




1. Product Specification

1-1 Specifications

Image sensor					
Type	1/2.33" (Approx. 7.79 mm) CCD				
Effective pixels	Approx. 12.2 mega-pixels				
Total pixels	Approx. 12.4 mega-pixels				
Lens					
Focal length	Schneider-KREUZNACH lens f = 4.9 - 22.5 mm (35 mm film equivalent: 27 - 124.2 mm)				
F No.	F3.5 (W) - F5.9 (T)				
Digital zoom	● Still image mode: 1.0X - 5.0X				
	● Play mode: 1.0X - 12.5X (depending on image size)				
Display					
Type	TFT LCD				
Feature	● Main Display: 3.5" (8.9 cm) Wide 1,152 K Full Touch LCD ● Front Display: 1.5" (3.8 cm) 61 K TFT LCD				
Focusing					
Type	TTL auto focus (Multi AF, Center AF, Face Recognition AF, Face Detection AF, Smart Touch AF, One Touch Shooting)				
Range		Normal	Macro	Auto Macro	Super Macro
	Wide (W)	80 cm - infinity	5 cm - 80 cm	5 cm - infinity	3 cm - 8 cm
	Tele (T)		50cm~80cm	50 cm - infinity	-
Shutter speed					
● Auto: 1/8 - 1/2,000 sec. ● Program: 1 - 1/2,000 sec. ● Night: 8 - 1/2,000 sec. ● Fireworks: 2 sec.					
Exposure					
Control	Program AE				
Metering	Multi, Spot, Center-weighted				
Compensation	±2EV(1/3EV steps)				
ISO equivalent	Auto, 80, 100, 200, 400, 800, 1600, 3200				
Flash					
Mode	Off, Auto, Red-eye, Fill in, Slow Sync, Red-eye Fix				
Range	● Wide: 0.2 m - 3.4 m (ISO Auto) ● Tele: 0.5 m - 2.0 m (ISO Auto)				
Recharging time	Approx. 4 sec.				
Shake reduction					
Dual IS[OIS(Optical Image Stabilization) + DIS(Digital Image Stabilization)]					
Effect					
Shooting mode	● Photo Style Selector: Normal, Soft, Vivid, Forest, Retro, Cool, Calm, Classic, Negative, Custom RGB ● Image Adjust: Sharpness, Contrast, Saturation				
White Balance					
Auto WB. Daylight. Cloudy. Fluorescent H. Fluorescent L. Tungsten. Custom Set					

Shooting	
Photos	<ul style="list-style-type: none"> • Modes: Smart Auto (Macro, Macro Text, White, Landscape, Action, Tripod, Night, Night Portrait, Backlight, Backlight Portrait, Portrait), Auto, Program, DUAL IS, Beauty Shot, Movie, Photo Help Guide, Scene (Night, Portrait, Children, Landscape, Text, Close Up, Sunset, Dawn, Backlight, Firework, Beach & Snow, Frame Guide) • Drive: Single, Continuous, Motion Capture, AEB • Timer: 10 sec, 2 sec, Double, Motion Timer, Remote
Videos	<ul style="list-style-type: none"> • Format: H.264 (Max recording time: 20 min) with stereo recording • Size: 1280 x 720 (30 FPS, 15 FPS) High Quality, 1280 x 720 (30 FPS, 15 FPS) Standard Quality, 640 x 480 (30 FPS, 15 FPS), 320 x 240 (60 FPS, 30 FPS, 15 FPS) • 3.6X Optical zoom with sound recording and mute in zooming (sound is muted when operating the zoom function) • Frame Rate: 60 FPS, 30 FPS, 15 FPS • Voice: Off, On • OIS: On, Off • Video editing (embedded): Pause during recording, Still image capture, Time trimming
Playback	
Type	Single image, Thumbnails, Multi slide show, Movie clip, Smart Album
Edit	Resize, Rotate, Photo Style Selector, Image Adjust
Effect	<ul style="list-style-type: none"> • Photo Style Selector: Normal, Soft, Vivid, Forest, Retro, Cool, Calm, Classic, Negative, Custom RGB • Image Adjust: ACB, Red-eye Fix, Face Retouch, Brightness, Contrast, Saturation, Add Noise
Voice recording	
<ul style="list-style-type: none"> • Voice Recording (Max 10 hours) • Voice Memo in a photo (Max. 10 sec.) • Stereo recording 	
Storage	
Media	<ul style="list-style-type: none"> • Internal memory: Approx. 100 MB • External memory (Optional) <ul style="list-style-type: none"> - SD card (up to 4 GB guaranteed) - SDHC card (up to 8 GB guaranteed) - MMC Plus (up to 2 GB guaranteed, 4 bit 20 MHz) <p>Internal memory capacity may not match these specifications.</p>
File format	<ul style="list-style-type: none"> • Photo: JPEG (DCF), EXIF 2.21, DPOF 1.1, PictBridge 1.0 • Video: MP4 (H.264 (MPEG4.AVC)) • Audio: WAV

Audio output					
Image size			Super fine	Fine	Normal
	12M	4000 X 3000	145	281	399
		3984 X 2656	166	310	436
		3840 X 2160	200	363	522
	8M	3264 X 2448	209	357	531
	5M	2560 X 1920	339	630	860
	3M	2048 X 1536	526	885	1,198
		1920 X 1080	873	1,455	1,909
	1M	1024 X 768	1,697	2,037	2,350
For 1GB microSD™					
These figures are measured under Samsung's standard conditions and may vary depending on shooting conditions and camera settings.					
Wireless network					
Wi-Fi		IEEE 802.11 b/g			
DLNA		Version: 1.5			
GPS		<ul style="list-style-type: none">● Internal GPS module● WGS 84			
Bluetooth		<ul style="list-style-type: none">● Version: 2.0● QD ID: B015611			
Interface					
Digital output connector		USB 2.0 (34 pin)			
Audio output		Mono (Internal speaker), Stereo (Microphone)			
Video output		<ul style="list-style-type: none">● AV: NTSC, PAL (selectable)● HDMI 1.2: NTSC, PAL (selectable) HDMI is available when it is connected to the optional cradle.			
DC power input connector		34 pin, 4.2V			
Power source					
Rechargeable battery		Lithium-ion battery (SLB-11A, 1130 mAh)			
The power source may differ depending on your region.					
Dimensions (W x H x D)					
99.8 x 60.8 x 18.9 mm					
Weight					
156 g (without battery and memory card)					
Operating temperature					
0 ~ 40°C					
Operating humidity					
5 ~ 85%					
Software					
Intelli-studio					

1-2 Instructions on how to use the memory card

You can use microSD™ (Secure Digital) memory cards.

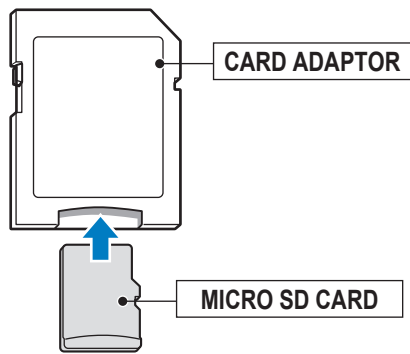


Fig. 1-1 microSD™

The memory capacity may differ depending on shooting scenes or shooting conditions. These capacities are based on a 1 GB microSD™ card:

<Table 1-1>

Recorded image size		Super Fine	Fine	Normal	30 FPS	15 FPS
Photos	12M	145	281	399	-	-
	10M	166	310	436	-	-
	9M	200	363	522	-	-
	8M	209	357	531	-	-
	5M	339	630	860	-	-
	3M	526	885	1,198	-	-
	2M	873	1,455	1,909	-	-
	1M	1,697	2,037	2,350	-	-
*Videos	1280 HQ	-	-	-	Approx. 13' 21"	Approx. 23' 20"
	1280	-	-	-	Approx. 15' 10"	Approx. 32' 11"
	640	-	-	-	Approx. 37' 25"	Approx. 66' 45"
	320	-	-	Approx. 78' 20"	Approx. 136' 47"	Approx. 235' 02"



- The recordable time may vary if you use the zoom.
- Several videos were recorded in succession to determine the total recording time.
- If there is card error, please check below first and guide your customer.
 - Check that there is any dust or substance on the memory card contact.
 - When you use card adaptor, be aware of dust or substance(like a hair) that can be inserted into card adaptor.

1-3 LCD monitor indicator

■ The LCD monitor displays information about the shooting functions and selections.

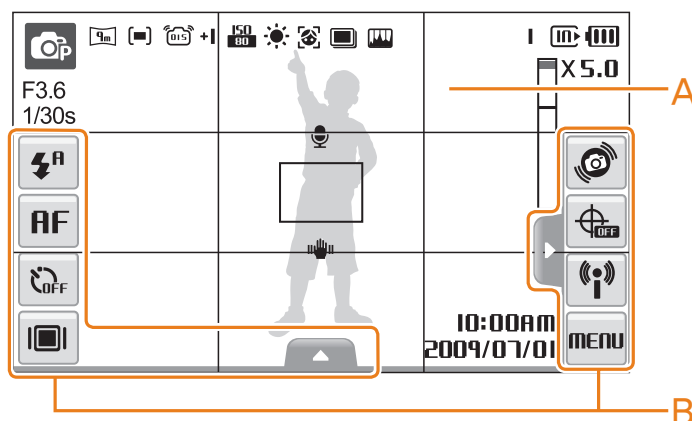


Fig. 1-2

A. Status icons

Icon	Description
	Shooting mode
F3.6 1/30s	Aperture and shutter speed
	Photo resolution
	Video resolution
	Metering
	Optical Image Stabilisation (OIS)
	Frame rate
+I	Exposure value
	ISO speed
	White balance
	Face detection
	Burst mode
	Image adjustment (sharpness, contrast, saturation)
	Photo styles
I	Available number of photos
00:01:00	Available recording time
	Internal memory
	Memory card inserted
	<ul style="list-style-type: none"> : Fully charged : Partially charged : Charging needed
X5.0	Zoom ratio
	Voice memo
	Auto focus frame
	Camera shake
●○○	Option set 1 (of 3)
10:00AM 2009/07/01	Current date and time
	Grid lines

B. Option icons (touch)

Icon	Description
	Flash option
	Auto focus option
	Timer option
	Display type
	<ul style="list-style-type: none"> : Motion recognition : GPS options and status : Network and Bluetooth menus : Shooting options and settings menu
	Image setting options <ul style="list-style-type: none"> : Exposure value : White balance : ISO speed : Face tone : Face retouch : Focus area option : Face detection option : Photo resolution : Video resolution : Photo quality : Frame rate : Exposure with ACB : Metering option : Burst type : Photo styles : Image adjustment (sharpness, contrast, saturation) : Long time shutter : Optical Image Stabilisation (OIS) : Audio recording : Another row of options

1-4 Camera Connection Diagram

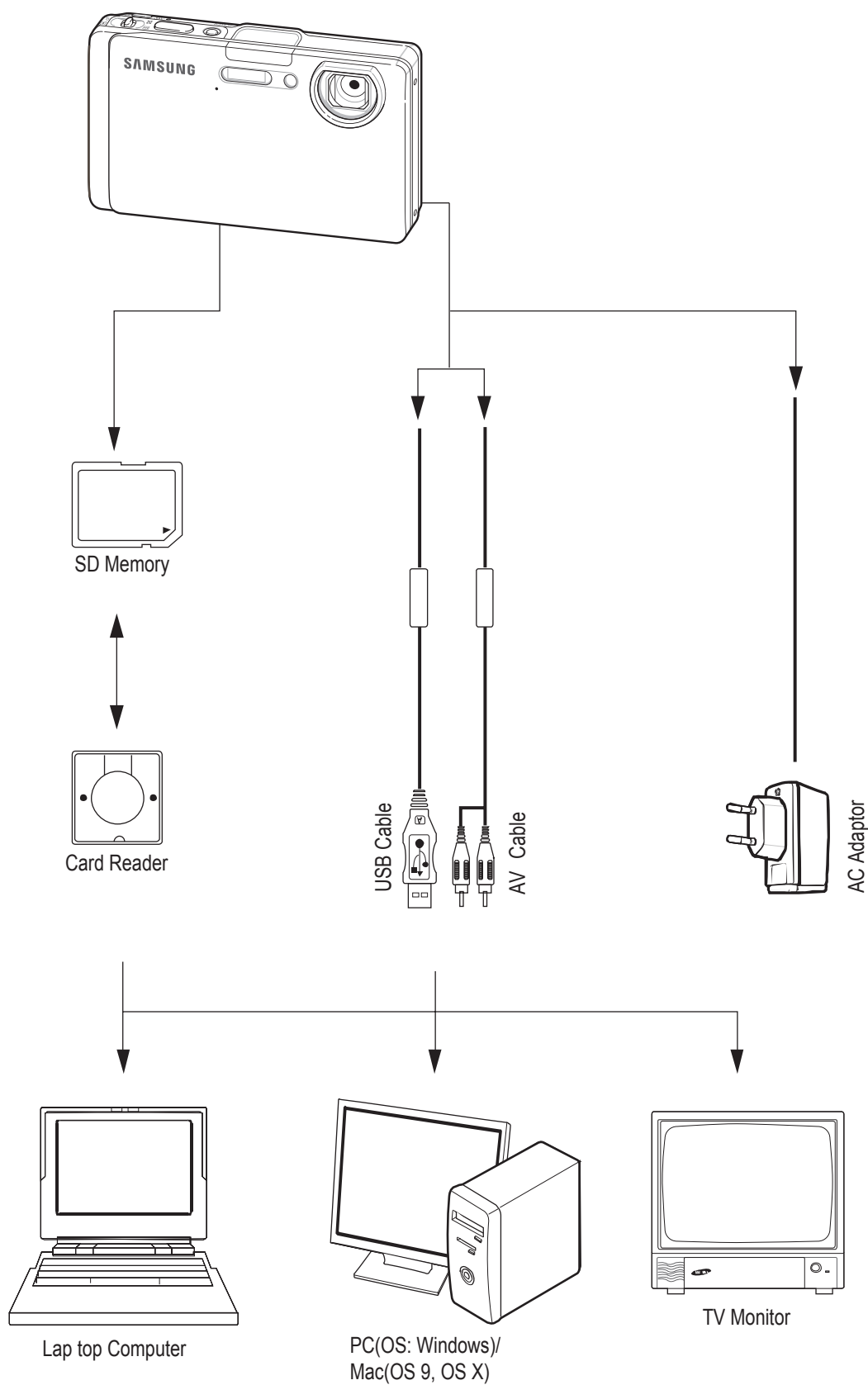


Fig. 1-3 Camera Connection Diagram

1-5 Identification of features

Front & Top

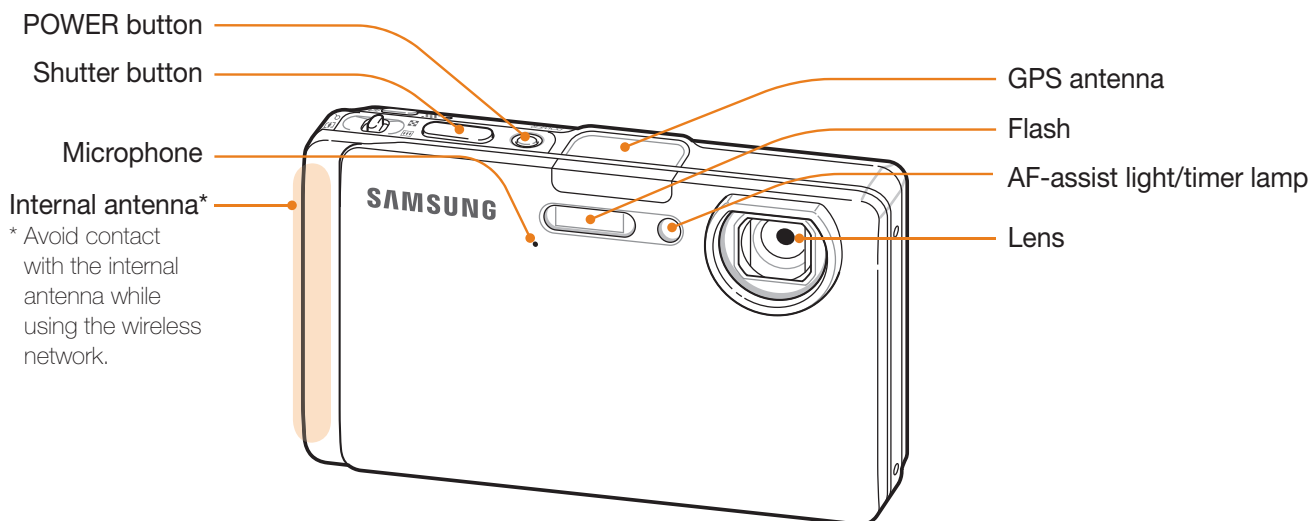


Fig. 1-4 Front & Top

Bottom

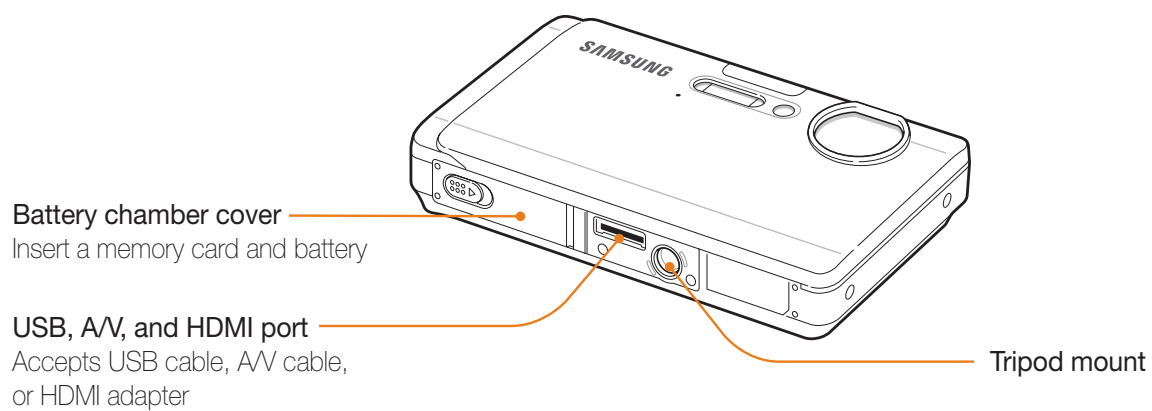


Fig. 1-5 Bottom

Back

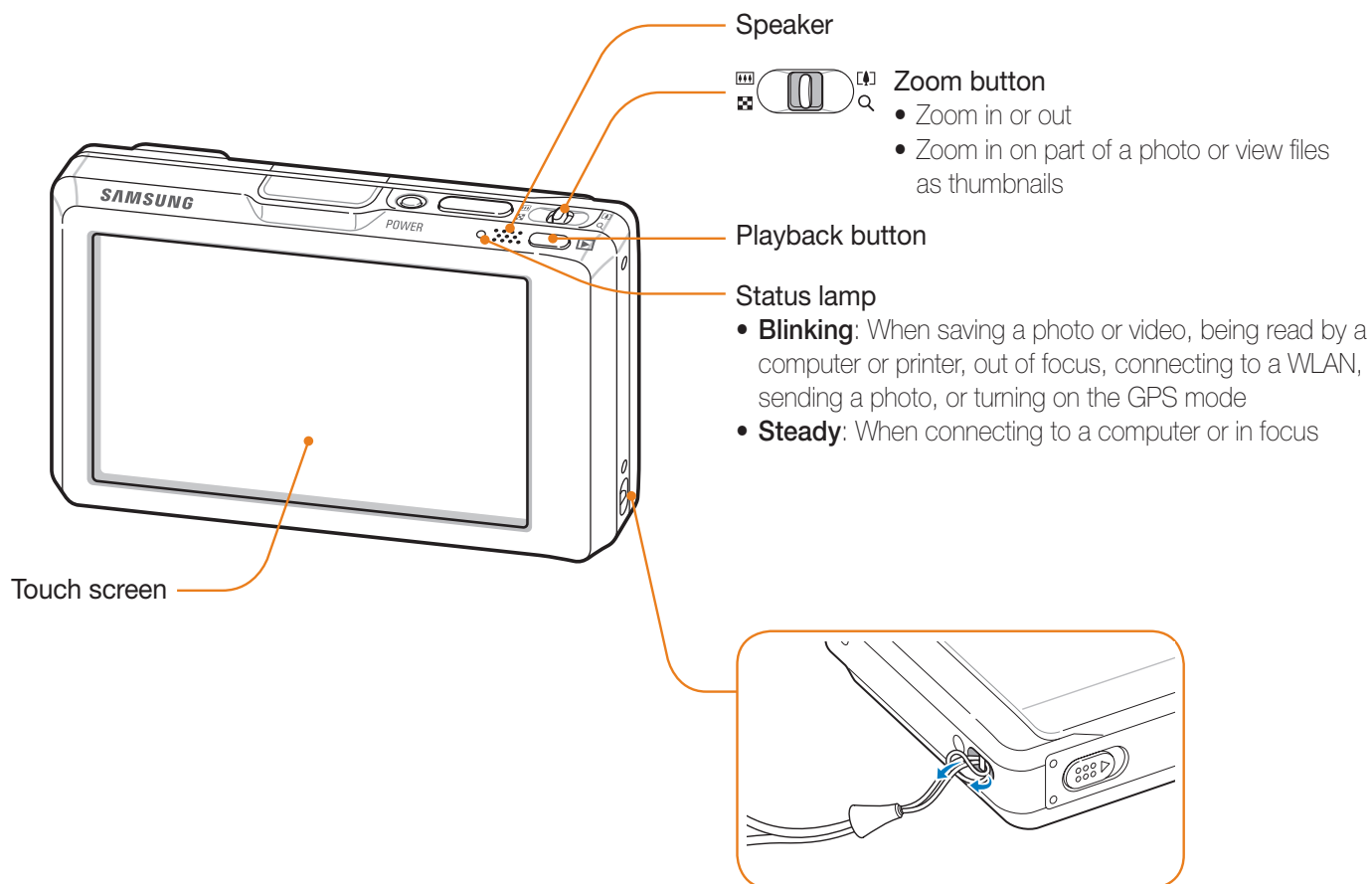


Fig. 1-6 Back