

Trading 'pocketability' for quality and control

**Minidv Camcorder
Canon Optura 100MC**

by Peter Dudar

Two issues back we discussed "pocket cams" while reviewing Sony's DCR-PC9. Pocket cams are great for 'sketching' concepts but are primarily made to be used in point-and-shoot mode.

Well, the Canon Optura 100MC won't quite slip into your pocket, but at $2\frac{1}{2} \times 5\frac{1}{8} \times 5\frac{1}{8}$ inches it's still pretty small. In Toronto, the Optura sells for about \$2300 (MSRP \$2800) versus the Sony pocket cam's \$1900. That price spread buys you better manual overrides, a 1.3 megapixel CCD image sensor (vs 680K for a PC9), plus a larger and faster lens (f/1.6 - 1.8), among other features.

Specs-wise and looks-wise, Canon's Optura 100MC sits somewhere between Sony's smaller DCR-PC110 (1070 pixels) and the not yet available 1.5 megapixel DCR-PC115.

DESIGN FOLLOWS FUNCTION

The Optura 100MC is built vertically, like a scaled-up "pocket" cam or vintage 16mm Bolex. Canon has added a useful multi-an-

gle grip belt that pivots on the body. The layout of the controls relates nicely to how the cam is actually used; most gimmicky features have been left in the menus, so the body is uncluttered. Play/VCR functions are mainly enclosed by the flip-out LCD screen. The Zoom slider

and Photo button, which you manage partially by feel, are decent-sized and paired above the grip. Menu access functions are on the back of the cam body, and menus display on the viewfinder or LCD. One complaint—a poorly positioned Digital Effects button that's far too easy to activate accidentally.

For a consumer cam, the Optura is reasonably solid, except for the tilt-up viewfinder, which is too easy to knock out of whack while shooting. The lens hood included with the kit is a godsend when shooting in Canadian winter conditions.

SENSOR, ZOOM AND STABILIZER

The Optura 100MC's 2.5-inch color LCD screen displays 200,000 pixels and the 0.55-inch viewfinder has 113,000 pixels—neither matches even the Sony 110's pixel counts. On the other hand, the 1.3 megapixel CCD is as good as you'll get at this price. For what it's worth, the CCD is $5\frac{1}{8}$ ", a hair larger than the 1/4-inch CCDs in comparable cams.

The 10x optical zoom lens uses a "special" glass adapted from Canon's digital still cameras. Filter diameter: 43 mm (vs 37mm for the Sonys). Power zoom speed: variable, but relatively slow. Canon has upgraded the Optura's exposure control by adapting the six-blade iris from its 3-CCD camcorder models. An optical image stabilizer—a feature usually associated with higher end cams—has also been added into the mix. As a result you don't get the pixel degradation associated with electronic image stabilizers.

MANUAL FOCUS, EXPOSURE...

Of course, the Optura isn't as hands-on as a top of the line cam, but it does deliver some manual overrides: focus, exposure, white balance and shutter speed.

External buttons conveniently provide instant access to focus and exposure. Instead of the usual focus ring, you focus with the selector dial, which moves in increments—and that's not so great if you're pulling focus mid-shot. But the dial is fine for moving rapidly through the Exposure menu, which provides +/- steps of exposure compensation.

There are eight shutter speeds available, ranging from 1/60-second to 1/8000-second. Plus a Low Light mode lets you shoot in color down to 3 lux at a slow shutter speed of 1/15-second.

Besides manually setting white balance, which simply requires pointing the cam and pressing SET, you can also use standard preset values for indoors (3200° K) and outdoors (5600° K).

This camera is capable of recording 16-bit sound (48 kHz, 2 channels). But as usual with consumer camcorders, the microphone is in the cam body. If you prefer to record dialogue sans camera and operator noise, consider getting a directional mike like the DM-50, which slips conveniently into the hot accessory shoe.

The Optura has the usual array of I/O ports, including Firewire/IEEE 1394, LANC and Analog Line-In (composite or S-video). The exception is the lack of USB connectivity for exchanging multimedia

Pocket cams are truly convenient, but the CANON OPTURA 100MC delivers better manual overrides, 1.3 megapixels, and a larger and faster lens, among other features. (near right) Images captured from tape at 640 x 480 pixels.

(far right) A Progressive Photo still at 1280 x 960 resolution—shot in low light with auto flash.



card data with computers—so Canon ships a Zio! multimedia card reader/writer with the cam. The unit also includes an array of Programmed Auto Exposure and in-cam Digital Effects.

PROGRESSIVE PHOTO MODE AND POP-UP FLASH

The Optura can capture stills in Progressive Photo mode at 1280 x 960 resolution. The 8MB multimedia card that ships with the cam can hold about thirty-two 1280 x 960 images at standard resolution or seventeen at fine resolution; the camera accepts commercially available cards of up to 64 MB. Stills are compressed and stored in JPEG format—there's no MPEG capability. Images can also be captured on tape at 640 x 480 pixels and transferred to the card or vice versa.

In Auto mode, the cam's metering system activates the pop-up flash if light levels are low. It fires a pre-flash to check the exposure, and then fires a second to capture the image. Using the flash, the Optura 100MC produces decent snapshots, considering that they're only 1.3 megapixels. But that's the rub—at 1+ megapixels, camcorders are low-end still cameras. Nice perk, though.

'NECESSARY' OPTIONS

Typical for cameras in this price range, batteries must be charged in the camera, rendering the unit unavailable for shooting—and the so-called "2.5-hour" BP-512 battery pack which is included will last less than an hour in real world use. So it's well worth adding a charger and higher capacity batteries to your kit—and while you're at it, you might consider getting the FS-43U filter set which includes a neutral density (ND8) filter.

You can buy single CCD camcorders comparable to the 100MC for about \$3000—but at that point, you might as well kick in another \$600 and get a Canon GL1 camcorder with three CCDs. However as a 'sketch' cam, the Canon Optura 100MC delivers pretty decent specs and design for the price. ☺



CANON OPTURA 100MC

Specifications

IMAGE SENSOR: 5/18" CCD approx 1.33 million pixels (approx. 699,000 effective pixels)
LENS: F/1.6-1.8, 10x power zoom, 4.2-42.0 mm (8x zoom, 5.25-42.0 mm in CARD mode)
FOCUSING SYSTEM: TTL autofocus, manual focusing possible
MAXIMUM SHUTTER SPEED: 1/8000 (1/500 when using a memory card)
MINIMUM ILLUMINATION: 3 lx using the Low Light program during tape recording
FILTER DIAMETER: 43 mm
AUDIO RECORDING SYSTEM: PCM digital sound: 16 bit (48kHz/2ch), 12 bit (32kHz/4ch)
VIEWFINDER: 0.55 inch, color LCD (approx. 113,000 pixels)
LCD SCREEN: 2.5 in measured diagonally (approx. 200,000 pixels)
FLASH: Built-in, Auto pop-up flash
RECORDING MEDIA: MultiMediaCard, SD Memory Card
NUMBER OF RECORDING PIXELS: 1280 x 960 pixels, 640 x 480 pixels
FILE FORMAT: JPEG (Fine/Standard)
DV TERMINAL: Special 4 pin connector (based on IEEE1394)
VIDEO TERMINAL: 1 Vp-p/75 ohms unbalanced
S-VIDEO TERMINAL: 1 Vp-p (Y signal), 0.286 Vp-p (C signal)
AUDIO TERMINAL: Input level: -10 dBV/40 kohms, unbalanced; Output level: -10 dBV, less than 3 kohms, unbalanced
DIMENSIONS: 2 1/2 x 5 1/8 x 5 1/8 in
WEIGHT: 1 lb 7 1/4 oz (660 g)

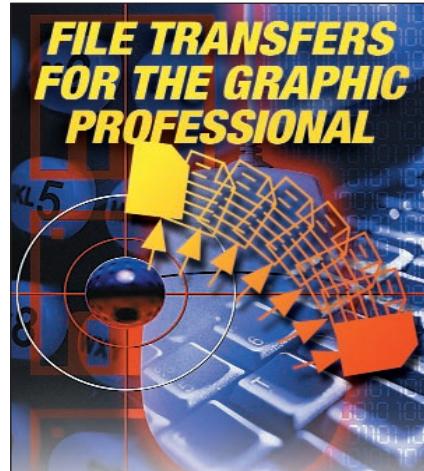
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