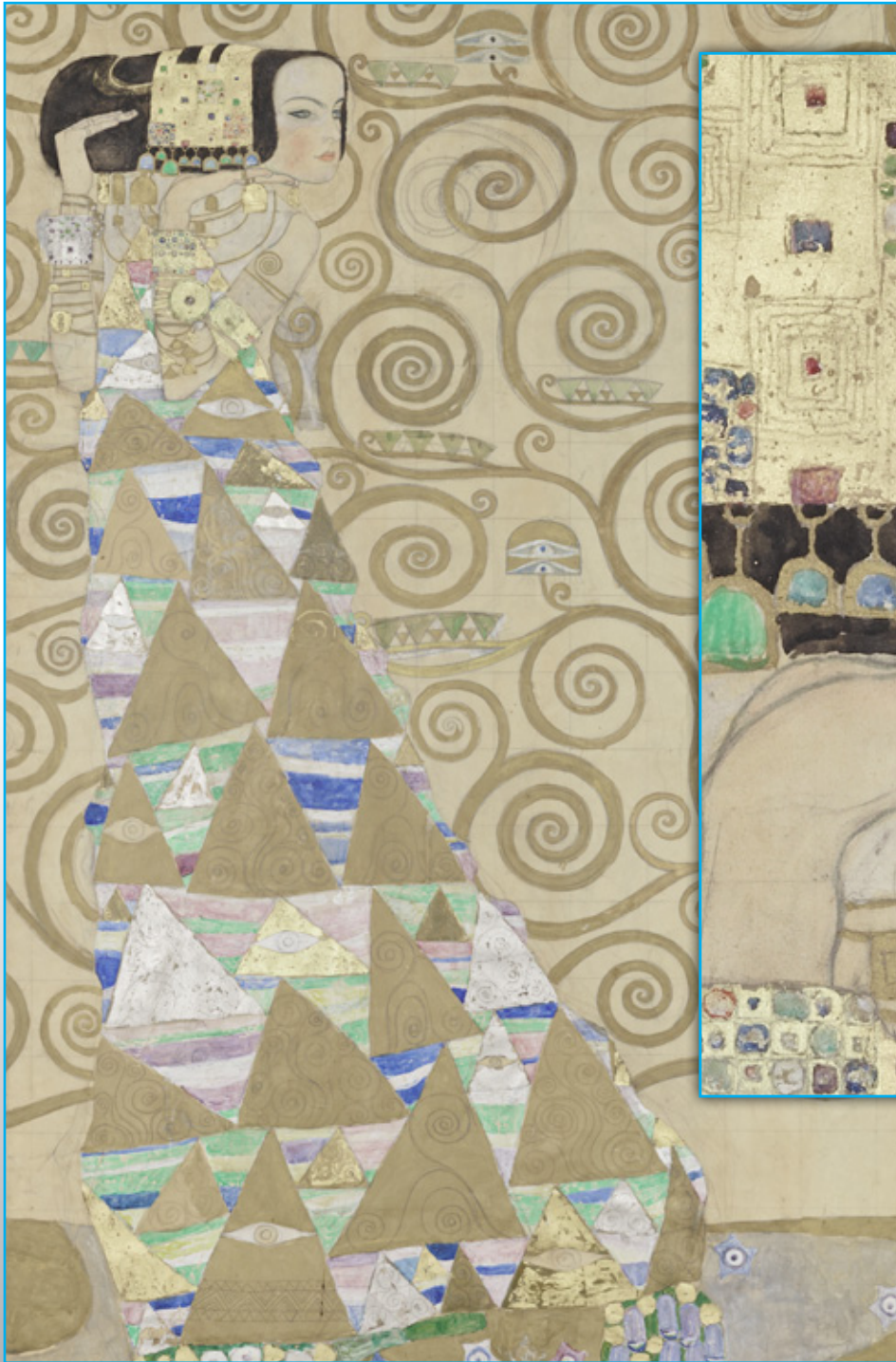
## Phase One Software Development Kit

The Phase One SDK provides a set of tools which enables building custom applications for image capturing and processing with Phase One camera system files.

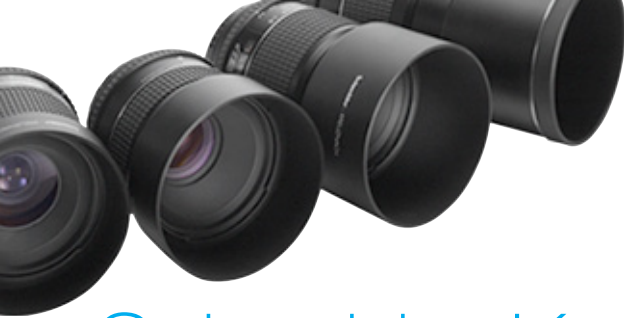
With the Phase One SDK, your developers have a high degree of control over capture and processing parameters for images produced by Phase One camera systems. For instance, you can set accurately timed capture intervals and batch process a set of files with specific parameters (e.g. exposure + 1, white balance at 5500 Kelvin).



Capture One



Reproduction



# Schneider-Kreuznach Digital Leaf Shutter Lenses

Schneider-Kreuznach leaf shutter lenses are manufactured with precision and designed for ultimate image quality, performance and durability.

	Schneider-Kreuznach Leaf Shutter AF 55 mm f/2.8	Schneider-Kreuznach Leaf Shutter AF 80 mm f/2.8	Schneider-Kreuznach Leaf Shutter AF 110 mm f/2.8	Schneider-Kreuznach TS 120 mm f/5.6 Aspherical	Schneider-Kreuznach Leaf Shutter AF 150 mm f/3.5	Schneider-Kreuznach Leaf Shutter AF 240 mm f/4.5
<b>Angle of View</b>	64°	47°	29°	8° tilt, 12 mm shift, 360° on two axes	26°	16.5°
<b>35 mm focal length equivalent (with 80 and 60 MP sensors)</b>	35 mm	51 mm	71 mm	77 mm	96 mm	149 mm
<b>Min. Focusing Distance</b>	45 cm / 1.47 ft	70 cm / 2.3 ft	90 cm / 2.9 ft	0.84 m / 2.76 ft	150 cm / 4.92 ft	170 cm / 5.58 ft
<b>Max. magnification ratio</b>	0.18 x	0.15 x	0.16 x	0.16 x	0.12 x	0.17 x
<b>Dimensions</b>	77.6 x 86.5 mm / 3 x 3.4 in	64.4 x 86.5 mm / 2.5 x 3.4 in	83.3 x 86.5 mm / 3.2 x 3.4 in	135 x 106 mm / 5.31 x 4.17 in	87.1 x 86.5 mm / 3.4 x 3.4 in	169 x 104.5 mm / 6.7 x 4.1 in
<b>Filter thread size</b>	72 mm	72 mm	72 mm	Bayonet VIII	72 mm	86 mm
<b>Weight</b>	600 g / 1.3 lb	500 g / 1.1 lb	700 g / 1.5 lb	1110 g / 2.44 lb	652 g / 1.43 lb	1600 g / 3.53 lb





# Phase One Digital Lenses

Phase One's entire range of digital lenses are fully integrated and fully compatible with the iXR camera system.

Phase One Digital AF 28 mm f/4.5 Aspherical	Phase One Digital AF 35 mm f/3.5	Phase One Digital AF 45 mm f/2.8	Phase One Digital AF 80 mm f/2.8	Phase One Digital MF 120 mm f/4.0 Macro	Phase One Digital AF 120 mm f/4.0 Macro	Phase One Digital AF 150 mm f/2.8 IF	Phase One Digital Zoom AF 75-150 mm f/4.5
102°	90°	74°	47°	33°	32°	26°	50°- 26°
18 mm	22 mm	29 mm	51 mm	77 mm	77 mm	96 mm	48-96 mm
35 cm / 1.15 ft	35 cm / 1.15 ft	45 cm / 1.4 ft	70 cm / 2.3 ft	40 cm / 1.3 ft	0.37 m / 1.21 ft	100 cm / 3.3 ft	100 cm / 3.3 ft
0.15 x	0.16 x	0.13 x	0.15 x	1.00 x	1.00 x	0.19 x	0.09 ~ 0.16 x
136 x 90 mm / 5.35 x 3.54 in	62 x 84 mm / 2.4 x 3.3 in	49.5 x 77 mm / 1.9 x 3 in	51.5 x 80.5 mm / 2 x 3.2 in	111 x 83 mm / 4.4 x 3.25 in	107 x 91 mm / 4.2 x 3.6 in	120 x 85 mm / 4.7 x 3.3 in	145 x 86 mm / 5.7 x 3.4 in
Gelatin filter frame	77 mm	67 mm	67 mm	67 mm	67 mm	72 mm	77 mm
886 g / 1.9 lb	480 g / 1.05 lb	492 g / 1.08 lb	330 g / 0.7 lb	835 g / 1.8 lb	960 g / 2.12 lb	780 g / 1.7 lb	1114 g / 2.5 lb

# Accessories

Hand release cable  
Enables remote capture.



Power supply adapter  
Offers consistent power from wall socket.



Auto Extension Tubes  
Macro extension rings for extra magnification.



Remote triggering cable  
Connects between camera and remote triggering device.



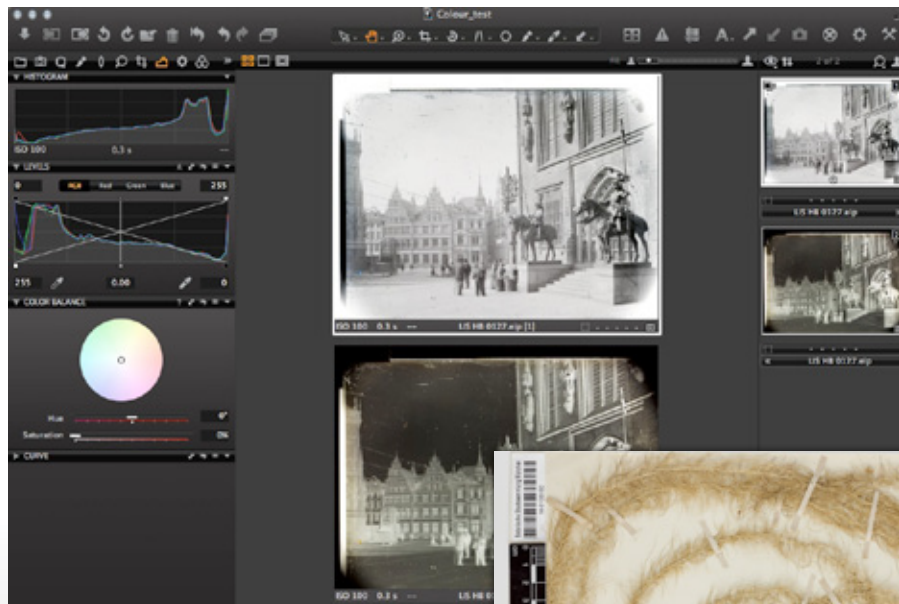
# iXR Camera Configurations

The Phase One iXR camera system is available in 80, 60 and 40 megapixel configurations. The iXR is also available as a stand-alone camera. Fully compatible with the Phase One IQ digital backs and lenses, and with limited functionality on Phase One P/P+ and Leaf Aptus-II digital backs, the stand-alone iXR camera is the perfect solution for those looking to upgrade their camera systems without replacing their existing Phase One digital backs and optics.

# Service and Support

Phase One takes pride in delivering superior service and support to ensure you unparalleled reliability that lets you stay focused on photography. Phase One offers 365 days round the clock support delivered online and backed up by our dedicated partners and a global support team.

Class Plates



Digital Archiving

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## About Phase One Industrial

Formed in 2011 Phase One Industrial is a division of Phase One dedicated to research, development and manufacturing of specialized industrial camera systems. Phase One Industrial camera systems are built specifically for industrial applications such as aerial photogrammetry, machine vision and fine art reproduction and provide advanced hardware and imaging software solutions that meet the unique requirements of their users.

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