

## F65 Live System

F65 4K and HD Live Production  
Kit



### Overview

**F65 top-end Motion Picture 4K camera with 8K sensor combines with the SKC-4065, CA-4000 and BPU-4000 as a live production system camera suitable for 4K and HD productions**

The F65 Live System combines the F65 top-end 8K Super 35mm single sensor Motion Picture camera together with the SKC-4065 4K live camera adaptor, CA-4000 4K fibre transmission camera system adaptor and BPU-4000 baseband processor unit. The F65 Live System provides camera operators 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 (“shaders”) 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 F65 Live System also offers the capability to create very high quality HD cut outs from the 8K resolution images (with the SZC-2001 licence option for the BPU-4000) or operate as a 2x speed 4K slow-motion camera (with the SZC-2002 licence option for the BPU-4000).

## **F65 top-end Motion Picture 4K camera with 8K sensor**

Hailed for its 8K sensor resolution, wide colour space, high sensitivity and ultra low noise, the Sony F65 is the reference for top end digital Motion Picture cameras. Using the CA-4000 camera adaptor thanks to the SKC-4065 and BPU-4000 baseband processor, the F65 connects to Sony's principal HD camera control units, remote control panels and master set-up units.

## **SKC-4065 4K live camera adaptor**

As the RAW interface of the F65 is different from the PMW-F55, the SKC-4065 enables the CA-4000 to fit onto the camera body. It also interfaces the main commands with the camera itself, including multi-format, shutter, ND filter and gain.

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

This effectively converts the F65 to a live system camera, with a SMPTE fibre interface and a full set of connections for audio, tally, prompter and more. The SKC-PB40 power booster option for the CA-4000 is mandatory to use with the F65.

## **BPU-4000 baseband processor unit**

This vital link “debayers” the RAW signal from the F65 into 4K baseband video and also down-converts 4K to HD, performs HD cut-outs (with the SZC-2001 license option) and enables 2x speed 4K slow-motion (with the SZC-2002 license option). For traditional multi-camera shading and control, the BPU-4000 can connect to Sony HDCU-2000/2500 Camera Control Units, RCP-1000 series remote control panels and MSU-1000/1500 master setup units.

## Features

### **F65 Live System**

The F65 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. To attach the CA-4000 to the F65 requires the SKC-4065 4K live camera adaptor.

### **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.

### **4K and HD 2x slow-motion**

With the SZC-2002 license option for the BPU-4000, the F65 Live System allows you to capture 4K slow-motion at 2x speed (100p). A HD slow-motion 2x speed output is also available from the HDCU-2000 series (100i).

### **Versatility of applications and accessories**

The F65 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.

### **Super 35mm CMOS sensor with 20 Megapixels**

The F65 features superb image quality in HD/2K and True 4K. The F65 has a 14-stop latitude, high sensitivity and ultra-low noise. It offers filmic colour reproduction with an unrivalled colour gamut.

### **Rotary shutter**

The optional mechanical rotary shutter eliminates the rolling-

shutter effect common to CMOS sensors.

### **Built-in ND filters**

Four Neutral Density (ND) filters are supplied with the rotary shutter option.

## Specifications

### General

|                    |                   |
|--------------------|-------------------|
| Power Requirements | DC 10.5 V to 17 V |
|--------------------|-------------------|

|                   |                                                                                                  |
|-------------------|--------------------------------------------------------------------------------------------------|
| Power Consumption | Approx. 65 W (Mechanical rotary shutter operating.) (without lens, viewfinder, at 23.98PsF mode) |
|-------------------|--------------------------------------------------------------------------------------------------|

|                       |             |
|-----------------------|-------------|
| Operating Temperature | 0°C to 40°C |
|-----------------------|-------------|

|  |               |
|--|---------------|
|  | 32°F to 104°F |
|--|---------------|

|                     |                |
|---------------------|----------------|
| Storage Temperature | -20°C to +60°C |
|---------------------|----------------|

|  |                |
|--|----------------|
|  | -4°F to +140°F |
|--|----------------|

|      |                                  |
|------|----------------------------------|
| Mass | 5.0 kg (6.5 kg with accessories) |
|------|----------------------------------|

|  |                                     |
|--|-------------------------------------|
|  | 11 lb (14 lb 5 oz with accessories) |
|--|-------------------------------------|

### Camera Section

|               |                              |
|---------------|------------------------------|
| Pickup Device | 1-chip Super 35 mm type CMOS |
|---------------|------------------------------|

|              |      |
|--------------|------|
| Aspect Ratio | 17:9 |
|--------------|------|

|                     |                                                                            |
|---------------------|----------------------------------------------------------------------------|
| Built-in Filters    | Clear, ND0.9 (1/8ND), ND1.2 (1/16ND), ND1.5 (1/32ND), ND1.8 (1/64ND)       |
| Lens Mount          | ø54 mm PL mount                                                            |
| Flange Focal Length | 52.00 mm (+/-0.04 mm adjustable in 0.01 mm increments by shim replacement) |
| Latitude            | 14-stop                                                                    |
| Registration        | Within 0.02% (all zones, without lens)                                     |
| Distortion          | Below measurable level (without lens)                                      |
| <b>Input/Output</b> |                                                                            |
| DC Input            | Lemo 8-pin (male) (x1), DC 10.5 V to 17 V, DC 20 V to 30 V                 |
| DC Output           | DC 12 V: 11-pin (x1), max. 4 A                                             |
|                     | DC 24 V: 3-pin (x1), max. 4 A                                              |
| Viewfinder          | 20-pin (x1)                                                                |
| Lens                | 12-pin (x1)                                                                |
| SDI Output          | BNC (x2), HD-SDI (4:2:2)                                                   |

|                                    |                                                                                                                                                 |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| HD-Y Output                        | BNC (x1), 75 Ω, 1.0 Vp-p                                                                                                                        |
| Genlock Input                      | BNC (x1), 75 Ω, HD 3-level sync, 0.6 Vp-p                                                                                                       |
| Remote                             | 8-pin (x1)                                                                                                                                      |
| External Input/Output              | Lemo 5-pin (female) (x1)                                                                                                                        |
| Ethernet                           | RJ-45 type (x1), 10BASE-T/100BASE-TX                                                                                                            |
| Lens Mount Hot Shoe                | 4-pin (x2), conforming to ARRI LDS (Lens Data System) and Cooke /I Intelligent Electronic Lens System)                                          |
| USB                                | Type A, USB2.0 Hi-Speed (x1)                                                                                                                    |
| "Memory Stick" (MS)/SD Memory Card | "Combo-connector (x1)<br>Supports ""Memory Stick Duo"", ""Memory Stick PRO Duo""<br>Supports SD memory cards, SDHC memory cards up to class 10" |

## Supplied Accessories

Belt bracket (1)  
 Cable clamp belt (1)  
 19mm dia carbon rod (1)  
 +B3 x 5 screws (4)  
 Center handle (1)

- Supplied Accessories
- Viewfinder mounting plate (1)
  - Riser plate (1)
  - Power cable connector (LEMO 8-pin) (1)
  - Operation manual (CD-ROM) (1)
  - Operation guide (1)

## Related products



### PVM-X300

30-inch 4K TRIMASTER™ LCD professional monitor



### ECM-88B

Electret condenser microphone



### DWR-S02D

Digital wireless receiver



### DWA-01D

Digital wireless receiver adaptor



### ECM-678

Shotgun Electret condenser microphone



### ECM-674

Affordable shotgun Electret condenser microphone



### ECM-673

Short Shotgun Electret Condenser Microphone.



### MDR-7510

Studio professional headphones



### MDR-7506

Stereo professional headphones



### Super Resolution De-Mosaicing Processor

Workflow Solution for beyond 4K Production with F65





## Gallery

