# Clifton Cameras Product Specification

## Sony Alpha A7s II Digital Camera Body Camera Full Spec

Lens

**LENS MOUNT**

E-mount

**LENS COMPATIBILITY**

Sony E-mount lenses

Sensor

**SENSOR TYPE**

35 mm

**SENSOR TYPE**

35mm full frame (35.6 x 23.8mm), Exmor CMOS sensor

**NUMBER OF PIXELS (EFFECTIVE)**

Approx.12.2 MP

**NUMBER OF PIXELS (TOTAL)**

Approx.12.4 MP

**IMAGE SENSOR ASPECT RATIO**

3:2

**ANTI-DUST SYSTEM**

Charge protection coating on optical filter and image sensor shift mechanism

Recording (still images)

**RECORDING FORMAT (STILL IMAGES)**

JPEG (DCF Ver. 2.0, Exif Ver. 2.3, MPF baseline compliant), RAW (Sony ARW 2.3 format)

**IMAGE SIZE (PIXELS), 3:2**

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)

**IMAGE SIZE (PIXELS), 16:9**

35mm full frame L: 4240 x 2384 (10M), M: 2768 x 1560 (4.3M), S: 2128 x 1200 (2.6M), APS-C L: 2768 x 1560 (4.3M), M: 2128 x 1200 (2.6M), S: 1376 x 776 (1.1M)

**IMAGE SIZE (PIXELS), 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

**UNCOMPRESSED RAW**

Yes

**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)

**COLOUR SPACE**

sRGB standard (with sYCC gamut) and Adobe RGB standard compatible with TRILUMINOS™ Color

Recording (movie)

**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; MP4: MPEG-4 AVC/H.264

**AUDIO RECORDING FORMAT**

AVCHD: Dolby Digital (AC-3), 2ch, Dolby Digital Stereo Creator, MP4: MPEG-4 AAC-LC, 2ch, XAVC S: LPCM, 2ch

**IMAGE SIZE (PIXELS), NTSC**

AVCHD: 1920 x 1080 (60p/28Mbps/PS, 60i/24Mbps/FX, 60i/17Mbps/FH, 24p/24Mbps/FX, 24p/17Mbps/FH), MP4: 1920 x 1080 (60p/28Mbps, 30p/16Mbps), 1280 x 720 (30p/6Mbps), XAVC S 4K: 3840 x 2160 (30p/100Mbps, 30p/60Mbps, 24p/100Mbps, 24p/60Mbps), XAVC S HD: 1920 x 1080 (60p/50Mbps, 30p/50Mbps, 24p/50Mbps, 120p/100Mbps, 120p/60Mbps)

**IMAGE SIZE (PIXELS), PAL**

AVCHD: 1920 x 1080 (50p/28Mbps/PS, 50i/24Mbps/FX, 50i/17Mbps/FH,25p/24Mbps/FX, 25p/17Mbps/FH), MP4: 1920 x 1080 (50p/28Mbps, 25p/16Mbps), 1280 x 720 (25p/6Mbps), XAVC S 4K: 3840 x 2160 (25p/100Mbps, 25p/60Mbps), XAVC S HD: 1920 x 1080 (50p/50Mbps, 25p/50Mbps, 100p/100Mbps, 100p/60Mbps)

**HIGH FRAME RATE RECORDING**

NTSC: 1920 x 1080 (24p/12Mbps, 30p/16Mbps), PAL: 1920 x 1080 (25p/16Mbps)

**PICTURE PROFILE**

Yes (Off / PP1-PP9) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3), Black Gamma, Knee, Color Mode (Movie, Still, Cinema, Pro, ITU709 Matrix, White&Black, S-Gamut, S-Gamut3.Cine, S-Gamut3), Saturation, Color Phase, Color Depth, Detail, Copy, Reset

**MOVIE FUNCTIONS**

Audio Level Display, Audio Rec Level, Auto Slow Shutter, HDMI info. Display (On/Off selectable), Time Code/User Bit, Picture Profile, Creative Style, Picture Effect, Rec Control, Dual Video Rec, Marker Setting, PAL/NTSC Selector,Gamma Display Assist

**COLOUR SPACE**

xvYCC standard (x.v.Color when connected via HDMI cable) compatible with TRILUMINOS™ Color

Clean HDMI Output

**CLEAN HDMI OUTPUT**

NTSC: 3840 x 2160 (30p/24p) / 1920 x 1080 (60p/24p) / 1920 x 1080 (60i),YCbCr 4:2:2 8bit/ RGB 8bit, PAL: 3840 x 2160 (25p) / 1920 x 1080 (50p) / 1920 x 1080 (50i),YCbCr 4:2:2 8bit/ RGB 8bit

Storage Media

**COMPATIBLE RECORDING MEDIA**

Memory Stick PRO Duo, Memory Stick PRO-HG Duo,Memory Stick Micro (M2),SD memory card, SDHC memory card (UHS-I compliant), SDXC memory card (UHS-I compliant), microSD memory card, microSDHC memory card, microSDXC memory card

**STORAGE MEDIA SLOT**

Multi slot for Memory Stick Duo/ 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

**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: 57 steps, A7 to B7: 29 steps) / Custom / Underwater

**AWB MICRO ADJUSTMENT**

G7 to M7 (57 steps), A7 to B7 (29 steps)

**BRACKETING**

3 frames, H/L selectable

Focus

**FOCUS TYPE**

Contrast-detection AF

**FOCUS POINT**

169 points (contrast-detection AF)

**FOCUS SENSITIVITY RANGE**

EV -4 to EV 20 (at ISO 100 equivalent with F2.0 lens attached)

**AF MODE**

Single-shot AF (AF-S), Continuous AF (AF-C), Direct Manual Focus (DMF), Manual Focus

**FOCUS AREA**

Wide (169 points for contrast-detection AF) / Center / Flexible Spot (S/M/L) / Zone / Expand Flexible Spot / Lock-on AF (Wide / Zone / Center / Flexible Spot (S/M/L) / Expand Flexible Spot)

**OTHER FEATURES**

Lock-on AF, Eye AF, 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

**METERING TYPE**

1200-zone evaluative metering

**METERING SENSOR**

Exmor CMOS sensor

**METERING SENSITIVITY**

EV -3 to EV 20 (at ISO 100 equivalent with F2.0 lens attached)

**METERING MODE**

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 / High Frame Rate (Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M) )

**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)

**AUTO (AE) BRACKETING**

Bracket: Single/Bracket: Cont., 3/5/9 frames selectable. With 3 or 5 frames, in 1/3, 1/2, 2/3, 1.0, 2.0 or 3.0 EV increments, with 9 frames, in 1/3, 1/2, 2/3 or 1.0 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 (expandable to ISO 50-409600), AUTO (ISO 100-12800, selectable lower limit and upper limit), Movies: ISO 100-102400 equivalent (expandable to ISO 100-409600 equivalent), AUTO (ISO 100-12800 equivalent, selectable lower limit and upper limit)

Viewfinder

**VIEWFINDER TYPE**

XGA OLED, 1.3cm (0.5 type) electronic viewfinder (colour)

**NUMBER OF DOTS**

2,359,296 dots

**BRIGHTNESS CONTROL (VIEWFINDER)**

Auto/Manual (5 steps between -2 and +2)

**COLOR TEMPERATURE CONTROL**

Manual (5 steps)

**FIELD COVERAGE**

100%

**MAGNIFICATION**

Approx. 0.78x (with 50mm lens at infinity, -1m-1

**DIOPTRE ADJUSTMENT**

-4.0 to +3.0m-1

**EYE POINT**

Approx. 23mm from the eyepiece lens, 18.5mm from the eyepiece frame at -1m-1(CIPA standard)

**VIEWFINDER DISPLAY**

Graphic Display / Display All Info. / No Disp. Info. / Histogram / Digital Level Gauge

**REAL-TIME IMAGE ADJUSTMENT DISPLAY**

On/Off

LCD Screen

**MONITOR TYPE**

7.5cm (3.0 type) TFT drive

**TOTAL NUMBER OF DOTS**

1,228,800 dots

**BRIGHTNESS CONTROL (LCD)**

Manual (5 steps between -2 and +2), Sunny Weather mode

**ADJUSTABLE ANGLE**

Up approx. 107 degrees, down approx. 41 degrees

**DISPLAY SELECTER (FINDER/LCD)**

Auto/Manual

**LCD DISPLAY**

Display Graphic Display / Display All Info. / No Disp. Info. / Histogram / Digital Level Gauge / Shooting information for viewfinder mode

**REAL-TIME IMAGE ADJUSTMENT DISPLAY (LCD)**

On/Off

**FOCUS MAGNIFIER**

35mm full frame: 4.2x, 8.3x, APS-C: 2.7x, 5.4x

**ZEBRA**

Yes (selectable level + range or lower limit as custom setting)

**PEAKING MF**

Yes (Level setting: High/Mid/Low/Off, Color: White/Red/Yellow)

Other Features

**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

**SMART ZOOM (STILL IMAGE)**

M: Approx. 1.5x, S: Approx. 2.0x

**DIGITAL ZOOM (STILL IMAGE)**

Approx. 4x

**DIGITAL ZOOM (MOVIE)**

Approx. 4x

**PLAYMEMORIES CAMERA APPS™**

Yes

**LENS COMPENSATION**

Peripheral shading, chromatic aberration, distortion

**ZOOM RING ROTATE**

Yes

**IMAGE PROCESSOR**

BIONZ X™

Shutter

**SHUTTER 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) NTSC: Up to 1/60 in AUTO mode (up to 1/30 in Auto Slow Shutter mode) PAL: 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

**SILENT SHOOTING**

Yes, On/Off

Image Stabilization

**STEADYSHOT**

Image Sensor-Shift mechanism with 5-axis compensation (Compensation depends on lens specifications)

**COMPENSATION EFFECT**

4.5 stops (Based on CIPA standard. Pitch/Yaw shake only. With Sonnar T\* FE 55mm F1.8 ZA lens mounted. Long exposure NR off)

Flash Control

**FLASH CONTROL**

Pre-flash TTL

**FLASH COMPENSATION**

+/-3.0 EV (switchable between 1/3 and 1/2 EV steps)

**FLASH BRACKETING**

3/5/9 frames selectable. With 3 or 5 frames, in 1/3, 1/2, 2/3, 1.0, 2.0, 3.0 EV increments, with 9 frames, in 1/3, 1/2, 2/3, 1.0 EV increments.

**FLASH MODES**

Flash off, Autoflash, Fill-flash, Rear Sync., Slow Sync., Red-eye reduction (On/Off selectable), Hi-speed sync 2 , Wireless 2

**EXTERNAL FLASH COMPATIBILITY**

Sony α System Flash compatible with Multi Interface Shoe. Attach the shoe adaptor for flash compatible with Auto-lock Accessory Shoe.

**FE LEVEL LOCK**

Yes

Drive

**DRIVE MODES**

Single shooting, Continuous shooting,Speed Priority Continuous shooting, Self-timer, Self-timer (Cont.), Bracketing (Cont., Single, White Balance, DRO)

**SELF-TIMER**

10 sec. delay/5 sec. delay/2 sec. delay/Continuous self-timer (3 frames after 10 sec. delay/5 frames after 10 sec. delay/3 frames after 5 sec. delay/5 frames after 5 sec. delay/3 frames after 2 sec. delay/5 frames after 2 sec. delay)/Bracketing self-timer (Off/2 sec. delay/5 sec. delay/10 sec. delay)

**SPEED (APPROX. MAX.)**

Speed Priority Continuous shooting: Max. 5fps, Continuous shooting: Max. 2.5fps 3

**NO. OF RECORDABLE FRAMES (APPROX.)**

Speed Priority Continuous shooting: 64 frames (JPEG Extra Fine L), 200 frames (JPEG Fine L), 200 frames (JPEG Standard L), 31 frames (RAW), 26 frames (RAW & JPEG), 24 frames (RAW (Uncompressed)), 24 frames (RAW (Uncompressed) & JPEG) Continuous shooting: 100 frames (JPEG Extra Fine L), 200 frames (JPEG Fine L), 200 frames (JPEG Standard L), 59 frames (RAW), 34 frames (RAW & JPEG), 29 frames (RAW (Uncompressed)), 28 frames (RAW (Uncompressed) & JPEG)

Playback

**PLAYBACK 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 HD / XAVC S 4K), Forward/Rewind (Movie), Delete, Protect

Interface

**PC INTERFACE**

Mass-storage, MTP, PC remote

**MULTI / MICRO USB TERMINAL**

Yes4

**WIRELESS LAN (BUILT-IN)**

5 Playback of still images and movies on smartphones, PCs and TVs, Wi-Fi Compatible, IEEE802.11b/g/n (2.4GHz band)

**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 movie output, 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

Audio

**MICROPHONE**

Built-in stereo microphone or ECM-XYST1M / XLR-K2M (sold separately)

**SPEAKER**

Built-in, monaural

Print

**COMPATIBLE STANDARDS**

Exif Print, Print Image Matching III, DPOF setting

Custom function

**CUSTOM FUNCTION TYPE**

Custom key settings, Programmable setting

**MEMORY FUNCTION**

Yes (2 sets)

Power

**SUPPLIED BATTERY**

Rechargeable battery pack NP-FW50

**BATTERY LIFE (STILL IMAGES)**

Approx. 310 shots (viewfinder) / Approx. 370 shots (LCD screen) (CIPA standard)

**BATTERY LIFE (MOVIES)**

Actual: Approx. 55 min. (viewfinder) / Approx. 60 min. (LCD screen) (CIPA standard); Continuous: Approx. 95 min. (viewfinder) / Approx. 100 min. (LCD screen) (CIPA standard)

**EXTERNAL POWER**

AC Adaptor AC-PW20 (optional)

Size & Weight

**DIMENSIONS (W X H X D)**

126.9 x 95.7 x 60.3 mm

**WEIGHT (WITH BATTERY AND MEMORY CARD INCLUDED)**

584 g (Body Only) / 627g (With battery and Memory Stick PRO Duo)

Others

**OPERATING TEMPERATURE**

32°-104°F / 0-40°C

WiFi® & NFC

**WIRELESS & NETWORK CAPABILITIES**

NFC One-touch functionality

What's In The Box

* Rechargeable Battery NP-FW50
* Cable Protector
* AC Adaptor AC-UUD11
* Battery Charger BC-VW1
* Shoulder strap
* Body cap
* Accessory shoe cap
* Eyepiece cup

 Micro USB cable