



## Canon DC40

By Terry Sullivan

**T**he hybrid market is set to take off, and I'm not talking about cars. Cameras such as the Casio Exilim EX-P505 and the Sony Cyber-shot M1 and M2 take okay video, but they are not spectacular. Now, the Canon DC40 (\$899 list) steps up to the plate as one of the first miniDVD camcorders that lets you shoot still images that you would want to pass around to friends. Although a few performance issues kept us from giving the DC40 our Editors' Choice award, it is a great sign of hybrid camcorders to come.

There's certainly a lot to like about the DC40. It has a 10X optical zoom range and stores video on 8cm miniDVD discs. The camera sports a nice 2.7-inch LCD, but that solarizes a little too readily when you tilt the screen even slightly. I can't wait until Canon includes its OLEDs in all its products. This would eliminate this kind of solarization and help Canon compete with Sony's very effective touch screens. It would also make it easier to overlook the annoying little joystick control that you're forced to use to navigate around the menus.

I love the DC40's smooth zoom control. By default the zoom is set to a variable rate, but you can set it to a constant rate as well. This keeps people from getting nauseous when watching your video footage, especially if you tend to zoom in and out frequently. I also like the automatic lens cover. No dangling lens cover here.

Another thing I like about the DC40 is the physical controls on the body of the camcorder. I specifically appreciate the finalize button. Other camcorders force you to scroll through menus to select the finalize option. Overall, Canon does



a good job on the menus, making them intuitive and easy to use.

The overall quality is quite good, although the Sony DCR-DVD-DVD505, with its larger LCD screen and an easy-to-use touch screen, is just a bit better. I was disappointed in the DC40's Night or Super Night mode. It's designed for use in low-light situations, but gave me streaky, almost surreal footage.

The DC40 did well on our lab tests. I set the camera to its highest-quality movie mode, which gave me about 20 minutes of video footage on a 1.4GB single-sided 8cm miniDVD disc. The talking-head clips displayed decent dynamic range and clarity, and the colors were pretty

vibrant and true to life. The footage could have been sharper, however, and there was a slight warm, reddish cast. I thought the audio was decent, but not as rich as the sound on Sony's DVD camcorders.

In the action clip, I was a little disappointed to see that the DC40 had some problems locking in the autofocus at the beginning of our action segment. Other than that, the camcorder held its own. On the EIA Resolution Chart it scored an average of 375 lines, which isn't quite as good as Sony's DVD505. The video clips also looked very good and were clear on our TV monitor (which tends to hide a lot of quality problems).

I had no trouble playing the miniDVD on my DVD player. The camcorder took about 6 minutes to finalize the disc, which is average.

I had no problem importing the clips from the DC40 into Adobe Premiere Elements 2.0 for video editing. I was also able to play the mini-disc on both my computer's DVD drive and in my DVD player once it had been finalized.

### Still Shooting

The DC40's still camera features let you take 4-megapixel images with a 10X optical zoom; it's equivalent to a 35mm lens with a 41.6-to-416mm zoom range. Images are stored on a miniSD card, which is even tinier than the xD cards used by Fuji and Olympus digital cameras and about half the size of the standard SD card.

For a camcorder, DC40 gives you lots of tools for taking great still images. I was particularly impressed with the burst mode. In normal frame mode, the 4.2-second recycle time is just average for a digital camera, although good for a camcorder. But it also has a speedy burst mode, even with the flash turned on. This makes it usable for shooting sports snapshots. In fact, when I both set the mode dial to the Sports icon and set the DC40 to Hi-Speed Continuous mode via the function menu, I was able to take eight shots in about 4.25 seconds without flash, and in 4.5 seconds with flash. (There's also a Continuous mode, although it seemed to function at the same rate as the Hi-Speed Continuous mode.) In the same function menu you can also choose the AEB (Auto Exposure Bracket) mode, which lets you snap a still image in three different exposures (dark, normal, and light).

Unfortunately, the DC40's still-photo features are far from perfect. It took about 2.5 seconds to go from one image to the next when reviewing images on the LCD screen. Even on a cheap point-and-shoot digital camera such as

the Canon PowerShot A430, you can scroll through your images faster than that. The DC40's tiny joystick is also irritating. Canon should have made it larger and easier to use.

In my lab tests, I found little to no noise in the daylight test shots, but some color noise in the flash image. Both test shots had very vibrant color, although the daylight image almost seemed too saturated. There was a bit of fringing in both images, but nothing too significant. Images showed good contrast, but the flash shot did blow out the highlights.

Resolution averaged 1,175 lines, which is low for a 4MP camera but very good for a camcorder. Bootup was slow; it took 5.8 seconds to start up. The 4.2-second recycle time is slow by digital camera standards but pretty good for a camcorder.

As I've found with most camcorders, the shutter lag was significant on the DC40. Shutter lag is the delay between the moment you press down on the shutter button and the moment the photo is captured. When a device has noticeable shutter lag—say more than a half-second—you start to miss action shots. For example, if you wanted to capture someone hitting a baseball and clicked the shutter button at the moment your subject's bat connects with the ball, the shutter lag might delay the image capture enough that you miss the shot you want and end up with an image of your subject with the bat on the other side of the plate (since he or she has already swung through). And if the lag is really slow, you might have an image of your subject trotting to first base (if he or she actually hit the ball)!

For video, the DVD505 produces better footage. And for digital camera images, most midrange cameras, even inexpensive ones, will get you better stills and larger file sizes. That said, the DC40 definitely raises the bar for hybrid devices that shoot both video and stills, making it a solid product and a very good buy.

### COMPANY:

Canon U.S.A. Inc  
<http://www.usa.canon.com>

### BOTTOM LINE:

Although performance needs to improve, the Canon DC40 is one of the first miniDVD camcorders to let you shoot decent stills.

### PROS:

Very good video quality. Decent 4-megapixel stills. Variety of special modes and features for both stills and video.

### CONS:

Significant shutter lag in auto mode. Video has a slight color cast. Reviewing still images is slow.

### PRICE:

\$570.00 - \$1,116.00

### SPEC DATA:

Weight: 1.1 lb  
LCD size: 2.7 inches  
CCD Resolution: 4 megapixels  
CCD Type: Single CCD  
Video Recording Format: DVD-R  
Still Image Recording Format: Secure Digital type / MB  
Battery Life: 1.08 Hr  
Optical Zoom: 10 times (X)  
Image Stabilization: Digital  
Focal Length (Wide): 6.1 mm  
Focal Length (Telephoto): 61 mm