

The Fotex F10 digital camera

Fast, high-quality image capture
for today's digital world



The right tools for the job

We at Dainippon Screen want you to find just the right tools for your work, tools that will help you not only expand your capabilities, but which will be the most efficient and cost-effective for your workflow. Whether your business is in commercial photography, prepress or printing, you need the best possible tools for fast, high resolution image capture.

The Fotex F10 digital camera back from Dainippon Screen gives you the professional image quality you need and is as easy to use as a conventional view camera. Best of all, even if you are incorporating digital photography into your business for the first time, you will find the Fotex F10 easy to integrate into your existing workflow.

Speed and quality — the keys to success

The Fotex F10 is an amazingly fast 3-shot camera. It can capture a high resolution image in under five seconds — the fastest in the world! And the quality of the data is so good that a 4" x 5" photo can be enlarged to A4 size for printing at a 175 lpi

screen ruling. Used in conjunction with the innovative ColorScope Pro color conversion software the Fotex F10 will give you top quality CMYK image data that you can rely on, at speeds that will dramatically boost your productivity.

The Fotex F10 is a high end digital camera back with a superb light sensor — a 2,048 x 2,048 pixel CCD array that captures 12 bits of color data per pixel*. By using an internal filter wheel and a 3-shot RGB exposure system, the CCD can generate high enough resolution for nearly any commercial printing application. But unlike other digital camera backs in its class, the Fotex F10 captures all three colors in under five seconds.

Let's take a look at how the Fotex F10 can help you complete a shoot, get your client's OK, and create press-ready data more quickly than ever before.

Setting up — lighting

For a normal shoot, you first need to set up your lighting. With the Fotex F10, you can use the lighting equipment you already have — strobe, continuous tungsten, metal halide, or even fluorescent illumination. There is no need to invest in new types of lighting.

White balance and gray balance

Like images captured on film, digital images may have a color cast. With the Fotex F10, however, you can eliminate color cast quickly and easily by setting white balance and gray balance. Simply take a photograph that includes a standard grayscale card at the side of the scene. When the image appears on your computer monitor, click on the reference areas in the photograph; the software will automatically compensate for any color cast. This eliminates the need to match illumination color temperature to film type — the software handles everything digitally!

Focus and cropping

Next you will want to set up your focus and cropping. The Fotex F10 camera back's software provides direct video display on the computer monitor, effectively turning the camera into a live video camera and permitting you to view your composition in a monitor window as you are setting up the objects in the scene. You can also use the image on the monitor to confirm focus with the aid of the Fotex F10's "Infocus" focus measurement function, or use a digital overlay grid to check for image distortion and correct it with the camera's tilts and swings. After determining the correct focus, you can crop the scene with the aid of an electronic frame displayed on the monitor. You can even use batch processing for images with the same crop.

* The 12 bits captured are converted to 8 bits at output. The extra four bits at capture are used to improve the quality of the 8-bit output.

Light metering

The Fotex F10 and software also offer a sophisticated built-in light metering function. Just take a single exposure and check the resulting data directly on the computer monitor. An intuitive graphical display shows you which parts of the scene are overexposed or underexposed, where the highlight and shadow detail first appear, and how the midtones are behaving. This makes it easy to adjust the lighting as necessary to improve image balance.

Getting the picture with ColorScope Pro

After everything is set up, simply take the picture and save the image data. Then process it using the ColorScope Pro color conversion software. ColorScope Pro supports the ColorSync 2.0 standard, so with proper calibration you can do soft proofing on your monitor. You can also create ICC profiles using the accompanying Fit software to enhance the visual match to your specific printing conditions.

After seeing the changes that are likely to occur on press, you can make any last minute adjustments to composition, lighting or color

balance you wish. Since exposures take under five seconds, you can take as many as you need, view the images with your client and decide on the spot which ones to use. When you have decided which images to use, you can convert them to CMYK format for printed output. ColorScope Pro offers easy AI setup and fast batch processing, and with Dainippon Screen's proven conversion technology, you can be sure your images will look great in print.

Light, compact, and versatile

The Fotex F10 is light and compact, and lets you use whatever lenses you want so you can have the flexibility you need. You can use it with a 4" x 5" camera or use it as a stand-alone by mounting Nikon and Hasselblad 35 mm lenses onto it. Digital lenses allowing computer-controlled aperture adjustment in tenths of an f-stop are also available.

The advantages of 3-shot, internal filter architecture

A digital camera back with a full frame CCD array must either use a filter wheel to isolate the RGB color channels and make

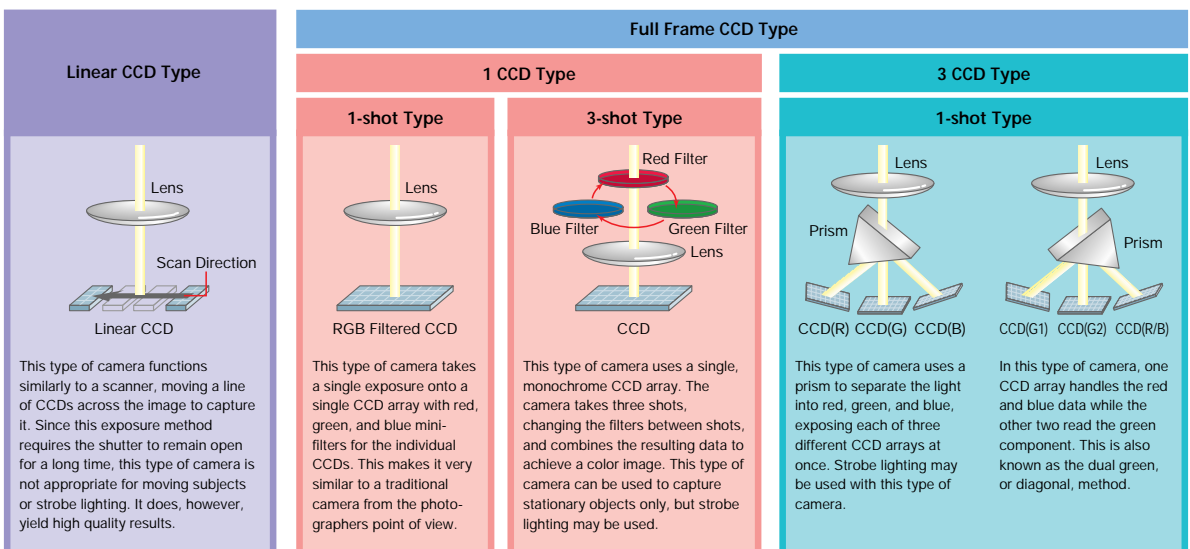
three passes — one for each color — or make a single pass and have dedicated color cells in the CCD array. The latter approach limits the quality of the image capture by lowering the effective resolution of the array and by causing a loss in sharpness because the red, green and blue data are not recorded at precisely the same position on the array.

On some 3-shot digital camera backs, an external filter wheel is mounted in front of the lens, limiting the flexibility of your camera's tilts and swings. Thanks to the innovative architecture of the Fotex F10, the filter wheel is mounted inside the camera back itself. This gives you the maximum freedom to move the camera front wherever required for distortion and perspective control.

The camera you need for speed, quality, and productivity

The Fotex F10 gives you fast, high-quality image capture. It also gives you control over your images in ways that aren't possible with traditional film, from initial setup to final CMYK output. The Fotex F10 — the tool you need to expand your capabilities for today's digital world.

Image Capture Methods for Digital Cameras



NEW PRODUCT

Digital Plate Recorder PlateRite 2080



Screen is proud to present the newest addition to its popular PlateRite lineup: the PlateRite 2080. The PlateRite 2080 offers the same high-quality output as the PlateRite 1080, at double the imaging speed[†]. In fact, this impressive unit can image an 820 x 1,030 mm (32" x 40.5") plate at 2,000 dpi in just over two and a half minutes.

The PlateRite 2080 offers a variety of productivity boosting features that will help you make the most of this impressive imaging speed. These include an advanced transport system that cuts overall output time, automatic interleaf removal, an optional internal punch system, and the option of more than one media cassette bay.

The PlateRite 2080 can output onto aluminum and photo polymer plates of a variety of sizes from 550 x 650 mm (21.5" x 25.5") to 820 x 1,030 mm (32" x 40.5"), at output resolutions ranging from 1,200 to 4,000 dpi. The PlateRite 2080 also supports a variety of screening options, including traditional and FM screenings, and yields its best results at high screenings such as 350 lpi.

A precision plate loading system places plates exactly where they belong, and a vacuum system holds the plates in place during imaging. For increased precision, the PlateRite's advanced optical unit includes a lens system that condenses the laser beam to produce sharp dots, as well as specially

designed lenses that compensate for any changes in the shape or size of the beam as it travels down the drum. A carefully engineered transport system assures smooth motion of the optical system as a whole.

The PlateRite 2080 can be equipped with up to three media cassette bays, for even higher productivity. These bays eliminate the need for the operator to insert different media each time output specifications change, and increase the total number of plates available for continuous operation with one size of plate. Once the appropriate media cassettes have been loaded into the bays, the operator can switch media with the touch of a button. Users of TaigaSPACE can even switch bays without leaving the Taiga workstation.

What's more, the PlateRite 2080 can accept preset parameters for a variety of printing presses and media sizes. Parameters,

which include plate size and thickness; type of imaging required; grip/anti-grip size; and punch configuration, are recalled automatically when cassettes are changed, saving operators the time and trouble of inputting this data to the recorder each time they change cassettes.

Whichever bay you elect to use, you can rest assured that the plate will be output quickly. The PlateRite's transport system allows simultaneous loading and unloading along most of the plate transport line. This cuts loading and unloading time by about 40 seconds during continuous operation^{††}, making it possible to output a full set of four plates in just 22 minutes (at 2,400 dpi).

The PlateRite 2080 also features an automatic interleaf removal system that routes plates to the imaging section and interleaf paper to a disposal bin in each plate cassette. Operators can empty the lightweight interleaf disposal bin at their leisure. Furthermore, an optional internal punch system improves repeatability while making it possible to take plates directly from the PlateRite 2080 to press. Up to five different custom punch blocks are available.

[†] At 2000 dpi

^{††} As compared with the first plate

Digital Color Proofing System
TrueRite 1080



The TrueRite digital proofing system is an indispensable part of any full-color pre-press workflow involving digital data. This remarkable system creates high-quality proofs from digital data, on the actual printing stock to be used. Fast, accurate, and less expensive than traditional proofing using plates, the TrueRite is the answer to all your proofing problems.

The TrueRite uses Kodak Approval™ thermal dye-sublimation materials to create proofs in a unique workflow. First, an intermediate sheet is exposed four times in the TC-P1080 exposure device, in contact sequentially with cyan, magenta, yellow, and black donor sheets. This creates the reverse of the desired image on the intermediate sheet. The intermediate sheet is then fed into the TP-80 laminator.

In the TP-80, a sheet of the printing stock is laminated and then contacted with

the intermediate sheet under conditions of heat and pressure. This transfers the image from the intermediate sheet to the sheet of printing stock, after which the completed proof is output.

What makes the TrueRite proofing system truly unique is its imaging system. The TC-P1080 outputs halftone dots just like

those created by imagesetters. And since it images right onto the printing stock to be used at press, the TrueRite can be used to simulate even elusive press factors such as dot gain, when properly calibrated.

TrueRite supports three output sizes: 625 x 513 mm (24.5" x 20.2"), 534 x 777 mm (21.0" x 30.6"), and 625 x 777 mm (24.6 x 30.6). It can support up to five donor sheets, including spot colors. Materials are exposed at 4,000 dpi.

The TrueRite proofing system fits perfectly into Screen's complete Color Management system, which includes TaigaSPACE's TaigaMatch color management software. It is also an ideal proofer for CTP workflows, since it allows you to see simulated output from your digital data before you go to the time and trouble of outputting plates.



Screen ISO* certification

Several Screen facilities have recently received ISO certification. These include major Screen plants in Japan, as well as Screen's main branch in Kyoto. Screen Japan's Graphic Arts Division's Hikone Manufacturing Department received ISO 9001 certification in January 1996. The main Graphic Arts plant, Kyoto Manufacturing Department (also known as Kumiya plant), received ISO 9002

certification in December 1996. Kyoto Head Office received ISO 14001 certification in February, 1997.

The CRT Mask Division's CRT Mask Production Department received ISO 9002 certification in April 1996, and three of the semiconductor fabrication equipment plants, Rakusai, Yasu, and Hikone Manufacturing Departments, recently received ISO 9000 series certification as well.

Screen will continue its efforts to meet global standards for environmental protection and quality control.

* ISO is a group with affiliated members in over 115 countries and territories. ISO certification, recognized worldwide, indicates that the holder has fulfilled the ISO standards for the given certification category. The ISO 9000 series standards are quality control and maintenance standards, while the 14000 series are environmental standards.