



Polaroid x530

EVERYTHING THAT'S BEEN MISSING FROM DIGITAL IMAGES.



The Polaroid x530 – a camera like never before.

It's the world's premier digital image-maker, creating pictures with a quality that has never been seen before! This has all been made possible by the Foveon X3® direct image sensor which, based on the colour film principle, captures all the colour information in three pixel layers, and a newly-developed chip: the ASF19. As a result, colour is reproduced naturally on each pixel location and the signal is converted with total precision into image information. This method differs from all other digital cameras, where several pixel locations were used to calculate the signal.

This development also marks the end of an era where a digital camera could only generate either good pictures or good videos. With video in TV, framesize equivalent to a resolution of 640 x 480 pixels, the Polaroid x530 stands out from the crowd in every respect. If a picture doesn't quite work because of difficult lighting, unique image editing software "Polaroid PhotoLab" can be used on the home PC and in conjunction with the Foveon X3® Fill Light Tool. With this tool, sensational

results can be achieved without any prior knowledge of image editing. What's more, the x530 also offers an image editing menu which enables pictures to be edited directly on the camera, right there on the spot. Alongside this revolutionary technology, the new Polaroid has another string to its bow – a tailor-made lens with ten elements and a focal length of 7.3 mm – 21.9 mm, which corresponds to a range of 36 mm – 107 mm on a 35 mm camera. The triple optical and quadruple digital zoom is sharp from just 1 cm in Macro mode. Exposure is automatic or manual at 100, 200 or 400 ISO, with or without integrated flash and red eye reduction. The picture settings Auto, Portrait, Landscape, Sport and Night ensure that every snapshot is spot-on.

The film is replaced by the SD memory card, which can hold up to 30 images on a 32 MB card.



SPOTLIGHT ON THE PIXEL – FOVEON X3® TECHNOLOGY

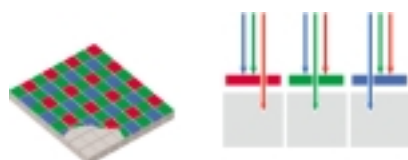


An innovation, a sensation, a new revolution – the Foveon X3® direct image sensor. For the first time in the history of digital photography, complete colour information is now available to every single pixel location.

Previously, digital images have generally not been as sharp, as true-colour or as contrast-rich as analogue pictures. Despite this, digital photography has revolutionised photography thanks to simple handling and a wealth of possibilities.

In conventional digital cameras, each individual pixel location on the sensor can record only one of the primary colours: red, green or blue. The actual colour

needs to be calculated from several neighbouring pixel locations and interpolated. The result of this interpolation can be picture noise, false colours and colour artefacts. In order to conceal these undesirable image quality problems, conventional digital cameras contain blurring filters which mask the problem areas by blurring the entire image. Therefore it was considered that the numbers of pixels were crucial to capture a quality digital image.



Conventional image sensor

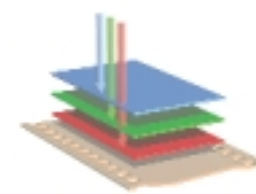
The Polaroid x530 started a revolution – bringing the image quality advantages of colour film with all the benefits of digital photography. With the Foveon X3® direct image sensor, this technology is now being used for the first time anywhere in the world in a Point&Shoot* camera, the Polaroid x530.

The Foveon X3® direct image sensor uses three layers of pixels within a single layer of silicon. Similar to the

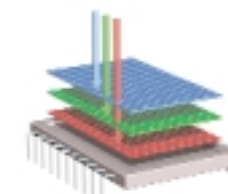
principles used with colour film, each layer of pixels captures a primary colour in accordance to the wave length of light thus capturing 100% of the red, green and blue light.

By recording 100% of the colour at each point in the image, there is no need to perform the error prone calculation of colours.

* A Point&Shoot camera is a digital camera that has a built-in lens and stores image formats such as JPEG, X3F and Tiff.



Conventional colour film



Foveon X3® direct image sensor

100% blue
100% green
100% red



The result -

- >> Sharp Images
- >> True colours
- >> Outstanding images

REALITY INSIDE – THE ASF19 SIGNAL PROCESSOR



Everything a pixel needs

The ASF19* signal processor – the heart of the Polaroid x530. With its unique architecture, it links the camera's sensor and main processor. This means that the advantages of the Foveon® direct image sensor can now experience their world premiere in a Point&Shoot camera!

The main task of the ASF19 is to ensure brilliant images. The principle behind it is incredibly straightforward.

It receives 100% of the colour, contrast and sharpness information from the sensor and analyses it pixel by pixel.

The 100% complete image information is output via the main processor. It offers two formats for this – X3F and JPEG.

* ASF19 is a development of World Wide Licenses Ltd.

The result – printouts in superlative quality

The final picture printouts are every bit as brilliant as the images they represent. The new technology facilitates printouts that are comparable with the level of quality familiar from conventional photo proofs.

The trend towards the development of digital images is continuing, and the Polaroid x530 is now setting the new standard. That's because the picture printouts are every bit as fantastic as the technology behind them. With the x530, it is finally possible to create digital photographs that can withstand comparison with the quality of conventional photos. Proofs of up to DIN A4 size deliver breathtakingly sharp details, brilliant colours and total balance.



PUTS LIGHT IN HARMONY.

The Polaroid PhotoLab software with the Foveon X3® Fill Light Tool and the x530 on-board image editing function

The Foveon® X3 Fill Light tool - a unique feature that gets the best out of every picture. Images that previously would be consigned to the bin can now be rescued!

Poorly-lit areas of a picture, taken in difficult lighting conditions, are made visible once again with the Foveon X3® Fill Light Tool, and without any loss of detail in properly exposed areas of the image.

It's fast and easy on the PC or Mac, and no prior knowledge of image editing software is required.

Creativity – even without a computer. Using the on-board image editing function and navigation keys, pictures can be rotated, sections cropped, frames positioned or postcards created with special effects. White balance, illumination with colours per channel and red-eye effects can also be edited. The enhanced photo can then be printed out at the photo lab or via direct print on the home printer.



Original image

Image edited with Foveon X3®
Fill Light Tool



On-board image editing menu

UNIQUE PICTURES EVERY TIME



Capture programmes and short-cut functions
on the Polaroid x530.

Extremely demanding – the optical features of the Polaroid x530.



The lens

Photographs can be taken from near and far on the x530, thanks to a specially-developed lens. It comprises 10 elements. The focal length is 7.3 mm – 21.9 mm, which on a 35 mm camera would equate to a focal length of 36 mm – 107 mm. The brightness in wide-angle mode is 2.6 – 7.58, and in telefocus mode 3.4 to 9.89. The mechanical shutter speed is 1/1000 sec. maximum and is combined with the electronic shutter.



Focus

Superlative sharpness is guaranteed in the macro range from just 1 cm – thanks to the special lens construction comprising 10 elements. In normal mode, the x530 is sharp from 30 cm. Focusing can be carried out manually or automatically.



Viewfinder

The viewfinder is a high-resolution 2.0" TFT LCD display and, as with conventional cameras, an optical real-image finder. The optical viewfinder alters the picture section in accordance with the zoom setting.



Short-cut functions

Find the key camera settings without any need for tedious searching in the menu: ISO setting, focus mode, lighting correction, resolution and file formats can all be chosen in a single action.



Manual lighting setting

Total control over your picture – it can be centred, exposed as a matrix or spot; the lighting balance lies in the range of +2 to –2 in 1/3 steps. The ISO number can be adjusted to Automatic, 100, 200 or 400. Instead of automatic white balance, you can take your photographs manually in daylight, cloudy, tungsten lighting, fluorescent lighting or black/white mode.



Sport automatic

The camera chooses a short shutter time and automatically selects the right aperture setting. This means that details of moving objects can be captured with sharpness or blurring, depending on the effect you want to create.



Automatic mode

This mode is self-explanatory – just point and shoot. The camera will automatically take care of the right settings.



Portrait

Anyone making eyes at the Polaroid x530 in portrait shots will be a real eye-opener – the camera chooses a larger aperture setting for less depth sharpness. The image is thus elevated from the blurred background, just like in professional portrait shots.



Night mode

Images in the foreground are flashlit, while the background is captured with sharpness thanks to a longer illumination time. This means that both the foreground and the background are illuminated correctly, even at night.



Landscape

In landscape mode, the camera automatically selects a small aperture setting and the appropriate shutter speed. The result is beautifully sharp landscape shots.



Macro

Ensures superlative sharpness. Even in close-ups from one centimetre, the macro setting delivers perfect pictures.



Video mode

Before filming video with sound, the white and lighting balance and zoom can be adjusted individually.

Good pictures are all a question of technology:

Image sensor:	Sensor: Foveon X3® direct image sensor, 4.5 Megapixels (R+G+B in three layers) Height: 1/1.8" Colour filter: direct image sensor Aspect relationship: 4:3	Capture quality:	High resolution: 2432 x 1842 in JPEG 1420 x 1060 x 3 in X3F Normal resolution: 2048 x 1536 in JPEG Low resolution: 1408 x 1056 in JPEG Compression: Super-fine, fine and normal
Master process:	ASF19 WWL	Video mode:	Resolution: 640 x 480, 10 – 15 images/second, 320 x 240, 30 images / second with sound and zoom default setting
Camera speed*:	Trigger delay: 0.3 seconds With focusing: 1.5 seconds Picture to picture: 5.5 to 6.8s (JPEG), 11s, (X3F) * Depending on picture motif and firmware version	File format:	Photo file format: JPEG and X3F (RAW) Video file format: Motion JPEG
Objective:	Lens and structure: 10 elements, of which 3 are aspherical Focal length: 7.3 mm ~ 21.9 mm Equivalent 35 mm: 36mm ~ 107mm Brightness: Wide-angle: 2.6 ~ 7.58 Tele: 3.4 ~ 9.89 Shutter speeds: 1 to 1/1000 seconds	Flash unit:	Flash light: IGBT flash with pre-flash function (Auto, on, off, red-eye reduction) Range: 0.7m ~ 3m
Zoom:	Optical zoom: 3x Digital zoom: 4x	Interfaces:	TV output: NTSC / PAL Connection: USB 1.1
Focusing:	Focus: Automatic or manual Macro mode: 1cm Normal mode: 30 cm ~ infinity AF systems: Central measuring point AF auxiliary light: Yes	Power supply:	Lithium-ion battery and power supply unit with charge function
Lighting:	Variations: Centred, matrix, spot Corrections: From +2 to -2 in 1/3 steps ISO: Automatic, 100, 200, 400 White balance: Automatic / manual (daylight, cloudy, tungsten, fluorescent, black/white)	Further advantages:	Auto-timer: 2 or 10 seconds Microphone: Yes Loudspeaker: Yes On-board image editing: Red-eye reduction, section cropping, white balance and colour correction per channel, picture rotation Software: Polaroid PhotoLab with Foveon X3® Fill Light Tool
Lighting control:	Picture mode: Sport, portrait, landscape, night, macro Photo effects: Vivid, neutral, sepia, black/white, red, green, blue	Miscellaneous:	Dimensions: 105 x 71 x 61mm Casing: Plastic Weight: 300g with battery
Viewfinder / monitor:	Viewfinder: Optical real-image zoom viewfinder with 7 elements Colour display: 2.0" TFT LCD display	Accessories:	As standard: Comprehensive software package, battery with charger unit, 32 MB SD memory card with USB 2.0 memory card reader, neck strap, USB and AV cable.
Memory:	Internal memory: 16 MB for processing External memory: SD memory card (8 – 512 MB), 32 MB included with USB 2.0 card reader	System requirements:	Operating system: Win 98SE, Win 2000, Win ME, Win XP, Mac OS 9.2.1 or later Mac OS 10.1.3 or later.

All the technical data at a glance, as at 09/2004

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