RICOH

G700SE

Wireless, GPS, and Barcode Supported Digital Camera

GPS

Data

Wireless

RICOH ZOOM LENS

RICOH

G700SE

Bluetooth®

WiFi CERTIFIED

Water, dust, and shock resistance	28mm ▶ 140mm	SD WORM
Chemical resistance	22mm<option>	Camera lock

Bluetooth® & WiFi

GPS <option>

Barcode

*All lens focal lengths in this catalog are converted into 35 mm camera equivalents.

The G700SE has all of the waterproof, dust resistance and shock resistance performance you would expect from a camera designed for use in harsh environments, but it now comes equipped with Bluetooth®and wireless LAN capability as standard. Additional support for optional GPS or bar code reader units make the G700SE the only choice for an onsite digital camera.

Wireless — Link to computer or smartphone for maintenance

G700SE

GPS — Record and save position information data for disaster response

Barcode — Manage image information of affected parts, or manage products for distribution

TOUGH — The toughness critical for difficult work sites

NEW | **Shock resistance** | **Enhanced shock resistance tough enough to pass a 2.0 m drop test**

Despite its small size and light weight, the G700SE has strengthened glass at the lens front surface and body protectors added at strategic points. This toughness enabled it to withstand 2.0 m drops in 26 positions (6 surfaces, 8 corners, and 12 edges) in testing conforming to US Department of Defense "MIL Standard 810F." Furthermore, it also passes this test with the power on.

NEW | **Water resistance** | **IPX8 equivalent water resistance enables two hours of use at 5 m depth**

Water resistance is rated at JIS/IEC waterproof protection grade 8 so the G700SE can handle two hours of underwater photography at a depth of 5 m. In addition to use at wet sites, the G700SE can also be used for shooting in the rain, and it can be washed in water if it gets dirty.

Dust and cold resistance | **Toughness for the most demanding sites**

Dust resistance, at JIS/IEC dustproof protection grade 6, guards against infiltration by dust and sand. The G700SE can also shoot in cold environments, with cold resistance able to handle temperatures down to -10℃.

NEW | **Chemical resistance** | **Sodium hypochlorite and ethanol disinfection OK**

The G700SE can be disinfected with ethanol or sodium hypochlorite, which has been approved as a food additive disinfectant. So it can be safely used in medical facilities and production facilities.

NEW ■**Extended operation time for up to about 360 pictures**

Approximately 360 pictures* can be taken with the rechargeable battery provided. The dissipation of battery power can be reduced by specifying synchro monitor mode, which turns the picture display off when the camera is not being operated.

＊Shooting capacity was measured using CIPA-standard parameters.
This is only an estimate and performance may vary depending on usage conditions.

■**AAA Alkaline batteries can also be used**

In addition to the high-capacity rechargeable battery included, the G700SE can also be powered with readily available AAA-size alkaline batteries. With these batteries, approximately 40 shots* can be taken. So you can quickly recover from the battery depletion that can occur in periods of long use.

＊Shooting capacity was measured using CIPA-standard parameters.
This is only an estimate and performance may vary depending on usage conditions.

■**Filter use possible**

You can also attach commercially available 37 mm diameter filters, which are effective for preventing lens scratching and condensation.

NEW ■**Wide and long neck strap**

With the wide, durable neck strap, you can suspend the camera diagonally, and it can also be suspended vertically from the neck to allow for easy storage in a breast pocket.

■**Operation controls easy to use even wearing gloves**

Featuring relatively large buttons, the operation controls are arranged in a simple design that enables easy operation even with gloves on. *Simulated image.
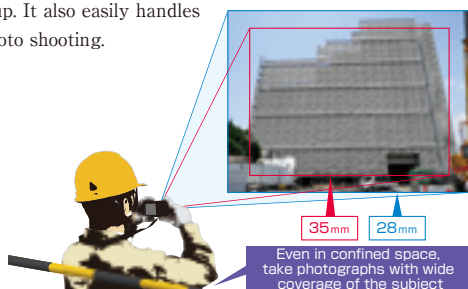
28-140 mm non-extending optical 5x zoom captures each subject as intended

The G700SE uses a 28-140 mm 5x optical zoom lens. With the ability to take photographs across a wide range impossible for a standard 35 mm lens, the G700SE is convenient for shooting indoors and at other sites where it is not practical to back up. It also easily handles telephoto shooting.

35mm 28mm

Even in confined space, take photographs with wide coverage of the subject

Wide conversion lens (DW-5) ＜Option＞

Now it is possible to shoot at an even wider 22 mm equivalent. With the slim design, you can shoot without being bothered by lens bulk even when the conversion lens is attached.

Even surface texture is visible: 1 cm macro shooting

With 1 cm wide-angle macro photography* you can capture small screws and scratches and even vividly reproduce material textures. In addition, the flash can be used to illuminate subjects as close as 20 cm.

*The macro shooting wide-angle setting is f=5.9mm at a 33 mm focal length (35 mm equivalent). At maximum telephoto you can shoot as close as 15 cm.

NEW 12.1 million effective pixels for more precise photo reproduction

Sharply reproduce worksite conditions and even words written on a blackboard. Even after cropping, images remain crisp and vivid.

Built-in flash reaches up to 10 m

For reliable photography even in dark sites such as tunnel interiors, the G700SE has a built-in flash with a range of 10 m for wide-angle and 6.2 m for telephoto. With high-sensitivity ISO 3200, the G700SE can also shoot in situations where flash cannot be used.

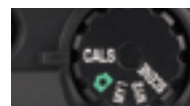Manual flash in 10 m mode   ISO 3200   *Taken with flash off

Accessory shoe

The accessory shoe (conforms to JIS B7101) makes it possible to shoot with commercially available flash units*. This further expands the scenes which can be photographed.

*A flash with both a slave flash function and a pre-flash support function should be used. It is not possible to use units without a spring or lock mechanism or units on which synchronization with the pre-flash cannot be cancelled. Furthermore, the accessory shoe does not support a synchronizer contact.

Mode dial enables speedy setting changes

In addition to the automatic shooting mode and scene mode, the camera is equipped with the CALS mode that supports a wide range of electronic delivery standards. Image size and quality can be selected from 6 types, ranging from "5M 4:3F" to "VGA 4:3F". The camera also has a "My Settings" mode. By registering often used settings such as image quality and ISO sensitivity in advanced, you can shoot using your preferred settings simply by turning the mode dial to "MY1" or "MY2".

■Firefighting mode

The focal length is fixed to 2.5 m and ISO sensitivity is raised to enable shooting of clear photographs in the difficult conditions for autofocus at the scene of a fire. Sharpness processing is also done to give the still images a sharper feel.

■Adjust button

By just pressing the ADJ. (adjust) button, you can easily specify exposure compensation, ISO sensitivity, and other settings.

NEW ■Electronic vibration correction function

The G700SE utilizes the new electronic vibration correction function that takes two exposures at high speed with the differences being calculated. It is a powerful tool when shooting in low light and when shooting telephoto.

■Skew correction function

Rectangular objects photographed at an angle are corrected so they appear to have been shot squarely. The before-correction image is also recorded.

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NEW | **Boasting a wide viewing angle, the 3.0-inch 920,000-dot picture display is easy-to-see and easy-to-use even outdoors**

The G700SE has a large 3.0-inch 920,000-dot high-definition picture display. The wide angle and high contrast give high visibility even outdoors.

*Simulated image.

NEW | **Electronic level enables level photography**

For level shooting, an electronic level is provided as a standard feature. It enables you to hold the camera in an accurate level position when shooting subjects such as buildings and interiors. *Simulated image.

■Date display when camera is turned on

Date information is indispensible when creating photographic records. By displaying the date from the time the camera is turned on until the shutter release button is pressed, this function helps prevent time data errors caused by incorrect date/time settings.

NEW | **SD WORM (write once read many) memory card supported**

The G700SE supports the SanDisk Corporation SD WORM (write once read many) card. Since deletes, changes, and card initialization cannot be done, these cards can be used in place of film for original documents when recording police, fire department, and defense-related scenes where data reliability might be questioned. When stored under suitable conditions, the data can be preserved for about 100 years.

* SD WORM cards can be purchased from SanDisk Corporation agents that supply corporate customers.

NEW | **Camera lock functions for a variety of operation controls**

By defining a password, you can lock the camera. In addition to locking the camera as a whole or internal memory playback, you can also limit use to SD WORM cards or just restrict setting changes. The locks and restrictions can be removed through password entry with a software keyboard or bar code.

- 🔒 Lock all camera operations
- 🔒 Lock internal memory playback
- 🔒 Restrict use to SD WORM cards
- 🔒 Restrict camera setting changes

NEW | **Camera memo functions make image management much easier**

When an image is not enough, up to 20 text or voice information fields can be recorded as memos together with the photograph. Selection from multiple memos (up to 99 files) is possible, and memos can also be recorded in internal memory.

→ You can also view in the camera reference images (diagrams, etc.) that correspond to camera memos

*Simulated image.

■Included software EX1 writes camera memo information

The included EX1 software enables files to be renamed based on the contents of camera memos and moved to the desired folder. This convenient function makes it easy to grasp the details of the camera memo from the file name. Additionally, camera memo information can be output in CSV, XML, or TXT formats.

■Image edit detection function increases photo credibility

The G700SE has a high-accuracy image edit detection function to increase data reliability when digital photographs are submitted as evidence. The RSA encryption method is used to make it possible to detect editing with respect to the entire image. By loading the image onto a PC using the EC1 software provided, it is possible to make highly accurate judgments on image edition.

■Form print function for easy printing in easy-to-use layouts

If you connect the G700SE to a Ricoh-compatible printer, it is possible to print out images in easy-to-use form layouts. For details, please see the Ricoh website.

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Equipped with Bluetooth® and Wireless LAN Functions

The camera unit comes equipped with Bluetooth® Ver.2.1 + EDR function and wireless LAN (802.11b/g) function. Images can be sent by high-speed data transfer to smartphones and other supported devices as well as to computers. The camera unit also supports WPS for simple connection and setup to wireless LAN networks. The camera can also multi-task, obtaining position information from an external GPS device via Bluetooth® while transmitting images via wireless LAN to make your workflow easier.

■Bluetooth® Communication Part

Item	Specificatations
Communication Method	Bluetooth® standard Ver. 2.1+EDR
Output	Bluetooth® standard Power Class 2
Communication Range※1	Approximately 10 m (line of sight)
Supported Bluetooth® Profiles※2	BIP, OPP, SPP
Frequency Band	2.4 GHz band (2.400 GHz - 2.4835 GHz)

※1: The communication range may vary depending on obstructions between the two devices, signal strength, software or operating system in use, and other factors. ※2: These are specifications according to the intended use of the Bluetooth®-enabled devices and are predetermined by Bluetooth® standards.

■Wireless LAN Communication Part

Item	Specificatations
Compliance Standard	IEEE802.11b/g
Transmission Method	IEEE802.11g: OFDM IEEE802.11b: DSSS, DQPSK, DBPSK
Data Transfer Speed※1	IEEE802.11g: 54M/48M/36M/24M/18M/12M/9M/6M (bps) IEEE802.11b: 11M/5.5M/2M/1M (bps)
Communication Range※2	Approximately 30 m This varies depending on the location of the devices, usage environment, and usage conditions.
Security Protocol	WEP (64/128bit), WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES)
Frequency Band	2.4 GHz band (2.412 - 2.462 GHz)

※1: The data transfer speeds are the maximum theoretical values based on the wireless LAN standard and may differ from the actual data transfer speed. ※2: The communication range may vary depending on obstructions between the two devices, signal strength, location of the devices, usage environment, software or operating system in use, and other factors.

GPS Unit with Electronic Compass GP-1 ⟨Option⟩

By connecting the compact GP-1 GPS unit, you can attach location information to pictures or movies taken with the camera. And thanks to the electronic compass support, you can also register direction information to recorded images. Even with the GP-1 attached, the camera supports IP64 dirt resistance and waterproofing, and can withstand the impact of a 1.2m fall.

GPS Accuracy: 2D RMS approx. 5m
*During clear skies (fine weather with no obstructions, and an angle of elevation greater than 30 degrees)
Digital compass direction accuracy: ±6 degrees *Measurement error calculated from Magnetic north

Bar code reader function useful for camera memo and password input

The reading of one and two dimensional bar codes is supported. The saving of bar codes as camera memos can be useful for freight management in logistics, prevention of patient data mix-ups in medical facilities, etc.

4961311010101

One dimensional bar code   two dimensional code

Bar code read with lens and data recorded in camera memo → Data written to image → Photo and bar code managed together

Laser Barcode Reader Unit BR-1 ⟨Option⟩

The camera is able to read 1-dimensional barcodes when Barcode Unit BR-1 is attached. As the Barcode Unit BR-1 emits laser light in order to read the barcode, the recognition speed of the main camera lens section is very fast, and barcodes can be read even in dark places. Even with the BR-1 attached, the camera supports IP64 dirt resistance and waterproofing, and can withstand the impact from a 1.5m fall.

*This unit is a "Class 1 Laser Product".

Read/write code (one-dimensional bar code only)

● Chinese 2 of 5	● EAN-13
● Codabar	● UCC/EAN128
● Code 11	● MSI
● Code 32 (Italian Pharma Code)	● Interleaved 2 of 5
	● Discrete 2 of 5
● Code 39	● UPC-A
● Code 39 Full ASCII	● UPC-E
● Code 93	● JAN/UPC/EAN
● Code 128	● JAN/UPC/EAN with Supplementals
● EAN-8	

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＜Accessories included＞
①AV Cable
②USB Cable (Mini B Cable)
③CD-ROM
④Recageable Battery
⑤Battery Charger
⑥Neck Strap
●Instruction Manual(Camera User Guide)*Warranty Card
*Softweare manual spplied on CD-ROM

＜Optional Accessories＞
❶GPS Unit (GP-1)
❷Barcode Reader Unit (BR-1)

■G700SE Major Specifications

Item		Specificatations
No. of effective pixels (camera)		Approx. 12.10 million effective pixels
Image Sensor		1/2.3" CCD (Approx. 12.40 total million pixels)
Lens	Focal Length	5.0 mm to 25 mm (equivalent to 28 mm to 140 mm on a 35-mm camera)
	F-aperture	F3.5 (Wide-angle) to F5.5 (Telephoto)
	Shooting Distance	Normal shooting: Approx. 30 cm to ∞ (Wide-angle) or 50 cm to ∞ (Telephoto) (from the front of the lens)
		Macro shooting: Approx. 1 cm to ∞ (Wide-angle[※1]), 15 cm to ∞ (Telephoto) or 1 cm to ∞ (Telephoto) (from the front of the lens)
	Lens Construction	11 elements in 9 groups plus 1 prism
	Filter size	37 mm
Zoom Magnification		Optical zoom at 5.0× (focal length equivalent to 28 mm to 140 mm on a 35 mm camera)
		Digital zoom at 4.0×, up to 20.0x (560 mm equivalent) in combination with optical zoom
		Auto resize zoom at approx. 6.3×[※2], up to 31.5x (882 mm equivalent) in combination with optical zoom
Focus Modes		Multi AF (CCD method)/Spot AF (CCD method)/MF/Snap/∞ (with focus lock and AF Auxiliary Light)
Blur Reduction		Digital image stabilizer
Shutter Speed[※3]	Still Image	8, 4, 2, 1 to 1/1500 seconds
	Movie	1/30 to 1/10000 seconds
Exposure Control	Exposure Metering Mode	Multi Light Metering (256 segments)/Center-weighted Light Metering/Spot Metering (TTL-CCD Metering and AE lock possible)
	Exposure Control Mode	Program AE
	Exposure Compensation	Manual exposure compensation (+2.0 to −2.0 EV in 1/3 EV Steps), Auto bracket function (−0.5 EV, ±0, +0.5 EV)
ISO Sensitivity (Standard Output Sensitivity)		Auto/ISO 64/ISO 100/ISO 200/ISO 400/ISO 800/ISO 1600/ISO 3200
White Balance Mode		Auto/Outdoors/Cloudy/Incandescent 1/Incandescent 2/Fluorescent/Manual/Ring Light, White balance bracket function
Flash	Flash Mode	Auto flash (fires automatically in low-light conditions and when the subject is backlit)/Anti Red-eye/Flash On/FLASH On (10M)/Slow Synchro/Flash Off
	Built-in flash Range	Approx. 20 cm to 3.9 m (Wide-angle), approx. 40 cm to 2.5 m (Telephoto) (Flash Mode: Auto, from the front of the lens) Approx. 1.4 m to 10.0 m (Wide-angle), approx. 1.4 m to 6.2 m (Telephoto) (Flash Mode: Auto, from Flash On (10M), from the front of the lens)
Picture Display		3.0″ Transmissive amorphous silicon TFT LCD, approx. 920,000 dots
Shooting Mode		Auto shooting mode/Scene mode (High Sens/Firefighting/Skew Correct Mode/Text Mode/Zoom Macro/Movie)/My settings mode/CALS mode
Picture Quality Mode[※4]		F (Fine), N (Normal)
Number of Recorded Pixels	Still Image	[4 : 3] 4000 × 3000, 2592 × 1944, 2048 × 1536, 1600 × 1200, 1280 × 960, 640 × 480 [3 : 2] 3984 × 2656
	Movie	1280 × 720, 640 × 480, 320 × 240
	Text	4000 × 3000, 2048 × 1536
Recording Media		SD memory card (3.3V 256MB, 512MB, 1GB, 2GB), SDHC memory card (up to 32 GB), SD WORM card[※5](128MB, 1GB), Internal Memory (approx. 103 MB)
Number of Pictures and Time[※6] (Internal: approx 103MB)	Still image	4000 × 3000 F: 22 pictures N: 38 pictures, 3984 x 2656 F: 25, 2592 x 1944 F: 45, 2048 x 1536 N: 72, 1600 x 1200 F: 116, 1280 x 960 F: 141 N: 265, 640 x 480 F: 509
	Movie[※7]	1280 × 720 20 seconds, 640 x 480 58 seconds, 320 x 240 2 minutes 22 seconds
Recording File Format	Still Image	JPEG (Exif Ver. 2.21)[※8]
	Text	JPEG (Exif Ver. 2.21)[※8]
	Movie	AVI (Open DML Motion JPEG Format Compliant)
Bar Codes Supported (when read with camera unit itself)	Linear	EAN-13/8 (JAN-13/8), UPC-A/E, UPC/EAN (with add-ons), Interleaved 2 of 5, CODEBAR (NW-7), CODE 39, CODE 93, CODE 128 TYPE C, GS1-128 (EAN-128), and RSS (GS1 DataBar)
	Matrix	QR Code, Micro QR Code, DataMatrix(ECC200), PDF417, Micro PDF417, MaxiCode, EAN・UCC Composite(GS1 DataBar Composite)
Other Major Shooting Functions		Continuous mode, Self-timer (operation time: approx. 10 seconds, approx. 2 seconds), Interval timer (shooting interval: 5 seconds to 3 hours, in increments of 5 seconds)[※9], Histogram display, Grid guide display
Other Major Playback Functions		Thumbnail view, Enlarged view (maximum 16×), Resize, Contrast Correction
Interface		USB2.0 Mini-B, High-Speed USB, AV output, Mass storage-compatible[※10]
Power Supply		Rechargeable Battery (DB-65) x1, AAA Alkaline Battery x 2, AAA Nickel-Hydrogen Battery x 2
Battery life[※11]		Based on CIPA standard, DB-65: approx. 360 shots AAA alkaline: 40 shots[※12]
Dimensions (W × H × D)		118.8 mm × 71.0 mm × 41.0 mm, 32.0 mm (D) at thinnest, excluding projections
Weight		Approx. 286 g (excluding battery, SD memory card, and strap), Approx. 314 g (excluding supplied battery and SD memory card)
Water Resistance/ Dust Resistance/ Chemical Resistance		JIS/IEC waterproof grade 8, shooting to a water depth of approx. 5 m[※13] JIS/IEC dustproof grade 6 External cleaning possible with ethanol and sodium hypochlorite for disinfection
Operating Temperature		−10 °C to 40 °C

※ 1 : The macro shooting wide-angle setting is f=5.9mm at a 33 mm focal length (35 mm equivalent).
※ 2 : Image size is VGA.
※ 3 : The upper and lower limits differ for each shooting mode and flash mode.
※ 4 : The picture quality mode that can be set varies depending on the image size.
※ 5 : SD WORM cards can be purchased from SanDisk Corporation agents that supply corporate customers.
※ 6 : The estimated number of pictures that can be recorded or the estimated recording time.
※ 7 : The maximum movie length that can be recorded at one time is either 90 minutes or 4 GB. When shooting movies of 1280 × 720 size, the use of an SD/SDHC memory card with an SD speed class of Class 6 or higher is recommended.
※ 8 : Compatible with DCF and DPOF. DCF is the abbreviation for "Design rule for Camera File system," a JEITA standard (Full compatibility with other devices is not guaranteed).
※ 9 : When the flash is set to [Flash Off].
※10 : Mass storage mode is supported by Windows® 2000, Windows® XP, Windows Vista®, Windows® 7, Mac OS 9.0–9.2.2, and Mac OS X 10.1.2–10.6.3.
※11 : The number of remaining shots is based on the CIPA standard and may vary depending on usage conditions. This is for reference only.
※12 : When using the AAA Alkaline batteries manufactured by Panasonic.
※13 : At a water depth of up to 5 m, a maximum of approximately two hours of shooting is possible. Optimal shooting may not be possible depending on the water environment.

For detailed specifications of the Bluetooth® communication section and wireless LAN communication section, see the back of this catalog.

■G700SE Optional Accessories

Product Name	Model Name
GPS Unit	GP-1
Barcode Reader Unit	BR-1
Wide Conversion Lens	DW-5
Rechargeable Battery	DB-65
Battery Charge	BJ-6
Soft Case	SC-700

■G700SE Software

	Windows® 7	Windows Vista®	Windows® XP	Windows® 2000
1. DL-10	○	○	○	○
2. MediaBrowser	○	○	○	×
3. Adobe Reader®	○	○	○	○
4. ListEditor	○	○	○	○
5. ME1	○	○	○	○
6. EC1	○	○	○	○
7. EX1	○	○	○	○
8. ST10	○	○	○	○
9. SR10	○	○	○	○

■G700SE System Requirements

	Windows®
Operating Systems Supported	Windows® 2000 Professional Service Pack 4, Windows® XP Home Edition Service Pack 3/Professional Service Pack 3, Windows Vista® Service Pack 2, Windows® 7 (32- and 64-bit)
CPU	Pentium® IV: 1.6 GHz or faster, Pentium® M: 1.4 GHz or faster, Core™ 2 Duo: 1.5 GHz or faster
Memory	Windows® 2000/Windows® XP: 512 MB or more, Windows Vista®/Windows® 7: 1 GB or more
Hard drive space required for installation	300 MB or more
Display Resolution	1024 × 768 pixels or greater
Display Colors	65,000 colors or greater
CD-ROM Drive	A CD-ROM drive compatible with the above-mentioned computer
USB Port	A USB port compatible with the above-mentioned computer

*The CD-ROM supports Japanese, English, French and German. Operations are not guaranteed on operating systems with other languages.
*64-bit Windows Vista is not supported.
*If your computer has an upgraded OS, the USB function may not work normally, so it cannot be supported.
*The provided software may not operate properly if changes are made to the operating system, such as with patches and service package releases.
*The camera does not support connection to a USB port added by using an extension function (PCI bus or other).
*If used in conjunction with a hub or other USB devices, the software may not work properly.
*When dealing with movies and other large files, a larger memory environment is recommended.
*MediaBrowser is not supported under Windows 2000.

■SD Memory Card Storage Capacity (Number of Images and Time)

Mode	Image Size	Internal Memory (103MB)	1GB	2GB	4GB	8GB	16GB	32GB
Still	4000×3000（F）	22	210	404	810	1,630	3,283	6,534
	4000×3000（N）	38	365	701	1,403	2,824	5,688	11,320
	3984×2656（F）	25	238	457	914	1,840	3,706	7,375
	2592×1944（F）	45	433	826	1,653	3,327	6,701	13,336
	2048×1536（F）	72	683	1,311	2,623	5,281	10,635	21,164
	1600×1200（F）	116	1,102	2,080	4,162	8,377	16,869	33,571
	1280×960（F）	141	1,337	2,514	5,029	10,122	20,383	40,565
	1280×960（N）	265	2,514	4,641	9,284	18,687	37,631	74,890
	640×480（F）	509	4,834	8,620	17,243	34,705	69,887	152,941
Movie	1280×720 30fps	20″	183″	373″	734″	1,494″	3,006″	6,031″
	640×480 30fps	58″	534″	1,087″	2,135″	4,344″	8,742″	17,536″
	320×240 30fps	142″	1,294″	2,633″	5,170″	10,522″	21,170″	42,467″

*The figures for storage capacity assume that no camera memo lists, voice memos, or other camera system files are stored in the internal memory or on an SD memory card.
*The maximum recording time is the estimated total recording time.

For more information, visit :

http://www.ricoh.com/r_dc

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