

# Sony FS7



Image Device	Super 35mm Single-Chip Exmor CMOS
Effective Picture Elements	17:9 4096 (H) x 2160 (V) 16:9 3840 (H) x 2160 (V)
Signal-to-Noise Ratio	57 dB (Y)
Sensitivity	<b>2000 lx, 89.9% reflectance</b> T14 (3840 x 2160/23.98p mode 3200K)  <b>ISO Sensitivity</b> ISO 2000 (S-Log3 Gamma D55 Light source)
Minimum Illumination	0.7 lux: +18dB,23.98P,Shutter OFF,ND Clear, F1.4
Signal System	NTSC / PAL
Built-in Filters	Clear, 1/4, 1/16, 1/64
LCD Monitor	3.5" / 8.8 cm Approx: 1.56M dots
Speaker	Monaural
Shutter Speed	1/3 to 1/9000 of a sec
White Balance	Preset Memory A Memory B (1500K-50000K)/ATW
Gain Selection	-3, 0, 3, 6, 9, 12, 18 dB, AGC

Gamma Curve

STD  
HG  
User  
S-log3

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Shooting Formats

**4K 4096 x 2160**  
12-bit RAW

**UHD 3840 x 2160**  
10-bit 4:2:2 XAVC-I  
8-bit 4:2:0 XAVC-L

**2K 2048 x 1080**  
12-bit Raw

**HD 1920 x 1080**  
10-bit 4:2:2 XAVC-I  
10-bit 4:2:2 XAVC-L  
MPEG2 4:2:2

**HD 1280 x 720**  
MPEG2 4:2:2

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Audio Recording Format

LPCM 24 bits, 48 kHz, 4 channels  
(Recording/Playback 2 channels)

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Recording Formats

**XAVC-I QFHD** MPEG-4 H.264/AVC  
59.94P CBG, bit rate 600 Mb/s  
50P CBG, bit rate 500 Mb/s  
29.97P CBG, bit rate 300 Mb/s  
23.98P CBG, bit rate 240 Mb/s  
25P CBG, bit rate 250 Mb/s

**XAVC-I HD** MPEG-4 H.264/AVC  
59.94P VBR, maximum bit rate 222 Mb/s  
50P VBR, maximum bit rate 185 Mb/s  
59.94i VBR, maximum bit rate 111 Mb/s  
50i VBR, maximum bit rate 112 Mb/s  
29.97p VBR, maximum bit rate 111 Mb/s  
23.98p VBR, maximum bit rate 89 Mb/s  
25p VBR, maximum bit rate 112 Mb/s

**XAVC-L QFHD** MPEG-4 H.264/AVC  
59.94p/50p mode: VBR, maximum bit rate 150 Mb/s  
29.97p/23.98p/25p mode: VBR, maximum bit rate 100 Mb/s

**XAVC-L HD 50** MPEG-4 H.264/AVC  
VBR, maximum bit rate 50 Mb/s

**XAVC-L HD 35** MPEG-4 H.264/AVC  
VBR, maximum bit rate 35 Mb/s

**XAVC-L HD 25** MPEG-4 H.264/AVC  
VBR, maximum bit rate 25 Mb/s

**MPEG-2 Long GOP**

CBR, maximum bit rate 50 Mbps, MPEG-2  
422P@HL

**XAVC-I QFHD** 3840 x 2160/ 59.94p, 50p, 29.97p,  
23.98p, 25p

**XAVC-I HD**

1920 x 1080/59.94p, 50p, 59.94i, 50i, 29.97p,  
23.98p, 25p

**XAVC-L QFHD 50**

3840 x 2160/59.94p, 50p, 29.97p, 23.98p, 25p

**XAVC-L 35**

1920 x 1080/59.94p, 50p, 59.94i, 50i, 29.97p,  
23.98p, 25p

**MPEG-2 Long GOP**

1920 x 1080/59.94i, 50i, 29.97p, 23.98p, 25p 1280  
x 720/59.94p, 50p, 29.97p, 23.98p, 25p

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Recording Frame Rate

**XAVC-I QFHD**

3840 x 2160/ 59.94p, 50p, 29.97p, 23.98p, 25p

**XAVC-I HD**

1920 x 1080/59.94p, 50p, 59.94i, 50i, 29.97p,  
23.98p, 25p

**XAVC-L QFHD**

3840 x 2160/59.94p, 50p, 29.97p, 23.98p, 25p

**XAVC-L HD 50**

1920 x 1080/59.94p, 50p, 59.94i, 50i, 29.97p,  
23.98p, 25p

**XAVC-L 35**

1920 x 1080/59.94p, 50p, 59.94i, 50i, 29.97p,  
23.98p, 25p

**XAVC-L 25**  
1920 x 1080/59.94i, 50i

**MPEG-2 Long GOP MPEG HD422**  
1920 x 1080/59.94i, 50i, 29.97p, 23.98p, 25p  
1280 x 720/59.94p, 50p, 29.97p, 23.98p, 25p

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Slow & Quick Motion Function

XAVC-I mode 3840 x 2160: 1 to 60 frames  
(59.94p, 50p, 29.97p, 23.98p, 25p)  
XAVC-I mode 1920 x 1080: 1 to 180 frames  
(59.94p, 29.97p, 23.98p)  
XAVC-I mode 1920 x 1080: 1 to 150 frames (50p,  
25p)  
XAVC-L mode 3840 x 2160: 1 to 60 frames  
(59.94p, 50p, 29.97p, 23.98p, 25p)  
XAVC-L mode 1920 x 1080: 1 to 120 frames  
(59.94p, 50p, 29.97p, 23.98p, 25p)

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Maximum Recording Time

**XAVC-I mode QFHD 59.94p**  
When using QD-G128A (128 GB): Approx. 22  
minutes  
When using QD-G64A (64 GB) Approx. 11  
minutes

**XAVC-I mode QFHD 50p**  
When using QD-G128A (128 GB): Approx. 26  
minutes  
When using QD-G64A (64 GB) Approx. 13  
minutes

**XAVC-I mode QFHD 29.97p**  
When using QD-G128A (128 GB): Approx. 44  
minutes  
When using QD-G64A (64 GB) Approx. 22  
minutes

**XAVC-I mode QFHD 23.98p**  
When using QD-G128A (128 GB): Approx. 55  
minutes  
When using QD-G64A (64 GB) Approx. 27  
minutes

**XAVC-I mode QFHD 25p**  
When using QD-G128A (128 GB): Approx. 52  
minutes  
When using QD-G64A (64 GB) Approx. 26  
minutes

**XAVC-I mode HD 59.94p**  
When using QD-G128A (128 GB): Approx. 59  
minutes  
When using QD-G64A (64 GB) Approx. 30  
minutes

**XAVC-I mode HD 50p**

When using QD-G128A (128 GB): Approx. 71 minutes

When using QD-G64A (64 GB) Approx. 35 minutes

**XAVC-I mode HD 59.94i**

When using QD-G128A (128 GB): Approx. 118 minutes

When using QD-G64A (64 GB) Approx. 59 minutes

**XAVC-I mode HD 50i**

When using QD-G128A (128 GB): Approx. 141 minutes

When using QD-G64A (64 GB) Approx. 70 minutes

**XAVC-I mode HD 29.97p**

When using QD-G128A (128 GB): Approx. 118 minutes

When using QD-G64A (64 GB) Approx. 59 minutes

**XAVC-I mode HD 23.98pM/b>**

When using QD-G128A (128 GB): Approx. 147 minutes

When using QD-G64A (64 GB) Approx. 74 minutes

**XAVC-I mode HD 25p**

When using QD-G128A (128 GB): Approx. 141 minutes

When using QD-G64A (64 GB) Approx. 70 minutes

**XAVC-L mode QFHD 59.94p/50p**

When using QD-G128A (128 GB): Approx. 87 minutes

When using QD-G64A (64 GB) Approx. 44 minutes

**XAVC-L mode QFHD 29.97p/23.98p/25p**

When using QD-G128A (128 GB): Approx. 131 minutes

When using QD-G64A (64 GB) Approx. 66 minutes

**XAVC-L 50 mode**

When using QD-G128A (128 GB): Approx. 262 minutes

When using QD-G64A (64 GB) Approx. 131 minutes

**XAVC-L 50 mode**

When using QD-G128A (128 GB): Approx. 262 minutes

When using QD-G64A (64 GB) Approx. 131 minutes

**XAVC-L 35 mode**

When using QD-G128A (128 GB): Approx. 374 minutes

When using QD-G64A (64 GB) Approx. 187 minutes

**XAVC-L 25 mode**

When using QD-G128A (128 GB): Approx. 524 minutes

When using QD-G64A (64 GB) Approx. 262 minutes

**MPEG HD422 mode**

When using QD-G128A (128 GB): Approx. 262 minutes

When using QD-G64A (64 GB) Approx. 131 minutes

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**Media Card Slots**

2 x XQD  
1 x SD (for configuration data only)

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**Input and Output Connectors****Audio Input**

2 x 3-pin XLR

Line/mic/mic +48

Mic Reference: -40. -50. -60 dBu

**SDI Output**

2 x BNC HD/3G-SDI

SMTPE292M/424M/425M

**HDMI 2.0**

1 x Type A

**USB**

USB device, miniB

**Headphone**

1 x Stereo mini jack

-16 dBu 16 Ω

**Remote**

Stereo mini jack (Φ2.5 mm)

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Accessory Shoe

Multi-Interface (MI) shoe

Power Requirement	12 VDC
Power Consumption	Approx. 19 W (while recording XAVC-I QFHD 59.94p, SELP28135G Lens, Viewfinder ON, not using external device)
Battery Operating Time	BP-U30: Approx. 1 hr while recording XAVC-I QFHD 59.94p, SELP28135G Lens, Viewfinder ON, not using external device BP-U60: Approx. 2 hr while recording XAVC-I QFHD 59.94p, SELP28135G Lens, Viewfinder ON, not using external device BP-U90: Approx. 3 hr while recording XAVC-I QFHD 59.94p, SELP28135G Lens, Viewfinder ON, not using external device
Temperature	Operating: 32 to 104°F / 0 to 40°C Storage: -4 to 140°F / -4 to 140°C