

## CX1 – Major Specifications

### No. of Effective Pixels (Camera):

Approximately 9.29 million pixels

### Image Sensor:

1/2.3-inch CMOS (total pixels: approx. 10.29 million pixels)

### Lens:

Focal length:  $f=4.95\text{-}35.4$  mm (equivalent to 28-200 mm for 35 mm film cameras. With Step Zoom set, option of seven fixed lengths: 28 mm, 35 mm, 50 mm, 85 mm, 105 mm, 135 mm, and 200 mm)

F-aperture: F3.3 (Wide) - F5.2 (Telephoto)

Shooting Distance: Normal shooting: Approx. 30 cm - infinity (Wide), approx. 1.0 m - infinity (Telephoto) (from the front of the lens)

Macro: Approx. 1 cm - infinity (Wide), approx. 25 cm - infinity (Telephoto), approx. 1 cm - infinity (Zoom Macro) (from the front of the lens)

Lens Construction: 10 elements in 7 groups (aspheric lens: 4 elements and 5 surfaces)

### Zoom Magnification:

Optical: 7.1x zoom (equivalent to 28-200 mm focal length for 35 mm cameras)

Digital: 4.8x up to 34.1x (equivalent to 960 mm) when used with optical zoom

Auto Resize:  $5.4x^{*1}$  up to  $38.6x^{*1}$  (equivalent to 1080 mm) when used with optical zoom

### Focus Mode:

Multi AF (contrast AF method) / Spot AF (contrast AF method) / Multi-Target AF / Manual Focus / Fixed Focus (Snap) / Infinity (AF auxiliary light)

### Motion Blur Reduction:

Image sensor shift method image stabilizer

### Shutter Speed:<sup>\*2</sup>

Still image: 8, 4, 2, 1 - 1/2000 sec. / Movie: 1/30 - 1/2000 sec.

### Continuous Shooting:

Continuous shooting speed<sup>\*3</sup>: approx. 4 frames/sec. (F3456, F3:2, F1:1 shooting time; shooting speed after 60 pictures is approx. 3 frames/sec.)

Continuous shooting capacity: 999 pictures

### Exposure Control:

Exposure Metering Mode: Multi (256 segments), Center Weighted Light Metering, Spot Metering Exposure Mode: Program AE

Exposure Compensation: Manual Exposure Compensation +/-2.0EV (1/3EV Steps), Auto Bracket Function (-0.5EV,  $\pm 0$ , +0.5EV)

### ISO Sensitivity (Standard Output Sensitivity):

AUTO, AUTO-HI, ISO80 / ISO100 / ISO200 / ISO400 / ISO800 / ISO1600

### White Balance Mode:

AUTO / Multi-Pattern AUTO / Outdoors / Cloudy / Incandescent / Incandescent 2 / Fluorescent / Manual, White Balance Bracket Function

### Flash:

Built-in flash mode: Auto (during low light and when the subject is backlit), Red-eye-Reduction,

Flash On, Slow Synchro, Flash Off

Built-in flash range: Approx. 20 cm - 3.0 m (Wide), approx. 25 cm - 2.0 m (Telephoto) (ISO Auto/ISO 400, from the front of the lens)

Flash compensation: +/-2.0EV (1/3EV Steps)

#### **Monitor:**

3.0-inch Transparent LCD (approx. 920,000 dots)

#### **Shooting Mode:**

Auto Shooting Mode / Easy Shooting Mode / Dynamic Range Double Shot Mode / Continuous Shooting Modes (Continuous, M-Continuous Plus, Ultra-High-Speed Continuous) / Scene Modes (Portrait / Face / Sports / Night Portrait / Landscape / Nightscape / High Sensitivity / Zoom Macro / Skew Correction / Text) / My Setting Mode / Movie Mode

#### **Picture Quality Mode:**<sup>\*4</sup>

F (Fine) / N (Normal)

#### **No. of Pixels Recorded:**

Still image/multi-picture: [4:3] 3456x2592, 3072x2304, 2592x1944, 2048x1536, 1728x1296 (M-Cont Plus), 1280x960, 640x480 / [3:2] 3456x2304 / [1:1] 2592x2592

Movie: 640x480, 320x240

Text: 3456x2592, 2048x1536

#### **Recording Media:**

SD memory card (32, 64, 128, 256, 512 MB, 1GB, 2GB), SDHC memory card (4GB, 8GB, 16GB, 32GB), Internal memory (approx. 88MB)

#### **Storage Capacity (Pictures/ Time):**<sup>\*5</sup> (internal memory 88MB)

Still image/multi-picture: 3456x2592 (F: 24, N: 43) / 3456x2304 (F: 28) / 2592x2592 (F: 33) / 3072x2304 (N: 53) / 2592x1944 (N: 73) / 2048x1536 (N: 109) / 1728x1296 (N: 143)(M-Cont Plus) / 1280x960 (N: 181) / 640x480 (N: 705)

Movie<sup>\*6</sup>: 640x480: 15 frames/sec. (1 min. 42 sec.), 320x240: 15 frames/sec. (4 min. 19 sec.) / 640x480: 30 frames/sec. (51 sec.), 320x240: 30 frames/sec. (2 min. 12 sec.)

#### **Recording File Format:**

Still Image: JPEG (Exif ver. 2.21)<sup>\*7</sup>

Multi-picture: CIPA DC-X007-2009 Multi-Picture Format draft compliant

Movie: AVI (Open DML Motion JPEG Format compliant)

Compression method: JPEG Baseline method compliant

#### **Other Major Shooting Functions:**

Continuous, Self-Timer (operation time: approx. 10 sec. / approx. 2 sec. / custom self-timer), Interval Timer (Shooting interval: 5 sec. - 1 hour (5 sec. steps)<sup>\*8</sup>, Color Bracket function, Focus Bracket function, Fix Min. Aperture, AE/AF Target Shift, Histogram, Grid Guide, Electronic Level

#### **Other Major Playback Functions:**

Grid View, Enlarged Display (maximum 16x), Resize, Level Compensation, White Balance Compensation, Trim, Flag, Slideshow, DPOF Setting

#### **Interface:**

USB 2.0 (High-Speed USB) Mini-B, Mass storage compatible<sup>\*9</sup> / AV Out 1.0Vp-p (75Ω)

#### **Video Signal Format:**

NTSC, PAL switchable

**Power Supply:**

Rechargeable Battery: DB-70 x1, AC adapter (AC-4g optional)

**Battery Consumption:**<sup>10</sup>

Based on CIPA Standard: Using the DB-70, approx. 270 pictures (when LCD Dim is on)<sup>11</sup>

**External Dimensions:**

101.5 mm (W) x 58.3 mm (H) x 27.9 mm (D) (excluding projecting parts)

**Weight:**

Approx. 180 g (excluding battery, SD memory card, strap), Accessories approx. 23 g (battery, strap)

**Operating Temperature Range:**

0°C-40°C

\*1. VGA image size

\*2. Shutter speed upper and lower limits vary depending on Shooting Mode and Flash Mode.

\*3. Values measured under Ricoh measurement conditions using a Panasonic PRO HIGH SPEED 8GB SDHC memory card. The continuous shooting speed and number of pictures will vary depending on the shooting conditions, the type of recording media used, the condition of the recording media, etc.

\*4. The picture quality modes which can be set vary depending on the image size.

\*5. Estimated number of still images it is possible to record and estimated amount of movie recording time.

\*6. The maximum length for one instance of movie recording is 90 minutes or the file size upper limit of 4GB.

\*7. Compatible with DCF and DPOF. DCF is the abbreviation of the JEITA standard "Design rule for Camera File system." (Full compatibility with other devices is not guaranteed.)

\*8. With flash off

\*9. Mass storage driver is compatible with Windows Me, 2000, XP, Vista, Mac OS9.0-9.2.2, and Mac OSX10.1.2-10.5.5.

\*10. Shooting capacity was measured using CIPA-standard parameters. This is only an estimate, and performance may vary according to usage conditions.

\*11. When LCD Auto Dim is off: approx. 250 pictures



CX1 (Black)

\* Windows is a registered trademark or trademark of Microsoft Corporation in the U.S.A. and other countries.

\* Mac OS is a registered trademark of Apple Inc. in the U.S.A. and other countries.

••