SONY

PXW-FS7

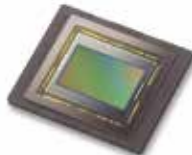## "One-Man Operation" & High Mobility Professional Camera

Equipped with high-sensitivity 4K Super35 "Exmor" CMOS Sensor

The FS7 is equipped with a Super 35mm CMOS image sensor with approximately 11.6 million total pixels and 8.8 million effective pixels. The high image readout speed of the image sensor allows the FS7 to support 4K motion-picture shooting and Super Slow Motion. The sensor also realizes a high sensitivity of ISO2000 and a wide dynamic range of 14 stops.

Exmor
CMOS Sensor

Internal recording in 4K*¹ resolution at 60fps*²

The FS7 supports internal recording at 4K resolution as well as a wide range of frame rates (59.94p, 50p, 29.97p, 25p and 23.98p).

*1 Support for QFHD 3840 x 2160 resolution will be available by the date of launch.
4096 x 2160 resolution support will be provided with a scheduled firmware update in early 2015.
*2 59.94fps

Super Slow Motion continuous shooting – Full HD recording up to 180fps

The FS7 offers Continuous Recording at Full HD image quality and a frame rate of up to 180fps. This makes it possible to attain up to 7.5x Super Slow Motion when played back at 23.98fps.

Adopts α mount system that is suitable for movie shooting

The E-mount system's short flange-back distance enables use of A-mount lenses via LA-EA4 lens adapter, as well as various other lenses via third-party adapters.

Support for S-Gamut3.Cine/S-Log3 and S-Gamut3/S-Log3

Due to the fact that 18% gray is set as a bright level, S-Log3 is noted for delivering a wider dynamic range than the 1300% achieved by S-Log2 incorporated in cameras such as the NEX-FS700

For extended flexibility – Extension Unit (XDCA-FS7)

Apple ProRes 422 encoding
It enables Apple ProRes 422 format recording to an XQD card in the camera

ProRes

Multi camera setting
Precise timecode synchronization provided by Genlock and Timecode In/Out functions

4K/2K RAW Recording w/ HXR-IFR5+AXS-R5
The FS7's FS RAW Interface can be connected to compatible third-party external Recorder as well.

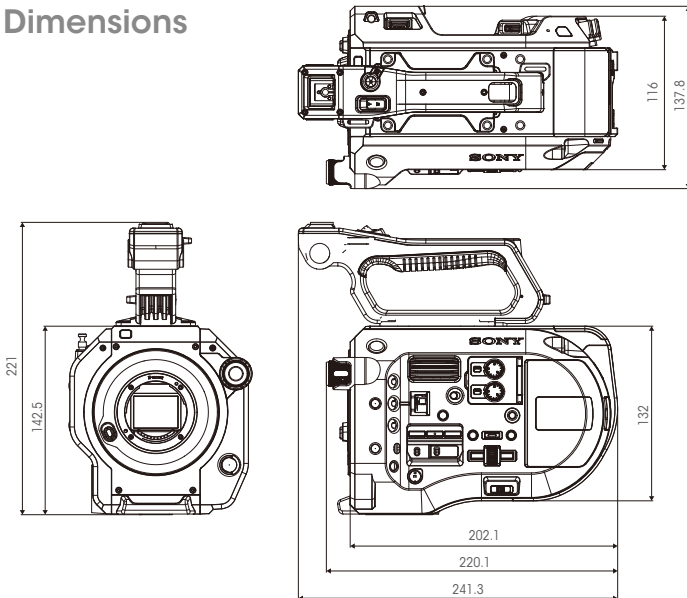XDCA-FS7

XDCAM   XAVC   MPEG HD422   Exmor CMOS Sensor   4K   XQD

Specifications

	PXW-FS7
General	
Mass	Approx 2.0 kg (body only)
	Approx. 4.5 kg (with Viewfinder,Eyepiece,Grip Remote Control, BP-U30 battery,SELP28135G LENS, an XQD memory card)
Dimensions (W x H x D)*	156 x 239 x 247 mm (body without protrusions)
Power Requirements	DC 12 V
Power Consumption	Approx. 19W (while recording XAVC-I QFHD 59.94P, SELP28135G Lens, Viewfinder ON, not using external device)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to +60°C (-4°F to +140°F)
Battery Operating Time	Approx. 1 hrs with BP-U30 battery
	(while recording XAVC-I QFHD 59.94P, SELP28135G Lens, Viewfinder ON, not using external device)
	Approx. 2 hrs with BP-U60 battery
	(while recording XAVC-I QFHD 59.94P, SELP28135G Lens, Viewfinder ON, not using external device)
	Approx. 3 hrs with BP-U90 battery
	(while recording XAVC-I QFHD 59.94P, SELP28135G Lens, Viewfinder ON, not using external device)
Recording Format (Video)	<XAVC Intra>
	XAVC-I mode:QFHD 59.94P, CBG, bit rate 600Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:QFHD 50P, CBG, bit rate 500Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:QFHD 29.97P, CBG, bit rate 300Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:QFHD 23.98P, CBG, bit rate 240Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:QFHD 25P, CBG, bit rate 250Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:HD 59.94P, VBR, maximum bit rate 222Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:HD 50P, VBR, maximum bit rate 185Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:HD 59.94i, VBR, maximum bit rate 111Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:HD 50i, VBR, maximum bit rate 112Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:HD 29.97P, VBR, maximum bit rate 111Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:HD 23.98P, VBR, maximum bit rate 89Mbps, MPEG-4 H.264/AVC
	XAVC-I mode:HD 25P, VBR, maximum bit rate 112Mbps, MPEG-4 H.264/AVC
	<XAVC Long>
	XAVC-L QFHD 59.94P/50P mode: VBR, maximum bit rate 150Mbps, MPEG-4 H.264/AVC
	XAVC-L QFHD 29.97P/23.98P/25P mode: VBR, maximum bit rate 100Mbps, MPEG-4 H.264/AVC
	XAVC-L HD 50 mode: VBR, maximum bit rate 50Mbps, MPEG-4 H.264/AVC
	XAVC-L HD 35 mode: VBR, maximum bit rate 35Mbps, MPEG-4 H.264/AVC
	XAVC-L HD 25 mode: VBR, maximum bit rate 25Mbps, MPEG-4 H.264/AVC
	<MPEG-2 Long GOP>
	MPEG HD422 mode: CBR, maximum bit rate 50Mbps, MPEG-2 422P@HL
Recording Format (Audio)	LPCM 24 bits, 48 kHz, 4 channels (Recording/Playback ONLY 2channels)
Recording Frame Rate	<XAVC Intra>
	XAVC-I QFHD mode: 3840x2160/ 59.94P, 50P, 29.97P, 23.98P, 25P
	XAVC-I HD mode: 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P
	<XAVC Long>
	XAVC-I QFHD mode: 3840x2160/59.94P, 50P, 29.97P, 23.98P, 25P
	XAVC-L 50 mode: 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P
	XAVC-L 35 mode: 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P
	XAVC-L 25 mode: 1920x1080/59.94i, 50i
	<MPEG-2 Long GOP>
	MPEG HD422 mode: 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P
	1280x720/59.94P, 50P, 29.97P, 23.98P, 25P
Recording/Playback Time	<XAVC Intra>
	XAVC-I mode QFHD 59.94P
	When using QD-G128A (128GB): Approx. 22 minutes, When using QD-G64A (64GB): Approx. 11 minutes
	XAVC-I mode QFHD 50P
	When using QD-G128A (128GB): Approx. 26 minutes, When using QD-G64A (64GB): Approx. 13 minutes
	XAVC-I mode QFHD 29.97P
	When using QD-G128A (128GB): Approx. 44 minutes, When using QD-G64A (64GB): Approx. 22 minutes
	XAVC-I mode QFHD 23.98P
	When using QD-G128A (128GB): Approx. 55 minutes, When using QD-G64A (64GB): Approx. 27 minutes
	XAVC-I mode QFHD 25P
	When using QD-G128A (128GB): Approx. 52 minutes, When using QD-G64A (64GB): Approx. 26 minutes
	XAVC-I mode HD 59.94P
	When using QD-G128A (128GB): Approx. 59 minutes, When using QD-G64A (64GB): Approx. 30 minutes
	XAVC-I mode HD 50P
	When using QD-G128A (128GB): Approx. 71 minutes, When using QD-G64A (64GB): Approx. 35 minutes
	XAVC-I mode HD 59.94i
	When using QD-G128A (128GB): Approx. 118 minutes, When using QD-G64A (64GB): Approx. 59 minutes
	XAVC-I mode HD 50i
	When using QD-G128A (128GB): Approx. 141 minutes, When using QD-G64A (64GB): Approx. 70 minutes
	XAVC-I mode HD 29.97P
	When using QD-G128A (128GB): Approx. 118 minutes, When using QD-G64A (64GB): Approx. 59 minutes
	XAVC-I mode HD 23.98P
	When using QD-G128A (128GB): Approx. 147 minutes, When using QD-G64A (64GB): Approx. 74 minutes
	XAVC-I mode HD 25P
	When using QD-G128A (128GB): Approx. 141 minutes, When using QD-G64A (64GB): Approx. 70 minutes
	<XAVC Long>
	XAVC-L mode QFHD 59.94P/50P
	When using QD-G128A (128GB): Approx. 87 minutes, When using QD-G64A (64GB): Approx. 44 minutes
	XAVC-L mode QFHD 29.97P/23.98P/25P mode:
	When using QD-G128A (128GB): Approx. 131 minutes, When using QD-G64A(64GB): Approx. 66 minutes
	XAVC-L 50 mode
	When using QD-G128A (128GB): Approx. 262 minutes, When using QD-G64A (64GB): Approx. 131 minutes
	XAVC-L 35 mode
	When using QD-G128A (128GB): Approx. 374 minutes, When using QD-G64A (64GB): Approx. 187 minutes
	XAVC-L 25 mode
	When using QD-G128A (128GB): Approx. 524 minutes, When using QD-G64A (64GB): Approx. 262 minutes
	<MPEG-2 Long GOP>
	MPEG HD422 mode
	When using QD-G128A (128GB): Approx. 262 minutes, When using QD-G64A (64GB): Approx. 131 minutes

	PXW-FS7
Lens	
Lens Mount	E-mount
Camera Section	
Imaging Device (Type)	Super35 type Single-chip Exmor CMOS
Effective Picture Elements	17:9 4096 (H) x 2160 (V)
	16:9 3840 (H) x 2160 (V)
Built-in Optical Filters	OFF: Clear, 1/4ND, 1/16ND, 1/64ND
Sensitivity (2000 lx, 89.9% reflectance)	Video Gamma:T14 (3840 x 2160/23.98P mode 3200K)
ISO Sensitivity	ISO 2000 (S-Log3 Gamma D55 Light source)
Minimum Illumination	0.7 lx (+18dB, 23.98P, Shutter OFF, ND Clear, F1.4)
S/N Ratio	57 dB (Y) (typical)
Shutter Speed	1/3 sec to 1/9,000 sec
Slow & Quick Motion Function	XAVC-I mode 3840x2160: 1 to 60 frames (59.94P, 50P, 29.97P, 23.98P, 25P)
	XAVC-I mode 1920x1080: 1 to 180 frames (59.94P, 29.97P, 23.98P), 1 to 150 frames (50P, 25P)
	XAVC-L mode 3840x2160: 1 to 60 frames (59.94P, 50P, 29.97P, 23.98P, 25P)
	XAVC-L mode 1920x1080: 1 to 120 frames (59.94P, 50P, 29.97P, 23.98P, 25P)
White Balance	Preset, Memory A, Memory B (1500K-50000K)/ATW
Gain	-3, 0, 3, 6, 9, 12, 18 dB, AGC
Gamma Curve	STD, HG, User, S-Log3
Input/Output	
Audio Input	XLR-type 3-pin (female) (x2), line/mic/mic +48 V selectable, Mic Reference: -40, -50, -60dBu
SDI Output	BNC (x2), switchable with 3G-SDI/HD-SDI
	SMTPE292M/424M/425M
USB	USB device, mini-B (x1)
Headphone Output	Stereo mini jack (x1), -16dBu 16Ω
Speaker Output	Monaural
DC Input	DC jack
Remote	Stereo mini-minijack (ø2.5 mm)
HDMI Output	Type A (x1)
Option	4-pin, Type A for W-LAN (x1)
Monitoring	
Built-in LCD Monitor	8.8 cm (3.5 type), Approx. 1.56M dots
Built-in Microphone	
	Omni-directional monoral electret condenser microphone.
Media	
Type	XQD Card slot (x2)
	SD Card slot (x1) for saving configuration data
Supplied Accessoies	
	Boyd Cap (1)
	Viewfinder (1)
	Eyepiece (1)
	Grip Remote Control (1)
	USB wireless LAN module IFU-WLM3 (1)
	Wireless remote commander (1) (RMT-845)
	WA Adaptor Bracket (1)
	MPA-AC1 AC Adapter (1)
	BC-U1 battery charger (1)
	BP-U30 battery pack (1)
	Power cord (2)
	USB cable (1)
	Operating Guide (2)
	CD-ROM "Manuales for Solid-State Memory Camcorder" (1)

* The values for dimensions are approximate.

Dimensions

116.6

137.8

221

142.5

132

202.1

220.1

241.3

Unit: mm (inches)

Accessories

BP-U30/BP-U60/ BP-U60T/BP-U90
Rechargeable Battery pack

BC-U1/BC-U2
Battery Charger/ AC Adaptor

HVL-LBPC
Battery Video Light

UWP-D11/UWP-D12
Wireless Microphone Package

SMAD-P3
MI Shoe Mount Adaptor
* required for cable-free operation with UWP-D11/UWP-D12

ECM-VG1
Electret Condenser Microphone

ECM-MS2
Electret Condenser Microphone

QD-G128A/QD-G64A/ QD-G32A
XQD Memory Card

CBK-WA100
Wireless Adaptor

Not Available

VCT-FS7
Light Weight Rod Support

Lenses

E-mount		A-mount			Adaptor
SELP28135G	**SEL70200G**	**SAL100M28**	**SAL135F28STF**	**SAL1635Z**	**LA-EA4**