




# IQ Digital Back Overview

	IQ180		IQ160		IQ140	
<b>Description</b>	World leading image quality with 80 megapixel full-frame resolution. Switch to Sensor+ and get 20 megapixel full-frame images as well as a faster workflow and ISO sensitivity up to 3200. Enjoy also the new, intuitive multi touch screen.		The IQ160 digital back is the optimal solution for the demanding photographer, offering 60.5 megapixel full-frame captures and a new multi touch screen with a fast and intuitive zoom, pan and browse function.		The IQ140 digital back delivers the perfect combination of world leading image quality and a fast workflow. The new multi touch screen provides complete intuitive control on set.	
<b>Sensors</b>						
<b>Lens Factor</b>	1.0		1.0		1.3	
<b>CCD size effective</b>	53.7 x 40.4 mm		53.9 x 40.4 mm		43.9 x 32.9 mm	
<b>Active pixels full resolution</b>	10328 x 7760		8984 x 6732		7320 x 5484	
<b>Active pixels Sensor*</b>	5162 x 3878		4490 x 3364		3658 x 2740	
<b>Pixel size (micron)</b>	<b>Full res.</b> 5.2 x 5.2	<b>Sensor*</b> 10.4 x 10.4	<b>Full res.</b> 6 x 6	<b>Sensor*</b> 12 x 12	<b>Full res.</b> 6 x 6	<b>Sensor*</b> 12 x 12
<b>Resolution (megapixels)</b>	80	20	60.5	15	40	10
<b>Light sensitivity (ISO)</b>	50 - 800	200 - 3200	50 - 800	200 - 3200	50 - 800	200 - 3200
<b>Exposure time</b>	1/10.000 sec. – 1 minute					
<b>Image quality</b>	16bit-OptiColor+, 12.5 f-stops and Lens+ technology					
<b>Capture time (frames per sec.*)</b>	0.7	0.9	1.0	1.4	1.2	1.8
<b>Image buffer</b>	1 GB Advanced high speed RAM					
<b>Display</b>	3.2" retina type multi touch screen with 1.15 megapixels 290 ppi(dpi) 16 million colors, 170° viewing angle					

\*) Maximum expected performance. The actual performance will be dependent on the camera model and on the camera and digital back capture modes. Content is subject to change without notice

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# IQ160 Camera System



## Nonstop Performance

The days when a photographer was waiting for the buffer to clear are over. The new Phase One IQ160 provides 60.5 megapixel full-frame photography - limited only by the media storage capacity.

The Phase One IQ160 provides the world's fastest tethered photography, as the IQ series is the first to support USB-3. This will allow the photographer to focus completely on the creative aspects of photography and let the Phase One IQ160 camera system handle the rest.

Enjoy the seamless compatibility between Phase One digital lenses or Schneider Kreuznach leaf shutter lenses and the Phase One 645 DF camera body, which in conjunction with the IQ160 will provide the optimal solution for the demanding photographer.

The new 3.2" multi touch screen lets you check images fast and easily navigate between menus and features.

The wide format display allows for a full 4:3 aspect ratio file image right next to important image information, such as the histogram.

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# IQ160 Digital Back Specifications



- 60.5 megapixel resolution for extreme detail level
- 645 full-frame CCD
- 15 megapixel Sensor+ resolution for higher light sensitivity and faster workflow
- Extreme 12.5 f-stops dynamic range
- 1.15 megapixel resolution 3.2" display with vibrant colors
- Multi touch screen functionality to pan, browse and zoom up to 400%

Inset image © Eugeni Pons

Imaging technology	
CCD	Full frame CCD
Lens Factor	1.0 / Full frame
Resolution	60.5 mega pixels
Active pixels	8984 x 6732 pixels
CCD size effective	53.9 mm x 40.4 mm
Pixel size	6 x 6 micron
Image ratio	4:3
Dynamic range	12.5 f-stops

IQ160 full resolution capture mode	
Resolution	60.5 mega pixels
Pixel size	6 x 6 micron
RAW file compression	IIQ large: 60 MB IIQ small: 40 MB
ISO	50, 100, 200, 400, 800

Sensor+ capture mode	
Resolution	15 mega pixels
Pixel size	12 x 12 micron
RAW file compression	IIQ large: 15 MB IIQ small: 10 MB
ISO	200, 400, 800, 1600, 3200

Output files	
Color depth	16 bit per color
Image file formats	All output formats of Capture One are possible: TIFF-RGB, TIFF-CMYK, JPEG
Color management	RGB, Embedded ICC profile, CMYK

LCD screen	
Size	3.2"
Resolution	1.15 megapixel retina type multi touch screen
Viewing angle	170°

Lighting	
Supports all photographic lights: Flash, tungsten, daylight, fluorescent, HMI	

Operating conditions	
Temperature	0° to 40°C (32° to 122°F)
Humidity	15 to 80% RH (non-condensing)

Computer minimum requirements	
Mac	Fast Intel Core™ 2 Duo or later CPU, 4 GB RAM, Fast HDD: RAID 0 configured systems for max performance, Nvidia 8800 series graphics card or newer
PC	Intel® Pentium® 4, 4 GB RAM, 64bit, 10 GB free hard disk space, IEEE 1394 interface, Windows XP®, Service Pack 3 or Windows Vista®, Service Pack 1

IQ back mounts	
Phase One/ Mamiya	Phase One 645DF/AF Mamiya 645DF/ AFDIII
Phase One H101	Hasselblad H1 and H2
Hasselblad V	Hasselblad 555ELD, 553ELX, 503CW and 501CM Via adaptor: Mamiya RZ67 Pro II Mamiya RB67
Contax	Contax 645AF

Wide angle & technical cameras	
4 x 5" via FlexAdaptor: Arca Swiss, Cambo, Linhof, Toyo, Sinar, Plaubel, Horseman.	

Storage files	
Phase Ones IIQ RAW file format speeds up the image capture and file transfer. It increases the storage capacity by turning the full 16 bit image data into a compact RAW file format. The default IIQ RAW-large format is completely lossless.	

Software	
Capture One 6.1 or later	

Certifications	
CE	

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# 645DF Camera Body Specifications



- Open platform for maximum choice and compatibility
- Durable, proven platform for secure operation
- Ergonomic handling and ease of use
- Use Phase One digital lenses, Mamiya AF/AFD lenses or Hasselblad V lenses
- Guaranteed up to 300.000 captures or 3 years (VA)
- Exposures from 1/4000s to 60 minutes
- Flash synchronization up to 1/1600 sec.

Shutter speed from 1/4000s to 60 minutes, extremely high flash synchronisation up to 1/1600 second to stop action with fast shutter speed or flash.

The mirror and viewfinder of the Phase One 645DF camera are almost three times larger than those of 35mm cameras, providing much greater control of focus and composition.

While hosting a complete list of features and custom functions, the Phase One 645DF camera is extremely easy to use. All settings important to the exposure are easily controlled by manual dials and soft buttons.

Camera type	Modular 645 AF SLR body
Lenses	Phase One Digital focal plane lenses, Schneider Kreuznach leaf shutter lenses and Mamiya 645 AFD lenses Compatible with Hasselblad V lenses
Backs	Open platform back mount
Auto focus	TTL phase-difference AF with 3 focus points Focus confirmation in manual mode Infrared AF assists for unfailing focus Auto focus lock for swift AF/ M shift
Shutter	1/4000s to 60 minutes Up to 2 fps Shutter speed bracketing
Flash	Focal plane shutter: Up to 1/125s Leaf shutter lenses: Up to 1/1600s' 1 <sup>st</sup> and 2 <sup>nd</sup> curtain flash synchronization X sync terminal and support for TTL flash
Light Metering	TTL metering (average, spot and auto) Programmable AEL button Exposure compensation: +/- 5EV
Mirror-Up	Electronically-activated by switch on grip

Viewfinder	Fixed prism viewfinder Exchangeable diopter from -5 to +3 LCD panel with full exposure information
Focusing Screen	Interchangeable focus screens Laser engraved mask for digital back Matte, Grid, Checker, Microprism
Selftimer	Self-timer from 2 to 60 sec
Remote	Screw-in cable release on shutter button Terminal for electronic triggering devices
Stop Down Preview	Stop down button on front of camera
Tripod Socket	1/4 inch and 3/8 inch included
Power Requirements	6 AA batteries (standard or rechargeable) External battery pack – 6 AA batteries External AC adapter
User configuration	3 Custom dial modes for capture settings 36 custom settings Customizable dials and buttons
Size	W, H, D // 6, 5, 7.2" // 153, 128, 184mm
Weight	35 oz. / 1030g. w/o batteries

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