

August 5, 2014

PENTAX Q-S1: A minimum-sized, lens-interchangeable digital camera providing fashionable design and exceptional operability

RICOH IMAGING COMPANY, LTD. is pleased to announce the launch of the PENTAX Q-S1 lens-interchangeable digital camera. In addition to its outstanding portability assured by the super-compact body, this new model offers solid basic specifications and a classic design with fine details. The combination of a well-conceived design and great operability makes the PENTAX Q-S1 an ideal everyday camera for photographers of all levels.

The PENTAX Q-S1 is the latest addition to the popular PENTAX Q series of compact-sized, lens-interchangeable digital cameras, which are developed to be more fashionable and user-friendly than digital SLRs. It comes equipped with a wide range of shooting features to make photography more enjoyable, including a 1/1.7-inch, back-illuminated CMOS image sensor to deliver high-quality images, high-sensitivity shooting to a top sensitivity of ISO 12800, and a reliable shake-reduction system using a state-of-the-art gyro sensor. It also provides a variety of creative tools, such as Bokeh Control to produce SLR-like bokeh effects with ease, and Smart Effect to add the desired filter effects with just a turn of a dial. Altogether, the PENTAX Q-S1 assists the photographer in creating more personalized, creative images more easily and efficiently.

Main Features

1. 1/1.7-inch image sensor to deliver high-quality images

Thanks to its 1/1.7-inch, back-illuminated CMOS image sensor, the Q-S1 delivers high-quality and high-resolution images. Coupled with the state-of-the-art high-speed engine name "Q ENGINE", it also minimizes annoying noises effectively at all ISO sensitivity levels to deliver rich-gradation, fine-texture images, even in high-sensitivity shooting using a top sensitivity of ISO 12800. It also offers outstanding autofocus accuracy during low-illumination shooting, since it assures pinpoint focus on the subject even at the faintest light level of EV 0.

2. Classic, high-grade design

The Q-S1 sports a classic design, with meticulous attention paid even to the texture of the finest details, making it a perfect everyday camera to carry around under all kinds of situations. Its Quick Dial and grip are made of high-grade aluminum for an exclusive look, and are symmetrically positioned for holding comfort and visual attractiveness. For the first time in the Q series, synthetic leather has been used for the front panel, to improve the texture and appearance.

3. Outstanding operability

Thanks to the incorporation of the Q ENGINE with an optimized algorithm, the Q-S1 assures quick, flawless response at all phases of shooting operation, including a short start-up time of approximately one second. The Quick Dial also lets the user assign as many as four favorite functions, including Smart Effect, aspect ratio, AF/MF switching, focus assist ON/OFF and ND filter ON/OFF, for instant mode switching during shooting.

4. Dependable SR mechanism

The Q-S1's advanced SR (Shake Reduction) mechanism features a state-of-the-art gyro sensor to effectively compensate for annoying camera shake. It produces sharp, blur-free images even under shooting conditions prone to camera shake, such as when using a telephoto lens, shooting in the dark without flash illumination, or capturing landscapes in the twilight.

5. Full HD movie recording, even during high-sensitivity shooting

The Q-S1 captures beautiful Full HD movie clips (1920 x 1080 pixels, at 30 frames per second, in the H.264 recording format) with minimal noise. It also provides an interval HD movie recording function to add more creativity to visual expression. The user can also take advantage of advanced image-processing tools like the Smart Effect modes* and an array of in-body movie editing tools. The Continuous AF (AF-C) mode** has been newly added to these creative options, allowing the user to capture a moving subject in sharp focus during movie recording.

** The frame rate may vary when a selected Smart Effect mode requires nonstandard image processing.*

*** This mode is not compatible with the UNIQUE LENS-series lenses and the 06 TELEPHOTO ZOOM lens.*

6. Large, high-resolution 3.0-inch LCD monitor

The Q-S1 features a high-resolution 3.0-inch 3:2-proportion LCD monitor with approximately 460,000 dots. This monitor is treated with AR (Anti-Reflection) coating to produce sharp, bright images even under bright sunshine by effectively minimizing glare and reflection on the screen. Since its wide-view design makes it possible to view the image from 170 degrees horizontally and vertically, the user has a clear view of the on-screen image even when facing the monitor from an angle.

7. An array of image-processing tools to create personalized images

(1) Custom Image function to add distinctive finishing touches

The Custom Image function adds a distinctive finishing touch to an image, faithfully expressing the photographer's creative intention or reproducing the ambience of a specific scene. The user has a choice of 11 Custom Image modes, including Bleach Bypass, which produces a dramatic, movie-like finish.

(2) Digital filter function to apply artistic visual effects

The digital filter function lets the photographer apply a variety of visual effects without requiring a computer. Of 17 total options, 11 filters including Toy Camera, Invert Color and Posterization can be applied even during the shooting of still images and movie clips, while the remaining six can be applied only during image editing. The user can even apply multiple filters to a single image to produce more inventive visual effects.

(3) Smart Effect function for simple dial control of finishing touches

Using the Quick Dial positioned on the camera's front panel, the user can quickly and effortlessly add a desired finishing touch to an image, while previewing the applied effect on the LCD monitor. From nine Smart Effect modes — including Antique for an nostalgic atmosphere and Fade Color for a chic, faded-color finish — the user can assign four favorite modes to the dial in advance.

8. Effortless Bokeh Control

The Q-S1's unique Bokeh Control function allows the user to make the subject stand out by automatically assessing the relative distance between the in-focus subject and obtrusive objects in the field of view. Since this function simplifies the advanced, SLR-caliber technique of

intentional defocusing, even a first-time digital camera user can effortlessly capture high-quality images with beautifully defocused foregrounds and backgrounds.

9. Simple, user-friendly Auto Picture and Scene modes

The Q-S1 features the PENTAX-original Auto Picture mode, which automatically selects the most appropriate shooting mode from an range of options including Portrait, Landscape and Macro for a given scene or subject. Since the camera optimizes all affecting parameters, such as shutter speed, aperture, white balance, saturation, contrast and sharpness, the user can concentrate on the image composition and shutter opportunity. The Q-S1 also provides 21 Scene modes including Night Scene Portrait, Pet and Backlight Silhouette, allowing even an entry-level digital photographer to choose the best exposure settings for a complicated scene or subject with the simple choice of an icon on the LCD monitor.

10. Digital SLR-caliber exposure system

The Q-S1's comprehensive exposure system assures all the advantages and flexibility of a lens-interchangeable digital camera system. In addition to the all-purpose Programmed AE (P) mode, which automatically selects an optimum combination of aperture and shutter speed, it also provides the Aperture-Priority AE (Av) and Shutter-Priority AE (Tv) modes for manual setting of a desired aperture or shutter speed, as well as Metered Manual (M) mode for complete user control over exposure settings.

11. DR II mechanism for effective dust removal

The Q-S1's DR II (Dust Removal II) mechanism effectively prevents annoying dust spots from spoiling captured images, even after the user changes lenses out in the open. Like the PENTAX K-3 and 645Z digital SLR cameras, it employs a highly efficient supersonic vibration mechanism, which vibrates the image sensor at high speed to shake dust off its surface.

12. Other features

- Compatibility with Eye-Fi wireless LAN SD memory cards
- High-speed continuous shooting of up to five images per second
- HDR mode to composite three images of varying exposures into one photo with extra-wide dynamic range
- CTE white-balance control mode to emphasize the predominant color of a particular scene, such as the sunset
- Multi-exposure mode (up to nine exposures on a single image), with an auto exposure compensation function
- Remote control receptors on front and back panels
- Digital level function to check the camera's horizontal/vertical inclination
- Digital Camera Utility 5 software (latest version) included

Optional Accessories

O-CC151 Camera Case

A camera case exclusively designed for the Q-S1, with two strap lugs at the sides to keep the camera suspended at a level position for delay-free shooting. It not only protects the camera from dust and scratches, but adds a sense of elegance and style to the camera. Made of synthetic leather, with a choice of black, cream or greige color.

Usable model: PENTAX Q-S1

O-CC1512 Camera Case (with front cover)

A camera case exclusively designed for the Q-S1, with two strap lugs at the sides to keep the camera suspended at a level position for delay-free shooting. Comes with a front cover to protect the lens surface from dust and scratches. Made of synthetic leather, with a choice of black, cream or red color.

Usable model: PENTAX Q-S1

O-CC1513 Holster Case

A camera case designed to fasten on a belt for quick removal of the camera. The main holster holds the camera with a lens attached, while two neighboring compartments hold the 06 and 02 lenses, respectively. Made of brown-colored synthetic leather, with a ring to attach a strap. A hand strap is also included.

Usable model: PENTAX Q-S1, Q7, Q10 and Q

O-CC1516 Lens Case for 02/06

A lens case for exclusive use with the 02 or 06 lens, with internal padding to protect the lens from dust and scratches. Made of black-colored synthetic leather, with a ring to attach a strap.

Applicable models: PENTAX-02 STANDARD ZOOM and PENTAX-06 TELEPHOTO ZOOM

O-ST151 Three-way Strap

A versatile three-way camera strap, providing three different functions — diagonal suspension, neck strap or hand strap — by varying the arrangement of its two parts. Made of synthetic leather, with a choice of black or cream color.

Usable model: PENTAX Q-S1, Q7, Q10 and Q

Note: Designs and specifications are subject to change without notice.

PENTAX Q-S1 Specifications

Model Description

Type	Lens-interchangeable SL digital-still camera
Lens Mount	PENTAX bayonet Q-mount
Compatible Lens	Q-mount lenses

Image Capture Unit

Image Sensor	Type: CMOS sensor with a primary color filter, Size: 1/1.7-inch
Effective Pixels	Approx. 12.4 megapixels
Total Pixels	Approx. 12.76 megapixels
Dust Removal	Image sensor cleaning using ultrasonic vibrations "DR II"
Sensitivity (Standard Output)	AUTO: ISO 100 to 12800 (1/3 EV steps) Bulb mode: up to ISO 1600
Image Stabilizer	Sensor shift Shake Reduction

File Formats

File Format	RAW (DNG), JPEG (Exif 2.3), DCF2.0 compliant
Recorded Pixels	JPEG [4:3]L:12M(4000x3000),M:7M(3072x2304),S:3M(1920x1440) [3:2]L:10M(4000x2664),M:6M(3072x2048),S:2M(1920x1280) [16:9]L:9M(4000x2248),M:5M(3072x1728),S:2M(1920x1080) [1:1]L:9M(2992x2992),M:5M(2304x2304),2M(1440x1440) RAW [4:3]12M(4000x3000)
Quality Level	RAW (12bit): DNG JPEG: ★★★ (Best), ★★ (Better), ★ (Good) RAW and JPEG simultaneously recordable
Color Space	sRGB, AdobeRGB
Storage Medium	SD, SDHC, SDXC Memory Card and Eye-Fi Card
Storage Folder	Date (100_1018, 100_1019...)/PENTX (100PENTX, 101PENTX...)

LCD Monitor

Type	TFT color LCD monitor, wide angle viewing, AR Coat
Size	3.0 inches
Dots	Approx. 460,000 dots
Adjustment	Brightness and colors adjustable
Display	Field of View: approx. 100%, Electronic Level, Grid display (4x4 Grid, Golden Section, Scale display), Bright area warning, Histogram

White Balance

Auto	TTL by CMOS image sensor
Preset	Daylight, Shade, Cloudy, Fluorescent Light (D:Daylight Color, N:Daylight White, W:Cool White, L:Warm White), Tungsten, Flash, CTE, Manual
Manual	Configuration using the display screen (up to 3 settings can be saved), Copying the white balance setting of a captured image
Fine Adjustment	Adjustable ±7 steps on A-B axis or G-M axis

Autofocus System

Type	Contrast detection AF
Brightness Range	EV0 to 18 (ISO100)
Focus Method	AF/MF switching
Autofocus Method	Face Detection, Tracking, Multi-point Auto, Select, Spot
AF Assist Light	Dedicated LED AF assist light
MF Autozoom	OFF / x 2 / x 4 / x 6
Focus Peaking	OFF/ON

Metering

Type	TTL image sensor metering, segment metering, centerweighted metering, and spot metering
Exposure Compensation	EV1 - 17 (ISO 100, F1.9 lens), +2EV using the Electronic Shutter setting or using the ND filter
Exposure Modes	<Auto Picture mode> Standard, Portrait, Landscape, Macro, Night Scene Portrait, Night Scene, Blue Sky, Forest <Scene Mode> Portrait, Landscape, Macro, Moving Object, Night Scene Portrait, Sunset, Blue Sky, Forest, Night Scene, Night Scene HDR*, Night Snap, HDR*, Quick Macro*, Food, Pet, Kids, Surf&Snow, Backlight Silhouette, Candlelight, Stage Lighting, Museum Program Auto Exposure, Shutter Priority, Aperture Priority, Manual Exposure, Bulb, Blur Control* * JPEG Only
EV Compensation	± 3EV (1/3EV step)
AE Lock	Can be assigned to the green/delete button from the menu. Continuous as long as the shutter release button is pressed halfway.
Shutter	Lens shutter: 1/2000 - 30 seconds (1/3EV step, 1/8000 - 30 seconds when Electronic Shutter setting is enabled), Bulb *Shooting at 1/8000 - 2 seconds with Electronic Shutter and Bulb shooting are not available when using a lens that has no lens shutter.
Aperture	From wide open to F8 *Not available when using a lens that has no lens shutter.
ND Filter	Off/On *Not available when using a lens that has no lens shutter.

Drive Modes

Mode Selection	Single frame, Continuous (Hi, Lo), Self-timer (12s, 2s), Remote Control (0 sec., 3 sec., continuous), Exposure Bracketing (3 frames, remote control), Multi-exposure (0 sec., Self-time, remote control), Interval Shooting
Continuous Shooting	Approx. 5 fps, JPEG (12M / ★★ ★ / Continuous Hi): up to 5 frames, Approx. 1.5 fps, JPEG (12M / ★★ ★ / Continuous Lo): up to 100 frames

Built-in Flash

Built-in Flash	Built-in retractable P-TTL flash Guide number: approx. 4.9 (ISO100/m) / approx. 7 (ISO200/m) Angle of view: coverage: wide angle-lens, equivalent to 28mm in 35mm format
Flash Modes	P-TTL, Red-eye Reduction, Slow-speed Sync, Trailing Curtain Sync
Sync Speed	Lens shutter: 1/2000 seconds, Electronic shutter: 1/13 seconds
Flash Exposure Compensation	-2.0 to +1.0 EV

Capture Functions

Custom Image	Bright, Natural, Portrait, Landscape, Vibrant, Radiant, Muted, Bleach Bypass, Reversal Film, Monochrome, Cross Processing
Noise Reduction	High-ISO NR
Dynamic Range Setting	Highlight Correction, Shadow Correction
Lens Correction	Distortion Correction
Digital Filter	Toy Camera, High Contrast, Shading, Slim, HDR, Invert Color, Extract Color, Color, Water Color, Posterization, Fish-eye
HDR Capture	Auto, HDR 1, HDR 2
Multi-exposure	Number of shots: 2-9, Exposure adjusted automatically.
Interval Shooting	Shooting interval: 3 sec. to 24 hr., Start Interval setting: immediately from the set time, Number of shots: up to 999 images
Smart Effect	Brilliant Color, Unicolor Bold, Vintage Color, Antique, Warm Fade, Tone Expansion, Bold Monochrome, Faded color, Vibrant Color Enhance, USER 1 to 3
Electronic Level	Displayed on LCD monitor (horizontal direction and vertical direction)

Movie

File Format	MPEG-4 AVC/H.264
Recorded Pixels	FullHD(1920x1080,16:9,30fps/25fps/24fps), HD(1280x720,16:9,30fps/25fps/24fps), VGA(640x480,4:3,30fps/25fps/24fps)
Sound	Built-in monaural microphone
Recording Time	Up to 25 minutes; automatically stops recording if the internal temperature of the camera becomes high.
Custom Image	Bright, Natural, Portrait, Landscape, Vibrant, Radiant, Muted, Bleach Bypass, Reversal Film, Monochrome, Cross Processing
Digital Filter	Toy Camera, High Contrast, Shading, Tone Expansion, Invert Color, Extract Color, Unicolor Bold, Water Color, Posterization, Slim, Fish-eye
Interval Movie	Recording interval: 3 sec., 5 sec., 10 sec., 30 sec., 1 min., 5 min., 10 min., 30 min., 1 hr., Recording time: 12 sec. to 99 hr. Start Interval setting: immediately, from the set time
Continuous AF during movie recording	ON/OFF ※06Lens of High-performance Lens Series are not supported

Playback Functions

Playback View	Single frame, multi-image display (4, 9, 30, 56 segmentation), display magnification (up to 16x, scrolling and quick magnification available), rotating, histogram (Y histogram, RGB histogram), bright area warning, detailed inf, folder display, Date display, Slideshow
Delete	Delete single image, delete all images, select & delete, delete folder, delete instant review image
Digital Filter	Base Parameter Adjustment, Toy Camera, High Contrast, Shading, Tone Expansion, Invert Color, Extract Color, Uicolor Bold, Water Color, Posterization, Slim, Fish-eye, Retro, Soft, Sketch Filter, Miniature, Soft, Starburst,
RAW Development	File Format (JPEG), Aspect Ratio, Color Space, Custom Image, White Balance, Sensitivity, High-ISO NR, Shadow Correction, Distortion Correction
Edit	Resize, Cropping (aspect ratio adjustment available), Index, Movie Editing (divide or delete selected frames), Capturing a JPEG still picture from a movie, Red-eye Edit, Saving buffer as a RAW file

Customization

Custom Functions	16 items
Mode Memory	10 items
Button/ Dial Customization	Green/Delete button: Green Button, Preview, One Push File Format, AE Lock, Enable AF Quick Dial: Smart Effect, Custom Image, Digital Filter, Aspect Ratio
World Time	World Time settings for 75 cities (28 time zones)
Language	Japanese, English, French, German, Spanish, Portuguese, Italian, Dutch, Danish, Swedish, Finnish, Polish, Czech, Hungarian, Turkish, Greece, Russian, Korean, Chinese (Traditional), Chinese (Simplified)

Power Supply

Battery Type	Rechargeable Lithium-ion Battery D-LI68
AC Adapter	AC Adapter Kit K-AC115 (optional)
Battery Life	Number of recordable images: approx. 250 images (with 50% flash usage), approx. 260 images (without flash usage) Playback time: approx. 160 minutes * Using a new lithium-ion battery under the temperature at 23 °C, Tested in compliance with CIPA standard.

Interfaces

Connection Port	USB 2.0 / AV output terminal, HDMI output terminal (Type D)
USB Connection	MSC/PTP
Video Output Format	NTSC/PAL

Dimensions and Weight

Dimensions	Approx. 105.0mm (W) x58.0mm (H) x34.0mm (D) (excluding the operation parts and protrusion)
Weight	Approx. 203g (loaded and ready with the dedicated battery and SD Memory Card), Approx. 183g (body only)

Accessories

Package Contents	USB Cable I-USB7, Strap O-ST131, Rechargeable Lithium-ion Battery D-LI68, Battery Charger D-BC68P, AC plug cord, Software (CDROM) S-SW151 <Mounted on the camera> Hot shoe cover FK, Body mount cover
Software	Digital Camera Utility 5

PENTAX Q-S1 Specifications

RAW

	4:3	16:9	3:2	1:1
128MB	5	5	5	5
256MB	11	11	11	11
512MB	24	24	24	24
1GB	50	50	50	50
2GB	103	103	103	103
4GB	204	204	204	204
6GB	311	311	311	311
8GB	417	417	417	417
12GB	629	629	629	629
16GB	840	840	840	840
32GB	1686	1686	1686	1686

Movie (30fps)

	Full HD(16:9) (1920×1080)	HD(16:9) (1280×720)	VGA(4:3) (640×480)
128MB	00:01'17	00:02'42	00:06'31
256MB	00:02'31	00:05'16	00:12'44
512MB	00:04'59	00:10'28	00:25'15
1GB	00:09'59	00:20'57	00:50'33
2GB	00:20'19	00:42'38	01:42'49
4GB	00:39'54	01:23'43	03:21'55
6GB	01:00'41	02:07'18	05:07'02
8GB	01:21'14	02:50'23	06:50'57
12GB	02:02'32	04:17'01	10:19'53
16GB	02:43'27	05:42'51	13:46'52
32GB	05:27'53	11:27'45	27:38'42

JPEG(4:3)

	12M (4000×3000)			7M (3072×2304)			3M (1920×1440)		
	★★★	★★	★	★★★	★★	★	★★★	★★	★
128MB	25	35	60	42	59	99	105	144	230
256MB	50	69	118	84	117	195	207	282	450
512MB	100	139	235	168	233	388	412	559	893
1GB	201	280	472	337	467	777	825	1121	1788
2GB	410	571	961	687	951	1582	1679	2281	3639
4GB	807	1122	1889	1351	1869	3107	3299	4481	7147
6GB	1228	1706	2872	2055	2842	4726	5016	6813	10867
8GB	1644	2284	3845	2751	3804	6325	6715	9120	14546
12GB	2480	3446	5800	4151	5739	9542	10129	13756	21941
16GB	3308	4598	7738	5537	7656	12728	13512	18350	29268
32GB	6638	9224	15523	11110	15360	25534	27105	36812	58713

JPEG(16:9)

	9M (4000×2248)			5M (3072×1728)			2M (1920×1080)		
	★★★	★★	★	★★★	★★	★	★★★	★★	★
128MB	33	47	79	56	78	130	137	186	291
256MB	66	92	155	111	154	254	269	363	569
512MB	133	184	310	222	306	505	535	721	1128
1GB	267	371	621	445	614	1012	1073	1444	2259
2GB	544	755	1264	908	1250	2060	2183	2939	4596
4GB	1071	1484	2484	1783	2456	4046	4288	5773	9027
6GB	1628	2258	3778	2712	3735	6152	6521	8778	13725
8GB	2180	3022	5057	3631	5000	8235	8729	11750	18371
12GB	3289	4560	7628	5477	7543	12422	13167	17723	27711
16GB	4388	6083	10176	7307	10062	16570	17564	23642	36965
32GB	8804	12203	20415	14659	20186	33241	35235	47426	74153

JPEG(3:2)

	10M (4000×2664)			6M (3072×2048)			2M (1920×1280)		
	★★★	★★	★	★★★	★★	★	★★★	★★	★
128MB	28	39	67	48	66	111	118	160	254
256MB	56	78	132	94	131	217	231	313	496
512MB	112	156	263	188	260	432	459	621	984
1GB	226	314	529	378	522	866	919	1245	1971
2GB	461	641	1077	771	1064	1764	1871	2533	4010
4GB	907	1259	2115	1514	2091	3465	3676	4976	7876
6GB	1379	1915	3217	2303	3180	5269	5590	7566	11976
8GB	1847	2564	4306	3083	4257	7052	7482	10127	16029
12GB	2786	3868	6496	4652	6422	10638	11286	15276	24179
16GB	3717	5161	8665	6205	8567	14191	15056	20377	32253
32GB	7458	10354	17384	12449	17186	28468	30202	40878	64700

JPEG(1:1)

	9M (2992×2992)			5M (2304×2304)			2M (1440×1440)		
	★★★	★★	★	★★★	★★	★	★★★	★★	★
128MB	33	47	79	56	78	130	137	186	291
256MB	66	93	156	111	154	254	269	363	569
512MB	133	185	311	222	306	505	535	721	1128
1GB	268	372	624	445	614	1012	1073	1444	2259
2GB	547	759	1270	908	1250	2060	2183	2939	4596
4GB	1075	1491	2495	1783	2456	4046	4288	5773	9027
6GB	1636	2268	3794	2712	3735	6152	6521	8778	13725
8GB	2190	3035	5078	3631	5000	8235	8729	11750	18371
12GB	3303	4579	7660	5477	7543	12422	13167	17723	27711
16GB	4407	6109	10219	7307	10062	16570	17564	23642	36965
32GB	8842	12256	20500	14659	20186	33241	35235	47426	74153

System Requirements for PENTAX Q-S1

< Windows >

OS	Windows 8.1 (32 bit/64 bit) / Windows 8 (32 bit/64 bit) / Windows 7 (32 bit/64 bit) / Windows Vista (32 bit/64 bit)
CPU	Intel Core 2 Duo or higher
RAM	2GB or more
HDD	Program installation and start-up: 100 MB or more of available space Image file saving: Approximately 5MB per file (JPEG) / approximately 25MB (RAW)
Monitor	1280x1024 dots, 24-bit full color or higher

< Macintosh >

OS	OS X 10.9/10.8/10.7, Mac OS X 10.6
CPU	Intel Core 2 Duo or higher
RAM	2GB or more
HDD	Program installation and start-up: 100 MB or more of available space Image file saving: Approximately 5MB per file (JPEG) / approximately 25MB (RAW)
Monitor	1280x1024 dots, 24-bit full color or higher