



Backgrounder

New Konica Minolta Single Lens Reflex (SLR)-type Digital Camera: The DiIMAGE A2

Konica Minolta Photo Imaging U.S.A., Inc.'s new DiIMAGE A2 8-megapixel digital camera builds on the success of the highly acclaimed DiIMAGE A1 digital camera. This second generation SLR-type digital camera includes these key features:

Product Highlights

- 8-megapixel interlace scan CCD captures superb-quality, detail-rich images—good enough to be enlarged and printed out up to 11 x 14 inch size at 200 dpi. Images can be captured in 8-, 5-, 3-, and 2-megapixel resolutions.
- Super Fine EVF has the clarity of a 922,000-pixel TFT LCD monitor, variable frame rates of 30 frames per second or 60 frames per second, and 90-degree tilting for low-position shooting.
- Anti-Shake function enables the CCD to stabilize the image if the photographer's hands move when photographing, offering unrivaled stability at up to 3 shutter speeds slower than on cameras without an Anti-Shake function.
- A superior focusing system with 3D autofocus (AF) is excellent at tracking a moving subject. The DiIMAGE A2 boasts the fastest focusing speed* among 5 or greater megapixel SLR type digital camera with a non-interchangeable lens. (*As of December 1st, 2003)
- The DiIMAGE A2 also features high-quality movie recording at 544 x 408 pixels with audio at 30 frames per second, a resolution that looks great when viewed on a TV screen. And the bundled video editing software turns photographers into movie makers.
- New preview mode lets photographers check depth of field.
- New 3:2 aspect ratio for 35mm film proportions.
- New 1.5x teleconverter and 0.8x wide converter lenses (sold separately) provide additional creative possibilities.
- PictBridge support for printing

Features:

8-Megapixel 2/3-Type Interlace Scan CCD

The DiIMAGE A2 has an 8-megapixel, 2/3-type interlace scan CCD. Imagine the clarity of 8.04 million effective pixels: even individual hairs or the stitches of a suit can be captured in sharp detail. These incredibly detailed images can then be transferred and printed onto 11 x 14-inch size paper at 200 dpi.

The high pixel count means unprecedented power for digital zoom and clarity of cropped prints. The superior color reproduction is due to the use of a primary color filter, just one more feature that contributes to pictures of the highest quality.

3D Autofocus (AF) System

With 3D AF users can capture sharp, high-quality images of a moving object, even if the subject is coming right at them. Konica Minolta's innovative subject tracking algorithm continues focusing on the subject as it moves along the X, Y, and Z-axes of the picture frame. When the shutter release button is pressed, the 3D AF launches the camera's 3D Predictive Focus Control, which activates the built-in algorithm that compensates for the time lag between shutter release and image capture to ensure that the final result is predictably captured in crisp focus. Konica Minolta has included 8-megapixel reading at a higher frame rate, and better sequencing in the software, delivering the fastest AF speed in its class.*

**As of December 1st, 2003*

Flex Focus Point (FFP)

FFP expands the versatility of the autofocus (AF) system. When the camera is attached to a tripod or when the position of the focal plane is critical as with close-up photography, the use of autofocus systems is limited since the camera must be moved to focus and then repositioned to compose the image. FFP, a single crosshair sensor, can be placed anywhere within the field of view. With the camera on a tripod, the four-way key of the controller can be used to fix the FFP on the subject, using the AF system for each exposure. With the subject selected with the FFP, photographer's can use spot metering.

Super Fine EVF

The high-density display (922,000-pixel TFT LCD) developed for the DiMAGE A2 is superior to the previous 235,000-pixel EVF of earlier models because it uses 4 times as many pixels. The DiMAGE A2 EVF delivers clear and sharp images and is easy to focus. In addition, it can be perfectly viewed at up to a 32° angle, so one glance provides all the information needed to take the perfect picture. The camera's EVF boasts other benefits, including subject visibility in dark places, the ability to check exposure and other settings before shooting, the ability to check various information when composing a picture, and tilting for low angle photography.

The DiMAGE A2 viewfinder has two modes for switching menus. The first is the High-Precision mode (30 frames per second), which allows for very precise adjustments to focusing and frame composition by utilizing the high resolving power of the 30 frames per second rate as seen on the 922,000-pixel viewfinder. Now, photographers can be incredibly precise when adjusting manual shots like macros and portraits that require very careful focusing. Focusing is simple and accurate, without the need to enlarge the image. The second mode is the Smooth mode (60 frames per second), which increases the frame rate to half that of the image resolution. The high frame rate makes the viewfinder extremely easy to use, especially when shooting moving targets such as school sports, athletic competitions, and major sporting events.

Direct Manual Focus

The DiMAGE A1 incorporates Direct Manual Focus (DMF) – a feature found in professional-level 35mm film cameras such as the award-winning Minolta Maxxum 7. After the AF system has focused and locked on the subject, the focus can be fine-tuned manually.

Flex Digital Magnifier (FDM)

Any part of the LCD monitor image can be enlarged with the FDM function to precisely check the manual focus adjustments or direct manual focus. The magnification level is 3.3x, and while the monitor image is magnified the user can scroll in any direction to check any part of the frame. Its advantages for macro-shots are clear and the added accuracy meshes well with the manual focusing option and DMF functionality.

Advanced LSI Provides Optimal Images

Because every photographic scene is different and requires a different kind of image processing, the DiMAGE A2 has an advanced LSI. This built-in electronic circuit optimizes white balance, contrast, and color reproduction with exceptional accuracy, while effectively suppressing noise that tends to occur in the low-contrast areas of digital images. And its energy efficiency also extends the battery time.

Konica Minolta GT Lens and Anomalous Dispersion (AD) Glass

Designed specifically for digital photography, the GT lens is an all-glass apochromatic (APO) zoom lens. The benefits for the user are obvious: pictures come out sharp, clear, and absent of any color aberration, even when using the large aperture setting. And this GT lens has 16 elements in 13 groups. The anomalous dispersion (AD) glass contributes to things like suppressed distortion, reduced flare, and chromatic aberration, while aspheric glass elements work to make the lens compact. The camera's improved optical low pass filter and the logical arrangement of the lens make for higher productivity and quality-assurance in the manufacturing process and ensure that the lens is suitable for an 8-megapixel CCD.

CCD Shift-Type Anti-Shake Function

Konica Minolta's Anti-Shake function gives users a highly effective way to shoot high quality hand-held telephoto shots as well as dim light photography. Users can expect better images in low light conditions without relying on a higher ISO setting or a tripod. The DiMAGE A2 features a proprietary CCD-shift mechanism to stabilize images by offsetting the shaking pattern of the user's hand. This gives unrivaled stability at up to 3 shutter speeds slower than on digital cameras without an Anti-Shake function. This Anti-shake technology can offset two kinds of shaking – high frequency shaking of muscles and low frequency shaking of the body.

Konica Minolta CxProcess™ II

The camera's new image-processing technology – CxProcess II – controls the essential image qualities of color, contrast, and sharpness while minimizing noise. Brilliant saturated color remains vibrant without becoming unnatural or flat. Subtle contrast is rendered to retain the richness and depth of the subject while preserving details in the highlights and shadows. Sharpness is controlled by balancing resolution with acutance to show fine details while minimizing hard, unnatural edges. Dark noise can be reduced with exposures of one second or longer with the noise-reduction menu option.

Movie Recording

The DiMAGE A2 also has a movie recording function that allows users to film in a variety of scenes and lighting conditions, and smoothly, thanks to the camera's Anti-Shake function, which is available at all focal lengths. And with the ability to record at 544 x 408 pixels with audio at 30 frames per second, a resolution looks natural when viewed on a TV screen. The 7x built-in optical zoom lens covers a focal distance of 28 to 200mm, while the Night Movie function makes subjects easily visible even in dark settings. In addition, the DiMAGE A2 comes bundled with fun-to-use video editing software. The Video Studio 7 SE by ULEAD is perfect for video editing from analog and digital image import, outright editing, and output to video CD.

Real-time Histogram

Unique to digital imaging, the DiMAGE A2's real-time histogram shows the luminance distribution of the image before it is captured. Displayed with the live image, the histogram allows the subject brightness and contrast to be evaluated to optimize the camera's exposure and

contrast controls. The luminance distribution of recorded images can be checked with playback histogram.

Tele/Wide Macro Imaging

With a maximum zoom of 0.7x (in telephoto mode), users can shoot a 1.6 x 1.2 inch object and completely fill the screen. This gives an optimal working distance of 5 inches so users can shoot close-ups of insects without scaring them away.

Ultra High-Speed Continuous Shooting

When a photographer really needs to fire off as many shots as possible in a limited amount of time, they simply turn the dial to UHS (Ultra High Speed) mode to set the camera to capture images at a rate of approximately 7 frames per second. These images can be captured in JPEG, VGA format.

Aspect Ratio of 35mm Film*

The DiMAGE A2 uses the same aspect ratio as 35mm film, so when users see the images they have taken with a 3:2 aspect (horizontal and vertical) ratio, pictures appear as if taken on 35mm film. This allows traditional film users to compose and take pictures the way they are used to.

**Available only in the 3,264 x 2,176-pixel mode.*

Raw + JPEG Function Allows Editing on a PC

A RAW image for best picture quality and a JPEG image for viewing can be recorded at the same time, making for better handling of large images on a PC or LCD monitor. Because RAW images containing large amounts of data cannot be enlarged and displayed on a PC or LCD monitor, the JPEG image recorded at the same time is used to display the enlarged image. This function is convenient for applications such as checking focus.

Digital Effects Control (DEC)

The Digital Effects Control (DEC) is an image-processing center built into the DiMAGE A2. Contrast, color, and saturation can be adjusted before the image is captured to maximize image data at the scene. Contrast expands or contracts the tonal range to match the subject contrast. Saturation accentuates or subdues colors. The Filter effect controls the overall color of the image. When taking color images, the filter can affect the mood of the picture by making it cooler or warmer in eleven levels. When used with black-and-white images, the filter creates a warm or cool toned image similar to sepia or gold toners with photographic prints as well as the unique tones of magenta and green. Ten built-in tones are available.

To guarantee the correct level of adjustment is made with the DEC, a Digital Enhanced Bracket can be made, a series of images with a slight increase and decrease in the quality selected. A photographer simply selects the bracketing drive mode and the image quality to be bracketed. The camera will automatically make a three-image bracket of the selected quality.

Digital Subject Program Modes

The camera's Digital Subject Program modes optimize exposure and image-processing controls for specific shooting conditions and subjects. Simply select the appropriate Digital Subject Program and the camera is ready to shoot. Four subject programs are available:

- Portrait: optimized to reproduce warm, soft skin tones and a slight defocusing of the background.
- Sports action: to make clear, sharp images of fast moving subjects.
- Sunset: optimized to reproduce rich, warm sunsets.

- Night portrait: for deep, subtle night scenes. When used with the built-in flash, the subject and background exposures are automatically balanced.

Six Color Modes

Chose from one of six color modes on the DiMAGE A2: Vivid Color, Natural Color, Adobe RGB, Adobe RGB (ICC), Solarization, and Black & White. To add even more effects, combine a color mode with another function, such as DFC.

Adjustable ISO Settings

The automatic sensitivity gain function built into the DiMAGE A2 improves image quality with dark scenes or during flash photography. Should photographers wish to set sensitivity manually, they can choose from among the many ISO-equivalent values up to 800.

Rapid Data Transfer

The DiMAGE a2 features a high-speed data transfer protocol of USB 2.0. This data transfer system is a fast, convenient way to upload large amounts of image data into a PC quickly.

Optional Converter Lenses for Additional Range

The 1.5x Tele Converter and the 0.8x Wide Converter give an optical zoom range of 24.4 to 400mm. Anti-Shake function covers all focal lengths to ensure ease of use.

Direct Camera-to-Printer Printouts

The DiMAGE A2 can printout photos directly to a PictBridge*-compliant printer without having to go through a personal computer.

** PictBridge is an industry standard established by the Camera & Imaging Products Association (CIPA).*

User-Friendly DiMAGE Viewer Software

As with Konica Minolta's other DiMAGE cameras, the DiMAGE A2 is equipped with the user-friendly DiMAGE Viewer. This intuitive software makes it easy to manage, edit, and perform other tasks images. It displays thumbnails for quick confirmation, plus EXIF data and any included comments. Users can copy, move, or rename images.

Various image compensation tools are provided, such as tone curve and histogram for still images, along with flicker reduction for movie clips. RAW data can be imported to make fine adjustments on uncompressed image data. The DiMAGE Viewer also has advanced color management tools to ensure faithful color reproduction of each shot. Accurate color conversion is possible with monitors, printers, and application software that supports ICC profiles.

DiMAGE Capture Software

This flexible software option is perfect for the studio photographer. DiMAGE Capture lets users control the DiMAGE A2 from a connected Windows® PC. Not only does it enable access to all of the major camera functions, from exposure compensation and White Balance control to the real-time histogram display and more, but also all viewfinder information can be checked on the PC monitor. Combining the DiMAGE Capture program with the DiMAGE Viewer is the most efficient way to shoot, transfer, and process a large volume of images in one session.