

XF Camera Systems

Technical Specifications



PHASE**ONE**

what the world's best photography is made of

Imaging Sensor



Imaging Sensors

Digital Back Options	IQ3 50-100MP & IQ1 50-100MP with XF mounts (See specification for Digital Backs)
Backwards Compatibility	IQ1 & IQ2 with 645DF+ mounts

Controls & OS



XF Top screen

Tools

Bullseye Level
Focus Stack
Time-lapse
Profoto Flash
HDR Sequence

Displays

Histogram
Seismograph
Vibration Analysis
Flash Analysis

Camera OS

User Interface	OneTouch UI
Screen layouts	3 standard layouts
Custom Sets	3 configurations
Save and Load from CF	Camera Custom Sets Camera System Setup
Custom settings	80+ settings
User upgradeable via Back	Yes

Focus & Autofocus

HAP-1

Autofocus Sensor	HAP-1 1MP CMOS Sensor
Autofocus Processor	HAP-1 Processor with Floating Point Architecture
Autofocus Assist light	HAP-1 Precision White light
Hyperfocal Point Focusing	Yes
Upgradeable Autofocus configurations & Patterns	Yes
Autofocus modes	Spot, Average, Hyperfocal
Interchangeable focusing screens	Yes

HONEYBEE
AUTOFOCUS PLATFORM



Imaging software

Software



RAW converter	Capture One PRO 9 or newer
Tethered support	Yes
XF Camera Setup	80+ settings can be edited from Capture One
Workflow options	Sessions and Catalogues
Lens Corrections	Phase One Focal Plane lenses & Schneider Kreuznach Leaf Shutter lenses
Imaging Tools	25+
Local adjustments	Adjustment & Clone Layers
Batch output	yes, using recipes and multiple destinations
Output formats	8 & 16 bit TIFF-RGB, TIFF-CMYK, JPEG incl. XR/2000/QuickProof tm, DNG, PNG, PSD

Viewfinder



90° Prism

Waist level

	90° Prism	Waist level
Modular viewfinders on XF top screen		Yes
Frame Coverage	97%	97%
Exchangeable diopter	3 options	5 options
Diopter range	Range from -5 to +3	Range from -2 to +2
Default diopter magnification	-2.5 to +2.5	0
Collapsible diopter	No	Yes
Visible Exp. information	Yes	On XF Top screen
Focus Confirmation	Yes	On XF Top screen
Light Measuring	Yes	Yes (HAP-1)

Lenses & Shutters



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Lens Range

35mm Equivalent

	Lens Range	35mm Equivalent
Focal Plane lenses		8 lenses
Focal Length range	28mm - 150mm	17mm - 94mm
Leaf Shutter lenses		12 lenses
Focal Length Range	28mm - 240mm	17mm - 150mm
Legacy Lens support		60+ lenses

Shutter

Integrated Focal Plane shutter	Yes
Support for Leaf Shutters	Yes
Shutter priority selection	LS or FPS
Longest shutter time	60 Minutes
Fastest shutter speed	1/4000s
Flash sync speed focal plane shutters (max)	1/125s
Flash sync speed leaf shutters (max)	1/1600s

Capture & Light metering



Features

Frames per second	Variable following digital back
Capture Drive Modes	- Single - Continuous - Bracketing - Vibration delay - Delayed - Bulb - Toggle
Toggle Mirror-up	Yes
Capture from liveview	Yes
TTL Light metering	Average, spot and auto
HAP-1 Light Metering	used with waist level finder
Profoto Air TTL	Up to 6 groups
Flash Analysis Tool	Milliseconds / T5 and T1
Viewfinder black-out time	150ms (FPS), 400ms (LS)
AE Lock	Yes
Exposure compensation	+/- 5 EV

What's in the box



XF IQ3 Camera System

XF IQ1 Camera System

	XF IQ3 Camera System	XF IQ1 Camera System
Phase One XF Camera with Prism viewfinder	Yes	Yes
IQ Digital Back	Choice of 100MP, 80MP, 50MP	Choice of 100MP, 80MP, 50MP
Waist level viewfinder	Optional	Optional
Blue Ring Lens	Any Prime Lens	80mm LS f/2.8
Capture One Pro 9	Yes	Yes
Pelican Storm Carry On Case	Yes	No
F-stop Phase One flexible ICU	Yes	No
F-stop Phase One Laptop Sunshade	Yes	No
Charger for IQ3 and XF	Yes	Yes
3400 mAh Batteries	4	2
16 GB CF-Card and Reader	Yes	No
Gray Cards & LCC calibraton kit	Yes	Yes
Sensor Cleaning Kit	Yes	Yes
FW and USB cable	Yes	Yes
Focusing screen	Yes	Yes

Size & Weight



Dimensions (W x H x D)

Weight

	Dimensions (W x H x D)	Weight
XF Camera System* w/ 90° Prism viewfinder	152 x 135 x 160 (mm)	1390g
XF Camera System* w/ Waist level finder	152 x 173 x 160 (mm)	1020g
XF Camera Body w/o battery	152 x 108 x 85 (mm)	790g
IQ3 Digital back	98,5 x 88,5 x 62,3 (mm)	695g
90° Prism Viewfinder	68 x 52 x 152 (mm)	500g
Waist level finder	67 x 17 x 57mm (closed) 67 x 65 x 57 (open)	130g

* without lens

Battery

Battery	BP-911/914/915 3400 mAh
Powershare	IQ3 only
Battery Charger	Integrated
Support for USB 3 Charging hub (1.5 A)	IQ3 only
High capacity back interface	IQ3 only

Flash

Flash trigger	Integrated Profoto Air wireless
Flash Remote control	Profoto Air up to 6 groups
Wireless trigger range	20m (outside)
PC flash port	Back & Prism
Flash sync speed focal plane shutters (max)	1/125s
Flash sync speed leaf shutters (max)	1/1600s

IQ Digital Back range

Technical Specifications

IQ3



IQ1



IQ2



Specifications

	IQ3			IQ1			IQ2
	100MP	80MP	50MP	100MP	80MP	50MP	60MP Acromatic
Resolution	101 Megapixel	80 Megapixel	51 Megapixel	101 Megapixel	80 Megapixel	51 Megapixel	60 Megapixel
Long exposure	60 minutes	60 minutes	60 minutes	60 minutes	2 minutes	60 minutes	1 minutes
16 bit Opticolor+	Yes	Yes	n/a	Yes	Yes	n/a	n/a
Dynamic range	15 f-stops	13 f-stops	14 f-stops	15 f-stops	12.5 f-stops	14 f-stops	13 f-stops
Sensitivity (ISO)	50 - 12800	50 - 800	100 - 6400	50 - 12800	35 - 800	100 - 6400	200 - 3200
Sensitivity (ISO) - Long Exp.	50 - 12800	200 - 3200	100 - 6400	50 - 12800	n/a	100 - 6400	n/a
Sensor+ (ISO) - 1/4 res.	n/a	200 - 3200	n/a	n/a	140 - 3200	n/a	n/a
Lens factor	1	1	1,3	1	1	1,3	1
Sensor type	CMOS	CCD	CMOS	CMOS	CCD	CMOS	CCD
Sensor Size	53.7 x 40.4	53.7 x 40.4	44 x 33	53.7 x 40.4	53.7 x 40.4	44 x 33	53.7 x 40.3
Active pixels	11608 x 8708	10328 x 7760	8280 x 6208	11608 x 8708	10328 x 7760	8280 x 6208	8964 x 6716
Pixel size (micron)	4.6 x 4.6	5.2 x 5.2	5.3 x 5.3	4.6 x 4.6	5.2 x 5.2	5.3 x 5.3	6.0 x 6.0
Output image dim. 300 DPI	98.3 x 73.2 cm	87.4 x 65.6 cm	70.1 x 52.6 cm	98.3 x 73.2 cm	87.4 x 65.6 cm	70.1 x 52.6 cm	76.1 x 57 cm
Output image dim. 600 DPI	49.1 x 36.9 cm	43.7 x 32.8 cm	35.0 x 26.3 cm	49.1 x 36.9 cm	43.7 x 32.8 cm	35.0 x 26.3 cm	38 x 28.5 cm
Mount options*	XF, H	XF, H, V	XF	XF, H	P, H, V, C	P, H, V, C	P, H, V, C
3.2" Touch Display	Yes	Yes	Yes	Yes	Yes	Yes	Yes
High Bandwidth Interface	Yes	Yes	Yes	n/a	n/a	n/a	n/a
XF Powershare	Yes	Yes	Yes	n/a	n/a	n/a	n/a
Wi-Fi 802.11 n	Yes	Yes	Yes	n/a	n/a	n/a	Yes
Captures per second	14-bit	16-bit		14-bit	16-bit		
Focal Plane (Full res.)	1,4	0,7	0,8	1,8			0,9
Focal Plane (Sensor+)	n/a		1,1	n/a			n/a
Leaf shutter (Full res.)	1.2	0,7	0,7	1,4			0,8
Leaf shutter (Sensor+)	n/a		1	n/a			n/a

Images

IQ3 100MP © Alexia Sinclair IQ3 80MP © David LaChapelle IQ3 50MP © Anja Poulsen IQ1 100MP © Vincent Lionis

Mount options*

XF: XF, DF+ and DF H: Hasselblad H1 and H2 C: Contax 645AF
 P: DF+ and DF V: Hasselblad V-series

XF Camera System

Feature Differentiation

Sensor Choices

XF Camera System Feature Differences	XF IQ3 Camera System	XF IQ1 Camera System
CMOS Range	100MP 50MP	100MP 50MP
CCD Range	80MP	80MP
CCD Achromatic (IQ2)	60MP	

Sensor Core Technology

	IQ3 100MP	IQ1 100MP
IIQ L 16 Bit	Yes	CMOS only
Long Exposure	Yes	No
HDMI	IQ3 100MP	No
Electronic Shutter (ES)	IQ3 100MP	No

Tools & Features

	Yes	No
Capture from Live View	Yes	No
Exposure Calculator	Yes	No
XF Camera Controls from Home screen	Yes	Yes
XF Camera Controls from Tool view (inside play)	Yes	No
XF Camera Controls from Camera Menu	Yes	No
XF Camera Menu with settings for XF	Yes	No
Exposure Zone Tool	Yes	No
Clip Warning Tool	Yes	No
Auto ISO and ISO control	Yes	No

Storage & Connectivity

	XF IQ3 Camera System	XF IQ1 Camera System
Integrated Wi-Fi	802.11n	No
USB 3	Yes	Yes
Firewire 800	Yes	Yes
Flash Sync port	Back and Prism	
High capacity back interface	Yes	No
Storage Media	UDMA 7, CF-card slot with spring loaded cover	
Secure Storage System	3S Technology	
Tripod socket	1/4 inch & 3/8 inch	
Storage Engine	1GB Image buffer	

Power

	Yes	No
Power Share with hot pluggable batteries	Yes	No
Full system power via XF Power Supply	Yes	No
Advanced Battery Status indicators	Yes	No
USB3 Charging from Hub(1500mA)	Yes	No

Flash

Flash trigger	Integrated Profoto Air Wireless
Wireless trigger range	20m (outside)
Back flash sync	Yes
Flash sync speed focal plane shutters (max)	1/125s
Flash sync speed leaf shutters (max)	1/1600s
Flash Remote Control	Profoto Air up to 6 groups

Warranty

Warranty:	XF IQ3 Camera System	XF IQ1 Camera System
5 Year Warranty	Yes	No
5 Year Uptime Guarantee	Yes	No
Free lens choice upon purchase	Yes	No

Packaging

	Yes	No
Pelican Sorm Case (Watercase with handle and wheels)	Yes	No
Modular F-stop ICU for camera system	Yes	No
Laptop compartment with Build in Sunshade (Tether station)	Yes	No
Card Reader and CF card	Yes	No
Lens Calibration plate	Yes	No
2 batteries	Yes	No
Tech camera sync cable	Yes	No

Operating Requirements

Temperature	0° to 40° C 32° to 104° F
Humidity	0 to 80 % (non-condensing)