

# PMW-F55LIVE

Super 35mm 4K CMOS sensor compact CineAlta camera records HD/2K/4K on SxS memory plus 16-bit RAW 2K/4K output



## Overview

### **Sony 4K sensor for gorgeous, super-sampled HD, 2K and 4K**

The PMW-F55 Live System combines the PMW-F55 4K Super 35mm single sensor camera together with the CA-4000 4K fibre transmission camera system adaptor and BPU-4000 baseband processor unit. It is ideal for any live production application, such as sports, concerts and events, or studio productions.

The PMW-F55 Live System provides cameramen with the same variety of components as any Sony HD system camera, including a wide choice of viewfinders with a unique Focus Assist function specially designed for 4K live operations, video returns, tally, intercom and zoom and focus controls. Video technicians ("aders") operate in the control room with traditional RCP/MSU control panels and keep all the standard operations as with any Sony HD studio camera. All parameters are remotely available to render the best picture in any environment.

With the variety of outputs on the BPU-4000 you can have a simultaneous 4K and HD live operation, matching Sony HDC Series cameras perfectly. The PMW-F55 Live System also offers the capability to create HD cut outs from the 4K resolution images (with the SZC-2001 licence option for the BPU-4000) or operate as a 4x or 6x speed HD slow-motion camera (with the SZC-2002 licence option for the BPU-4000).

## Features

### **PMW-F55 Live System**

The PMW-F55 Live System allows you to shoot in 4K and HD in the same way as any other studio camera. The CA-4000 optical fibre backend transmits the 4K RAW signal from the PMW-F55 to the BPU-4000, which processes the RAW signal in real time.

### **Simultaneous 4K and HD output**

The BPU-4000 can output 4K, or QFHD, at the same time as HD. The RAW signal is processed in real time, enabling full creativity with the 7x standard Gamma, 4x HyperGamma or S-Log2 Gamma curves.

### **HD cut-outs from 4K**

The BPU-4000 allows you to create up to 2x HD virtual camera outputs in parallel to the 4K Live signal. This enables you to create several views from a single camera, making HD live production more efficient. This feature requires the SZC-2001 license option for the BPU-4000.

### **HD 4x and 6x slow-motion**

With the SZC-2002 license option for the BPU-4000, the PMW-F55 Live System allows you to capture HD slow-motion at 4x (max 240i or 240P) and also 6x Speed (max 360i

or 360P).

**Versatility of applications and accessories**

The PMW-F55 Live System is suitable for many types of applications thanks to its flexibility. It also supports a wide range of accessories fully compatible with Sony HD system cameras, such as viewfinders, remote control panels and Camera Control Units. You can also adapt any 2/3'-inch lens to the PMW-F55 thanks to the LA-FZB2 lens mount adaptor.

**Vast exposure latitude to 14 f-stops**

Being able to render tones from the deeper shadows to the brightest highlights is essential for live productions where lightning conditions can vary drastically. The PMW-F55 excels, with an impressive 14 stops of exposure latitude, extraordinary low-light sensitivity and extremely low noise in the blacks.

**Revolutionary electronic global shutter**

The traditional CMOS image sensor uses a 'rolling' shutter that can result in images with unwanted distortions like motion skew and flash banding, especially when shooting sports or any fast moving object. The PMW-F55 incorporates electronic global shutter, which completely eliminates rolling shutter distortions.

Specifications

| General                   |  |
|---------------------------|--|
| Power Requirements        | DC 12 V (11 V to 17 V)   |
| Power Consumption         | Approx. 25 W (while recording XAVC 4K 60p, EVF Off, LCD monitor Off, 4K SDI On)  |
| Operating Temperature     | 0°C to 40°C<br>32°F to 104°F   |
| Storage Temperature       | -20°C to +60°C<br>-4°F to +140°F   |
| Mass                      | 2.2 kg (without lens, handle, audio box and accessories)<br>4 lb 14 oz (without lens, handle, audio box and accessories)   |
| Dimensions (W x H x D) *1 | 130 x 125 x 191 mm (without protrusions)<br>5 1/8 x 5 x 7 5/8 inches (without protrusions)   |
| Battery Operating Time    | Approx. 150 min with BP-FL75<br>Approx. 210 min with BP-GL95A  |
| Recording Format (Video)  | XAVC (AVC/H.264 High 4:2:2 Intra Profile)<br>4K: VBR, 600 Mbps max.<br>HD: SMPTE RP2027 Class100 compliant<br>MPEG2 HD (MPEG-2 Long GOP)<br>HD 422 mode: CBR, 50 Mbps max., MPEG-2 422P@HL<br>*2 |
| Recording Format (Audio)  | LPCM 8CH (2CH recording/playback), 24-bit, 48-kHz  |
|                           | XAVC 4K (4096 x 2160):<br>23.98p/24p/25p/29.97p/50p/59.94p   |

|                         |   |
|-------------------------|---|
| Recording Frame Rate    | XAVC QFHD (3840 x 2160):<br>23.98p/25p/29.97p/50p/59.94p<br>XAVC 2K (2048 x 1080):<br>23.98p/24p/25p/29.97p/50p/59.94p<br>XAVC HD (1920x1080):<br>23.98p/25p/29.97p/50p/59.94p<br>MPEG4 SStP (1920 x 1080):<br>23.98p/24p/25p/29.97p<br>MPEG2 HD (1920x1080):<br>23.98p/25p/29.97p/50i/59.94i<br>MPEG2 HD (1280 x 720):<br>50p/59.94p<br>*3 |
| Recording/Playback Time | XAVC 4K, 23.98p: Approx. 25 min (SBP-64B)/Approx. 50 min (SBP-128B)<br>59.94p: Approx. 10 min (SBP-64B)/Approx. 20 min (SBP-128B)<br>XAVC HD, 23.98p: Approx. 70 min (SBP-64B)/Approx. 140 min (SBP-128B)<br>59.94p: Approx. 30 min (SBP-64B)/Approx. 60 min (SBP-128B)<br>MPEG2 HD: Approx. 60 min (SBS-32G1A)/Approx. 120 min (SBS-64G1A) |

### Camera Section

|  |  |
|--|--|
| Imaging Device (Type)                    | Super 35mm equivalent Single-chip CMOS   |
| Imaging Device (Pixel Count)             | 11.6M (total), 8.9M (effective)  |
| Aspect Ratio                             | 17:9   |
| Built-in Filters                         | Clear, 0.9 (1/8ND), 1.8 (1/64ND)   |
| Sensitivity (2000 lx, 89.9% reflectance) | Video Gamma: T12@24p (3200K light source)  |
| ISO Sensitivity                          | S-Log2 Gamma: ISO 1250 (D55 light source)  |
| Lens Mount                               | PL mount (with supplied lens mount adapter)<br>FZ mount (without supplied lens mount adapter)  |
| Latitude                                 | 14-stop  |
| S/N Ratio                                | 57dB (Video Gamma, 24p, Noise Suppression OFF)   |
| Shutter Speed                            | 1/24s to 1/6,000s (23.98PsF)   |
| Shutter Angle                            | 4.2°to 360°(electrical shutter)  |
| Slow Shutter (SLS)                       | 2, 3, 4, 5, 6, 7, 8-frame accumulation   |
| Slow & Quick Motion Function             | XAVC 4K/QFHD: 1-60p (NTSC), 23.98p/29.97p<br>XAVC 4K/QFHD: 1-50p (PAL), 25p<br>XAVC 2K/HD: 1-180p (NTSC), 23.98p/29.97p<br>XAVC 2K/HD: 1-150p (PAL), 25p |

|               |   |
|---------------|---|
| White Balance | Preset (3200K, 4300K, 5500K), Memory                          |
| Gain          | -3, 0, 3, 6, 9, 12, 18 dB, AGC                                |
| Gamma Curve   | Standard (x6)<br>HG1, HG2, HG3, HG4, HG7, HG8<br>S-Log2 Gamma |

## Input/Output

|                       |   |
|-----------------------|---|
| Audio Input           | CH-1/CH-2: XLR-type 3-pin (female) (x2),<br>Line/Mic/Mic +48V (AES/EBU) *4 switchable   |
| DC Input              | XLR-type 4-pin (male) (x1), 11 V to 17 V DC   |
| DC Output             | 4-pin (x2), 11 V to 17 V DC (max. 1.8 A) with<br>battery adapter  |
| Viewfinder            | Digital viewfinder interface (x1)   |
| SDI Output            | BNC (x4), HD mode: SDI 1/2 Line Output, SDI<br>3/4 Monitor Output<br>4K mode: SDI 1/2/3/4 Line Output, Display<br>On/Off switchable |
| Test Output           | BNC (x1), HD-Y or HD Sync (tri-level) V1.0  |
| Timecode Input/Output | TC IN/OUT (x1) switchable   |
| Genlock Input         | BNC (x1)  |
| Remote                | 8-pin (x1)  |
| HDMI Output           | A Type (x1)   |
| USB                   | USB host, type-A (x1)   |
| USB                   | USB device, Mini-B (x1)   |
| Headphone Output      | Stereo mini jack (x1)   |
| Speaker Output        | Monaural  |
| Shutter               | BNC (x1) *4   |
| Wi-Fi                 | USB host, type-A (x1)   |

## Media

|      |   |
|------|---|
| Type | ExpressCard/34 slot (x2)<br>SD card slot (x1) |
|------|---|

## Supplied Accessories

|                      |   |
|----------------------|---|
| Supplied Accessories | Lens mount adapter (1)<br>Battery adapter (1)<br>Audio input connector (1)<br>Screws for the audio input connector (4)<br>Tape measure hook (1) |
|----------------------|---|

USB wireless LAN module IFU-WLM3 (1) \*4  
 Before Using this Unit (1)  
 Operating Instructions (CD-ROM) (1)

Notes

Note

- \*1 The values for dimensions are approximate.
- \*2 These are the supported formats at launch and will be added by future upgrades.
- \*3 Some frame rates are not supported at launch and will be supported by future upgrades.
- \*4 To be supported by future upgrades.

Related products



**PWS-4400**  
 4K / HD multi-port AV storage unit



**ODS-D77UA**  
 ODS-D77UA has very high transfer speeds. Read is 1.1Gbps. Write-once is 440 Mbps and Rewritable is 160 Mbps (verify on). Performance varies based on type of cartridge.



**CA-4000**  
 4K fibre transmission camera adaptor



**PWA-RCT 1**  
 Recording Control Software for PWS-4500, HKCU-REC55 and HKCU-REC50



**MVS-8000X**  
 4K, HD, 3G, SD Multi-Format Production Switcher Processor



**BPU-4500A**  
 4K/HD baseband processor unit for IP network production



**PVM-X300**  
 30-inch 4K TRIMASTER™ LCD professional monitor

## Gallery

