

# Main specifications of α7S

General		
Camera type		Interchangeable-lens digital camera
Lens mount		α E-mount
Image sensor		
Type		35mm full frame (35.6 x 23.8mm), <i>Exmor</i> CMOS sensor
Number of pixels (effective)		Approx. 12.2 megapixels
Number of pixels (total)		Approx. 12.4 megapixels
Image sensor aspect ratio		3:2
Anti-dust system		Charge protection coating on optical filter and ultrasonic vibration mechanism
Recording system (still images)		
Recording format		JPEG (DCF Ver. 2.0, Exif Ver. 2.3, MPF baseline compliant), RAW (Sony ARW 2.3 format)
Image size (pixels)	3:2 aspect ratio	35mm full frame L: 4240 x 2832 (12M), M: 2768 x 1848 (5.1M), S: 2128 x 1416 (3.0M)
		APS-C L: 2768 x 1848 (5.1M), M: 2128 x 1416 (3.0M), S: 1376 x 920 (1.3M)
	16:9 aspect ratio	35mm full frame L: 4240 x 2384 (10M), M: 2768 x 1560 (4.3M), S: 2128 x 1200 (2.6M)
	Sweep Panorama	Wide: horizontal 12416 x 1856 (23M), vertical 5536 x 2160 (12M), Standard: horizontal 8192 x 1856 (15M), vertical 3872 x 2160 (8.4M)
Image quality modes		RAW, RAW & JPEG, JPEG Extra fine, JPEG Fine, JPEG Standard
RAW output		14 bit
Picture Effect		13 modes: Posterization (Color, B/W), Pop Color, Retro Photo, Partial Color (R, G, B, Y), High Contrast Monochrome, Toy Camera, Soft High-key, Soft Focus, HDR Painting, Rich-tone Monochrome, Miniature, Watercolor, Illustration
Creative Style		Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn Leaves, Black & White, Sepia (Contrast -3 to +3 steps, Saturation -3 to +3 steps, Sharpness -3 to +3 steps) (Style Box 1-6 also provided)
Dynamic range functions		Off, Dynamic Range Optimizer (Auto/Level (1-5)), Auto High Dynamic Range: Auto Exposure Difference, Exposure Difference Level (1.0-6.0 EV, 1.0 EV step)
Color space		sRGB standard (with sYCC gamut) and Adobe RGB standard compatible with TRILUMINOS™ Color
Picture Profile		Yes (Off / PP1-PP7) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2), Black Gamma, Knee, Color Mode, Color Level, Color Phase, Color Depth, Detail, Copy, Reset
Recording system (movies)		
Recording format		XAVC S / AVCHD format Ver. 2.0 compliant / MP4
Video compression		XAVC S: MPEG-4 AVC/H.264
		AVCHD: MPEG-4 AVC/H.264
Audio recording format		MP4: MPEG-4 AVC/H.264
		XAVC S: LPCM, 2ch
		AVCHD: Dolby Digital (AC-3), 2ch, Dolby Digital Stereo Creator
		MP4: MPEG-4 AAC-LC, 2ch
Image size (pixels)	1080 60i compatible device	XAVC S: 1920 x 1080 (60p/50Mbps, 30p/50Mbps, 24p/50Mbps), 1280 x 720 (120p/50Mbps)
		AVCHD: 1920 x 1080 (60p/28Mbps/PS, 60i/24Mbps/FX, 60i/17Mbps/FH, 24p/24Mbps/FX, 24p/17Mbps/FH)
	1080 50i compatible device	MP4: 1440 x 1080 (30fps/12Mbps), 640 x 480 (30fps/3Mbps)
		XAVC S: 1920 x 1080 (50p/50Mbps, 25p/50Mbps, 24p/50Mbps), 1280 x 720 (100p/50Mbps)
		AVCHD: 1920 x 1080 (50p/28Mbps/PS, 50i/24Mbps/FX, 50i/17Mbps/FH, 25p/24Mbps/FX, 25p/17Mbps/FH)
		MP4: 1440 x 1080 (25fps/12Mbps), 640 x 480 (25fps/3Mbps)
Movie functions		Audio Level Display, Audio Rec Level, Auto Slow Shutter, HDMI info. Display (On/Off selectable), Time Code/User Bit, Clean HDMI output for 4K, Picture Profile, Creative Style, Picture Effect, Rec Control, Dual Video Rec, Marker Setting
Color space		xvYCC standard (x.v.Color when connected via HDMI cable) compatible with TRILUMINOS™ Color
Clean HDMI output		
	1080 60i compatible device	3840 × 2160(30p/24p) / 1920 × 1080(60p/24p) / 1920 × 1080(60i),YCbCr 4:2:2 8bit/ RGB 8bit
	1080 50i compatible device	3840 × 2160(25p) / 1920 × 1080(50p) / 1920 × 1080(50i),YCbCr 4:2:2 8bit/ RGB 8bit
Media		
Media		<i>Memory Stick PRO Duo</i> , <i>Memory Stick PRO-HG Duo</i> , <i>Memory Stick XC-HG Duo</i> , SD memory card, SDHC memory card (UHS-I compliant), SDXC memory card (UHS-I compliant)
Slot		Multi slot for <i>Memory Stick Duo</i> / SD Memory card
Noise reduction		
Noise reduction		Long exposure NR: On/Off, available at shutter speeds longer than 1 sec., High ISO NR: Normal/Low/Off selectable
Multi Frame NR		Auto/ISO 100 to 409600
White balance		
Modes		Auto WB / Daylight / Shade / Cloudy / Incandescent / Fluorescent (Warm White / Cool White / Day White / Daylight) / Flash / Color Temperature (2500 to 9900K) & Color Filter (G7 to M7: 15 steps, A7 to B7: 15 steps) / Custom / Underwater
AWB micro adjustment		G7 to M7 (15 steps), A7 to B7 (15 steps)
Bracketing		3 frames, H/L selectable
Focus system		
Type		Contrast-detection AF
Focus point		25 points
Sensitivity range		EV -4 to EV 20 (at ISO 100 equivalent with F2.0 lens attached)
AF modes		Single-shot AF (AF-S), Continuous AF (AF-C), Direct Manual Focus (DMF), Manual Focus
Focus area		Wide (25 points) / Center-weighted / Flexible Spot (S/M/L) / Zone
Other features		Lock-on AF, Eye AF, Predictive control, Focus lock; Eye-start AF and AF micro adjustment (both only available with optional LA-EA2 or LA-EA4 attached), AF illuminator (built-in, LED type, range: Approx. 0.30-3m), AF ON
Exposure control		
Metering type		1200-zone evaluative metering
Metering sensor		<i>Exmor</i> CMOS sensor
Metering sensitivity		EV -3 to EV 20 (at ISO 100 equivalent with F2.0 lens attached)
Metering modes		Multi-segment, Center-weighted, Spot
Exposure modes		AUTO (iAUTO, Superior Auto), Programmed AE (P), Aperture priority (A), Shutter-speed priority (S), Manual (M), Scene Selection, Sweep Panorama, Movie
Scene Selection		Portrait, Landscape, Macro, Sports Action, Sunset, Night Portrait, Night Scene, Hand-held Twilight, Anti Motion Blur
Exposure compensation		+/-5.0 EV (in 1/3 EV or 1/2 EV steps), with exposure compensation dial: +/-3.0 EV (in 1/3 EV steps)
AE bracketing		With 3 frames in 1/3 EV, 1/2 EV, 2/3 EV, 1.0 EV, 2.0 EV or 3.0 EV increments. With 5 frames in 1/3 EV, 1/2 EV or 2/3 EV increments.
AE lock		Available with AE lock button. Locked when shutter button is pressed halfway. Can be disabled from the Menu.
ISO sensitivity (Recommended Exposure Index)		Still images: ISO 100-102400, Movies: ISO 200-102400 equivalent (both expandable to 409600, for still: expandable down to 50)
Viewfinder		
Type		XGA OLED, 1.3cm (0.5 type) electronic viewfinder (color)
Total number of dots		2,359,296 dots
Brightness control		Auto/Manual (5 steps between -2 and +2)
Color temperature control		Manual (5 steps)
Field coverage		100%
Magnification		Approx. 0.71x (with 50mm lens at infinity, -1m <sup>-1</sup> )
Diopter adjustment		-4.0 to +3.0m <sup>-1</sup>
Eye point		Approx. 27mm from the eyepiece lens, 22mm from the eyepiece frame at -1m <sup>-1</sup> (CIPA standard)
Display		Graphic Display / Display All Info. / No Disp. Info. / Histogram / Digital Level Gauge
Real-time image-adjustment display		On/Off

<b>LCD screen</b>		
Type		7.5cm (3.0 type) TFT drive
Total number of dots		921,600 dots
Brightness control		Manual (5 steps between -2 and +2), Sunny Weather mode
Adjustable angle		Up approx. 90 degrees, down approx. 45 degrees
Display selector (Finder/LCD)		Auto/Manual
Display		Graphic Display / Display All Info. / No Disp. Info. / Histogram / Digital Level Gauge / Shooting information for viewfinder mode
Real-time image-adjustment display		On/Off
Focus magnifier		35mm full frame: 4.2x, 8.3x, APS-C: 2.7x, 5.4x
Zebra		Yes
Peaking MF		Yes (Level setting: High/Mid/Low/Off, Color: White/Red/Yellow)
<b>Other features</b>		
Face detection		On / On (Regist. Faces) / Off, Face registration, Face selection (Max. number of detectable faces: 8)
Auto Object Framing		Yes
Clear Image Zoom		Still / Movie: Approx. 2x
Digital zoom	Smart zoom (still images)	M: Approx. 1.5x, S: Approx. 2.0x
	Digital zoom (still images)	Approx. 4x
	Digital zoom (movies)	Approx. 4x
PlayMemories Camera Apps		Yes
Lens compensation		Peripheral shading, chromatic aberration, distortion
<b>Shutter</b>		
Type		Electronically controlled, vertical-traverse, focal-plane type
Shutter speed		Still images: 1/8000 to 30 sec., Bulb Movies: 1/8000 to 1/4 (1/3 step) 1080 60i compatible device: Up to 1/60 in AUTO mode (up to 1/30 in Auto Slow Shutter mode) 1080 50i compatible device: Up to 1/50 in AUTO mode (up to 1/25 in Auto Slow Shutter mode)
Flash sync. speed		1/250 sec.
Electronic front curtain shutter		Yes, On/Off
<b>SteadyShot INSIDE (image stabilization)</b>		
Type		Not supported (image stabilization supplied by lens)
<b>Flash Control (with optional external flash)</b>		
Control		Pre-flash TTL
Flash compensation		+/-3.0 EV (switchable between 1/3 and 1/2 EV steps)
Flash bracketing		1/3, 1/2, 2/3, 1, 2, 3 EV steps, 3/5 frames (1.0/2.0/3.0 EV: only 3 frames) selectable
Flash modes		Flash off, Autoflash, Fill-flash, Rear Sync., Slow Sync., Red-eye reduction (On/Off selectable), Hi-speed sync* <sup>1</sup> , Wireless* <sup>1</sup>
External flash		Sony <i>α</i> System Flash compatible with Multi Interface Shoe. Attach the shoe adaptor for flash compatible with Auto-lock Accessory Shoe.
<b>Drive</b>		
Drive modes		Single shooting, Continuous shooting, Speed Priority Continuous shooting, Self-timer (10/2 sec. delay selectable), Self-timer (Cont.) (10 sec. delay; 3/5 exposures selectable), Bracketing (Cont., Single, White Balance, DRO)
Speed (approx., max.)* <sup>2</sup>		Continuous shooting: Max. 2.5fps, Speed Priority Continuous shooting: Max. 5.0fps
No. of recordable frames* <sup>2</sup> (approx.)		Continuous shooting: 88 frames (JPEG Extra Fine L), 200 frames (JPEG Fine L), 200 frames (JPEG Standard L), 61 frames (RAW), 35 frames (RAW & JPEG) Speed Priority Continuous shooting: 65 frames (JPEG Extra Fine L), 200 frames (JPEG Fine L), 200 frames (JPEG Standard L), 30 frames (RAW), 25 frames (RAW & JPEG)
<b>Playback</b>		
Modes		Single (with or without shooting information, Y RGB histogram & highlight/shadow warning), 9/25-frame index view, Enlarged display mode (Maximum magnification L: 13.3x, M: 8.7x, S: 6.7x), Auto Review (10/5/2 sec, off), Image orientation (Auto/Manual/Off selectable), Slideshow, Panorama scrolling, Folder selection (Still / Date / MP4 / AVCHD / XAVC S), Forward/Rewind (Movie), Delete, Protect
<b>Interface</b>		
PC interface		Mass-storage, MTP, PC remote
Multi / Micro USB Terminal		Yes* <sup>3</sup>
Wireless LAN (built-in)		Wi-Fi Compatible, IEEE802.11b/g/n (2.4GHz band)* <sup>4</sup> Playback of still images and movies on smartphones, PCs and TVs
NFC™		Yes (NFC Forum Type 3 Tag compatible, One-touch remote, One-touch sharing)
HD output		HDMI micro connector (Type-D), BRAVIA Sync (link menu), PhotoTV HD, 4K still image playback
Multi Interface Shoe		Yes
Others		Auto-lock Accessory Shoe compatible with supplied shoe adaptor, Microphone terminal (3.5mm Stereo minijack), Headphone terminal (3.5mm Stereo minijack), Vertical Grip Connector
<b>Compatible OS</b>		
		Windows Vista* <sup>5</sup> SP2, Windows 7 SP1, Windows 8, Windows 8.1, Mac OS X (v. 10.6-10.9)
<b>Audio</b>		
Microphone		Built-in stereo microphone or ECM-XYST1M / XLR-K1M (sold separately)
Speaker		Built-in, monaural
<b>Print</b>		
Compatible standards		Exif Print, Print Image Matching III, DPOF setting
<b>Custom function</b>		
Type		Custom key settings, Programmable setting
Memory function		Yes (2 sets)
<b>Power</b>		
Battery		Rechargeable battery pack NP-FW50
Still images		Approx. 320 shots (viewfinder) / approx. 380 shots (LCD screen) (CIPA standard)
Movies		Actual* <sup>6</sup> : Approx. 55 min with viewfinder, approx. 60 min with LCD screen (CIPA standard) Continuous* <sup>7</sup> : Approx. 90 min with viewfinder, approx. 90 min with LCD screen (CIPA standard)
External power		AC Adaptor AC-PW20 (optional)
<b>Weight</b>		
With battery and <i>Memory Stick PRO Duo</i>		Approx. 489g (approx. 1 lb 1.2 oz)
Body only		Approx. 446g (approx. 15.7 oz)
<b>Dimensions</b>		
W x H x D (excluding protrusions)		Approx. 126.9 x 94.4 x 48.2mm (approx. 5 x 3 3/4 x 1 15/16 in.)
<b>Operating temperature</b>		
Range		32°-104°F / 0-40°C

Specifications and features are subject to change without notice.

\*<sup>1</sup> With compatible external flash.

\*<sup>2</sup> Approximate. May vary depending on shooting conditions and media.

\*<sup>3</sup> Supports Micro USB compatible device.

\*<sup>4</sup> Configuration method/Access method: WPS or manually/infrastructure mode. When connecting to smartphones, the camera can always work as a base without a wireless access point. (Security: WEP/WPA-PSK/WPA2-PSK)

\*<sup>5</sup> Starter Edition is not supported.

\*<sup>6</sup> Indicated recording time is defined by repeating the following cycle: Power on, start recording, zoom, stand-by and power off.

\*<sup>7</sup> Indicated recording time is defined by repeating the following cycle: Pressing the MOVIE button. No other operations such as zoom are performed.