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## **PENTAX Optio W60 — A compact digital camera with enhanced waterproofing capable of operating underwater continuously for two hours at depths of four meters**

HOYA CORPORATION is pleased to announce the launch of the new PENTAX Optio W60 compact digital camera. Featuring one of the lightest designs in a waterproof camera, the Optio W60 is equipped with a newly developed 28mm wide-angle optical 5x zoom lens, a 10 effective megapixels, and enhanced waterproofing performance more than 30 percent better than previous models allowing the camera to operate underwater at depths of four meters.

### Major Features

#### 1. Optical 5x zoom lens for effortless enjoyment of zoom photography

We adopt a new optical 5x zoom lens in the Optio W60's compact body that covers focal lengths from 5mm to 25mm (approximately 28mm to 140mm in 35mm format) and features a refraction lens system so the lens never protrudes from the camera while zooming. This flexibility allows the camera to encompass a large variety of scenes, including expansive landscapes, architecture, and group photos in confined spaces as well as close-up telephoto shots of subjects. And when combined with the digital zoom function (about 1x to 5.7x), shooting is possible at zoom magnifications of up to a remarkable approx. 28.5x.

#### 2. Enhanced waterproofing performance

The Optio W60 can be used underwater as deep as four meters continuously for two hours — a more than 30 percent improvement over the performance of the previous model (which could be used only to depths of three meters). This achievement is the result of improved construction of the shutter button and other controls and reinforced airtightness at external joints. Not only is the Optio W60 waterproofed to the JIS Class 8 Waterproofing standard, it has been dustproofed to JIS Class 5 against sand and dust and can operate in temperatures as cold as –10°C. Photographers can use this camera during such outdoor activities as skiing, marine sports, or fishing as well as while gardening or cooking without having to worry about water or dirt.

### 3. High-quality movies with shake reduction that can be captured at HDTV resolution

The Optio W60 can capture movies at resolutions as high as 1280 x 720 pixels, which is comparable to HDTV resolution. It also has several features to make recording easier and more enjoyable, such as the Movie SR (Shake Reduction) function, which automatically corrects camera shake, and the Underwater Movie mode, which optimizes settings for recording underwater.

### 4. Auto Picture mode automatically selects from seven scene modes

We further advanced the scene-recognition technology based on our original Auto Picture mode, in which the camera determines the subject's shooting conditions and automatically selects the optimal scene mode. Photographers can now let the camera handle the details for many more types of scenes. In this mode, the Optio W60 can choose among seven capture modes, adding the Flower, Sport, and Night Scene Portrait modes to the previous Landscape, Portrait, Night Scene, and Standard modes.

### 5. Face Recognition function detects faces in only about 0.03 seconds

The Optio W60's Face Recognition AF & AE function delivers beautiful portrait shots with a single setting. We have upgraded this convenient function, which automatically sets the focus and exposure, so that it can detect up to 32 faces at one time in only about 0.03 seconds. The camera also comes with a Smile Capture mode, which waits until the subject is smiling to shoot, and Blinking detection, which warns the photographer if the subject blinked at the moment the shot was taken.

### 6. Approximately 10 effective megapixels produces exceptionally fine-detailed photos

Boosting the image sensor's resolution to approximately 10 effective megapixels delivers even more sharply detailed photos. With this level of resolution, prints as large as A3 still retain exceptional image detail and clarity.

### 7. High Sensitivity Digital SR mode reduces camera shake and subject blurring

The Optio W60 features a Digital SR (shake reduction) mode, which can compensate for camera shake and subject blurring during still-image photography. This mode automatically adjusts the sensitivity, up to a maximum of ISO 6400, in keeping with the subject's brightness to permit a fast enough shutter speed to capture a sharp, clear image. In addition, an electric shake reduction function corrects blurring in images during image playback.

## 8. Bright, easy-to-view, wide-angle LCD monitor

The 2.5-inch high-resolution (approximately 230,000 dots) LCD monitor is finished with an AR (Anti-Reflection) coating that cuts glare from reflections of external light while being bright enough to be viewed easily even in bright sunlight. The monitor's wide viewing angle — about 170° both horizontally and vertically — means photographers can conveniently check their shot from nearly any angle.

## 9. Other features

- (1) Macro mode can be used as close as one centimeter away from a subject for stunning close-up shots
- (2) Digital wide function merges two shots into one image for ultra-wide-angle expressions equivalent to a focal length of approx. 21mm in 35mm format
- (3) Our proprietary SP (Super Protect) coating adds superior water repellency to the lens's front protective glass to prevent water droplets from forming
- (4) Optional Optio W60 Skin O-CC812 (sold separately) guards the camera from scratches and dirt
- (5) Panorama mode stitches a series of up to three shots into one wide photo
- (6) Intelligent zoom function extends the zoom range without compromising the optical zoom's image quality
- (7) Supports SD memory cards and SDHC memory cards
- (8) Approximately 36.4 MB of built-in memory
- (9) Frame composite function allows photographers to shoot and create images with decorative frames; 80 styles to choose from
- (10) Date and Time imprint function for easy image categorizing
- (11) Includes the ACDSee for PENTAX 3.0 image viewer/image management software, that supports Windows Vista™
- (12) Supports PictBridge, DPOF functions, Exif Print, and PRINT Image Matching

\*PENTAX Corporation merged with HOYA CORPORATION on March 31, 2008.

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# Optio W60 Specifications

<b>Number of Effective pixels</b>		approx. 10.0 megapixels
<b>Image Sensor</b>		1/2.3" CCD
<b>Number of Recorded pixels</b>	<b>Still</b>	10M, 7.5M(16:9), 7M, 5M, 3M, 1024, 640
	<b>Movie</b>	1280, 640, 320
<b>Sensitivity (Standard Output Sensitivity)</b>		Auto, Fixed (ISO 50 - 6400)
<b>Motion Blur Reduction</b>	<b>Still</b>	High sensitivity shake reduction mode (Digital SR)
	<b>Movie</b>	Movie shake reduction mode (Movie SR)
<b>Face recognition</b>		Face recognition AF&AE is available for all modes up to 32 faces. Smile Capture and Blinking Detection are available.
<b>Storage Media</b>		Built-in Memory (approx. 36.4MB), SD/SDHC Memory Card
<b>White Balance</b>		Auto, Daylight, Shade, Tungsten light, Fluorescent light, Manual setting
<b>Lens</b>	PENTAX zoom lens, 11 elements in 9 groups (5 aspherical elements)	
	<b>Focal Length</b>	5 - 25 mm (35mm equivalent focal length is approx. 28 - 140mm)
	<b>Aperture</b>	F3.5(W)~F5.5(T)
<b>Zoom</b>	<b>Optical Zoom</b>	5X
	<b>Digital Zoom</b>	approx. 5.7X
	<b>Intelligent Zoom</b>	approx. 5.9X at 7M, approx. 28.5X at 640 (including optical zoom)
<b>Display</b>		2.5"LCD, Wide viewing angle, approx. 230K dots, AR Coating
<b>Focus</b>	<b>Type</b>	9-point AF, Spot AF, Auto tracking AF
	<b>Focus Range (From lense face)</b>	Normal: 0.5m (1.64ft) - infinity (whole zoom area)
		Macro: 0.1m (0.33ft) - 0.6m (1.97ft) (at whole zoom area)
		1cm Macro: 0.01m (0.03ft) - 0.3m (0.98ft) (middle zoom position)
		Infinity-landscape, Pan Focus, Manual Focus: available
<b>Exposure Control</b>	<b>Metering System</b>	Multi-segment metering, Center-weighted metering, Spot metering
	<b>Exposure Compensation</b>	±2EV(1/3EV steps)
<b>Scene modes</b>		Auto Picture, Program, Night Scene, Movie, Underwater, Underwater movie, Landscape, Flower, Portrait, Digital Wide, Surf&Snow, Digital SR, Kids, Pet, Half-length Portrait, Sport, Firework, Voice Recording, Night Scene Portrait, Text, Food, Digital Panorama, Frame Composite, Report, Green
<b>Playback modes</b>		Slideshow, Resize, Trimming, Image&Sound Copy, Image Rotation, Digital Filter(Color Filter (11 kinds), Soft Filter, Fisheye Filter, Brightness Filter), Movie Edit, Red-eye Compensation, Voice Memo, Protect, DPOF, Start-up Screen, Frame Composite, Face close-up playback
<b>Shutter Speed</b>		1/1500 - 1/4sec. 4sec at most. (Night Scene mode setting)
<b>Built-in flash</b>	<b>Modes</b>	Flash-on and Flash-off modes. "Red-eye" reduction function employs a pre-discharge. Soft Flash
	<b>Flash Range</b>	Wide: approx. 0.3 (0.98ft) - 3.9m (13ft) (ISO Auto) Tele: approx. 0.4 (1.31ft) - 2.5m (8.2ft) (ISO Auto)
<b>Drive Modes</b>		One shot, Self-timer, Continuous Shooting, High Speed Continuous Shooting, Interval Shooting, Auto bracket
<b>Power Source</b>	Rechargeable D-LI78 lithium-ion battery, Optional AC adapter kit is also available	
	<b>Battery life</b>	Still*: Approx. 205 shots (Rechargeable Lithium-ion battery) Playback**: Approx. 200 min. (Rechargeable Lithium-ion battery)
<b>Interfaces</b>		USB2.0(Hi-Speed), AV terminal
<b>PictBridge</b>		Supported
<b>Dimensions</b>		approx. 98(W) × 55.5(H) × 24.5(D)mm (including lens depth)
<b>Weight</b>	<b>Body</b>	approx. 125 g (without battery and SD memory card)
	<b>With battery &amp; SD card</b>	approx. 145 g (loaded and ready)

\* Recording capacity shows approximate number of shots recorded during CIPA-compliant testing. Actual performance may vary depending on operating conditions.

\*\* According to the result of PENTAX in-house testing.

## Optio W60 Specifications

Still		Built-in Memory*	512MB	1GB	2GB	4GB
<b>10M</b> (3648x2736)	★★★	9	117	235	476	935
	★★	17	228	458	931	1828
	★	24	321	643	1307	2567
<b>7.5M</b> (3648x2056)	★★★	12	156	313	633	1244
	★★	22	287	575	1159	2276
	★	29	377	755	1536	3016
<b>7M</b> (3072x2304)	★★★	12	157	314	640	1256
	★★	22	287	575	1159	2276
	★	29	377	755	1536	3016
<b>5M</b> (2592x1944)	★★★	14	188	377	768	1508
	★★	27	355	711	1429	2806
	★	38	503	1007	2049	4022
<b>3M</b> (2048x1536)	★★★	22	293	586	1182	2320
	★★	44	570	1140	2276	4469
	★	63	816	1634	3235	6351
<b>1024</b> (1024x768)	★★★	75	974	1950	3842	7541
	★★	122	1590	3182	6147	12066
	★	155	2014	4030	7684	15083
<b>640</b> (640x480)	★★★	155	2014	4030	7684	15083
	★★	233	3022	6045	12294	24133
	★	259	3358	6717	12294	24133

Movie (H:M:S)		Built-in Memory*	512MB	1GB	2GB	4GB
<b>1280x720</b>	<b>15fps</b>	0:00:34	0:07:31	0:15:02	0:30:08	0:59:09
<b>640X480</b>	<b>30fps</b>	0:00:34	0:07:31	0:15:02	0:30:08	0:59:09
	<b>15fps</b>	0:01:08	0:14:48	0:29:38	1:00:16	1:58:18
<b>320X240</b>	<b>30fps</b>	0:00:55	0:11:59	0:23:59	0:48:47	1:35:46
	<b>15fps</b>	0:01:46	0:22:53	0:45:48	1:33:08	3:02:49

Voice recording (H:M:S)	Built-in Memory*	512MB	1GB	2GB	4GB
	0:28:53	6:14:15	12:28:41	25:22:33	51:23:48

\*Approx. 36.4MB

The maximum file size is 2GB for movie.

The maximum recording time for one file is 30 minutes for movie.

The maximum length is 24 hours for Voice recording