HXC-FB80

Three 2/3-inch Exmor™ CMOS sensor HD colour studio camera

Overview

HD Studio Camera System with 4K Upscale and HD HDR Capability

The HXC-FB80* is a cost-effective high-performance HD portable camera with three Sony 2/3-inch Exmor™ CMOS sensors and a 3G-SDI platform capable of 1080/50p and 59.94p signal processing while achieving low power consumption.
In combination with the HXCU-FB80** 4K/HD Camera Control Unit, it offers user-beneficial expandability including 4K upscale and HD HDR support (HLG, Hybrid Log-Gamma)*** for a future-proof solution. The optional PC-based HZC-RCP5 Remote Control Panel is available for a simpler application system.

Please note that the specifications shown on this page are for the HXC-FB0SN model.

*HXC-FB80N camera model equipped with Neutrik connector interface. (Works with HXCU-FB80N CCU model).
**HXC-FB80L camera model equipped with Lemo connector interface. (Works with HXCU-FB80L CCU model).
***Requires firmware upgrade available in 2018.

Model Variations:

HXC-FB80HN: Body only

HXC-FB80KN: Body + Lens Kit + Viewfinder + Microphone**
HXC-FB80SN: Body + Lens Kit + Large Viewfinder

HXC-FB80HL: Body only*
HXC-FB80KL: Body + Lens Kit + Viewfinder + Microphone* **
HXC-FB80SL: Body + Lens Kit + Large Viewfinder*

The N suffix indicates a Neutrik connector; the L suffix indicates a LEMO connector.

*Not available in the USA or Canada
**Not available in China

Features

Full HD Exmor CMOS sensors
Incorporating three 2/3-inch Exmor CMOS sensors, the HXC-FB80 offers stunning full-HD picture quality and sensitivity of F13 in 50 Hz and F12 in 59.94 Hz at 1080 mode with a signal-to-noise ratio of -60 dB. These features enhance shooting in a low light environment.

3G-SDI Platform Capable of 1080/50p and 59.94p
The camera head can comfortably output 3G-SDI signals including 1080/50p and 59.94p. The new processor can also support 1080/23.98 PsF on top of 25 PsF and 29.97 PsF.

Future-Proof 4K Upscalable and HD HDR Support with CCU
Combined with the HXCU-FB80 CCU, this camera's output is 4K upscalable and yet HD HDR-capable supporting HLG (Hybrid Log-Gamma).*

* Requires firmware upgrade available in 2018

PC-RCP (HZC-RCP5)
In addition to hardware-based remote control units, PC software-

based HZC-RCP5 Remote Control is also available.

MCS (Multi Camera System) capabilities
The HXCU-FB80 CCU provides support for up to 24 units, forming a complete MCS system.

Long Cable Extension and Choice of Fiber Interface
Using a hybrid cable with a power supply, the distance between the camera head and CCU can be extended up to 600 m. In case of the combination with HXC-P70, it can extend up to 1,000 m. In addition to the Neutrik connector interface, a LEMO connector interface is also available for the camera head and CCU. In the case of connection with a single-mode fibre cable (SMF), transmission can extend up to 10km using a local power supply.

Wide range of image control functions
The system camera is full of creative image control functions such as MultiMatrix, Skin Tone Detail, Low Key Saturation, Knee Saturation, and Auto Lens Aberration Compensation (ALAC).

ND Filter by Servo Motor
Along with an electrical CC filter, the ND filter can be remotely controlled either by external RCP/RM or via the CCU because of the newly adopted filter servo motor in the camera head.

HD Video Trunk and HD Prompter
In addition to the camera captured 1080 50i/59.94i video signal, another video signal can be passed through the same fiber connection line to the CCU side because of the 3G-SDI platform. Further to the traditional analog composite prompter support, the HD-SDI signal can be supplied from the CCU side.

Specifications

General

Power Consumption	Approx.19W (Camera body only) Approx. 32W (Camera body with supplied viewfinder)
Operating Temperature	-10°C to +45°C 14°F to +113°F
Storage Temperature	-20°C to +60°C -4°F to +140°F
Dimensions (W x H x D) *1	(Body) 160 x 266 x 314 mm (Body) 6 3/8 x 10 1/2 x 12 3/8 inches (with Lens&VF) *2 295 x 433 x 571 mm (with Lens&VF) *2 11 5/8 x 17 1/8 x 22 1/2 inches
Mass	(Body) Approx. 3.4 kg (Body) Approx. 7 lb 8 oz (with Lens&VF) Approx. 6.8 kg (with Lens&VF) Approx. 14 lb 16 oz

Camera Section

Pickup Device	3-chip 2/3-inch type CMOS
Effective Picture Elements	1920 x 1080 (H x V)
	HD: 1080/59.94p, 1080/59.94i, 1080/50p, 1080/50i, 1080/29.97PsF,

Signal Format	1080/25PsF, 1080/23.98PsF, 720/59.94p, 720/50p SD: 480/59.94i, 576/50i
Spectrum System	F1.4 prism system
Lens Mount	Sony 2/3-inch type bayonet mount
Built-in Filters	CC: Electrical ND: 1; CLEAR, 2; 1/4ND, 3; 1/16ND, 4; 1/64ND
Sensitivity (at 2000 lx, 3200K, 89.9% reflectance)	F12 (59.94 Hz), F13 (50 Hz)
Signal-to-noise Ratio	Typical 60dB *3 (1080/59.94i)
Horizontal Resolution	1,000 TV lines or higher
Gain	-3, 0, 3, 6, 9, 12 dB
Shutter Speed	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (59.94i mode)
Shutter Speed (Slow Shutter (SLS))	2, 3, 4, 5, 6, 7, 8-frame accumulation (only in 1080 mode at 59.94i/p, 50i/p, 29.97PsF, 25PsF, 23.98PsF)

Input/Output

Audio Input (CH1)	XLR type: 3-pin, female (x1) MIC IN: -60dBu (Up to -20dBu can be set by using menu or HXCU-FB80), balanced LINE IN: 0dBu, balanced	
Audio Input (CH2)	XLR type: 3-pin, female (x1) MIC IN: -60dBu (Up to -20dBu can be set by using menu or HXCU-FB80), balanced LINE IN: 0dBu, balanced	
Prompter/Genlock	BNC (x1); Gen-Lock In or Prompter Out	
Test Output	TEST Out (Analog output with/without characters), or HD/SD Sync Out	
SDI Input/Output	BNC (x1) SMPTE ST292-1, for HD Prompter Out or HD Video Trunk In	
SDI Output	BNC (x1) SMPTE ST425-1/ST292-1/259M; 3G/HD-SDI or SD-SDI selectable	
CCU	Optical Fiber (x1), CCFN Cable or Single Mode Fiber Cable (LC type)	
Distance of Power Supply	600m (max.) by CCFN Sony Hybrid Type Fiber Cable (with Portable	

	Lens and HXCU-FB80)
Distance of Fiber Cable	10km (max.) by Single Mode Fiber Cable (LC type) with Local Power Supply (with HXCU-FB80)
Intercom	XLR type: 5-pin, female (x1)
Earphone Output	Stereo mini jack (x1)
Lens	12-pin (x1)
Viewfinder	20-pin (1), for HDVF only
Remote	8-pin (x1)
TRUNK Input/Output	TRUNK LINE D-sub 9-pin, female (x1) : RS-232C, or Remote 8pin : RS-422A
EXT Input/Output	(in TRUNK I/O) D-sub 9-pin, female (x1)
USB	USB 2.0 (x1)
DC Input	XLR-type 4-pin (x1), DC 10.5 V to 17 V
DC Output	4-pin (x1), DC 10.5 V to 17 V, 1.5 A (max.)

Viewfinder Display

Screen Size	155.5 x 87.5mm (7 inch diagonal)
Aspect Ratio	16:9
Picture Elements	1920(H) x 1080(V) RGB stripe array

Lens

Lens Mount	2/3-inch type Sony Bayonet
Focal Length	8.2mm (11/32 inches) to 164mm (6 1/2 inches)
Zoom	Servo/Manual selectable
Zoom Ratio	20 x
Maximum Relative Aperture	1: 1.9
Iris	Auto/Manual selectable F1.9 to F16 and C (Close)
Focus	Full manual focus 900 mm to ∞ (MACRO OFF) 10 mm to ∞ (MACRO ON, Wide)
Filter Thread	M82 mm, pitch 0.75 mm
Macro	On/Off switchable

Supplied Accessories

Supplied Accessories	Camera Operation Guide (1) Operating Instructions (CD-ROM 1), JP, GB, FR, DE, IT, ES, CS 7 inch Large Viewfinder (1) Viewfinder Operation Guide (1) Viewfinder Operation Manual (CD-ROM 1), GB, CS 2/3-inch type HD Portable Lens (1) Lens Mount Cap (1) Flange back adjustment chart (1) Cable clamp belt (1) V-shoe (1) Viewfinder Hood (1) Viewfinder Cable 20pin (1) Tally Number Plate (0~9) Warranty booklet (1)

Notes	
*1	The values for dimensions are approximate.
*2	The values for dimensions are in the maximum height position of viewfinder's slide mechanism without hood.
*3	The value is in NS (Noise Suppressor) : ON mode.

*4	This specification data is for the HXC-FB80SN
Optical Low Pass Filter for HXC series cameras	In cases where a HXC Series camera's built-in Filter does not fully reduce the moire caused by some LED walls, the optional Optical Low Pass Filter(OLP) will help further reduce the moire effect(Part number: 1-856-731-31) *:HXC-FB80, FB75 and P70 (for regions other than China) *:HXC-FB80, E75 and P70 (for China)

Product contains pre-installed software

	This product contains pre-installed software and requires the purchase of licence keys to activate some functions.

Related products

HXCU-FB80

HDVF-L750

HDVF-L770

HDVF-EL75

4K / HD Camera Control Unit for HXC-FB80 cameras

Full HD 7-inch LCD viewfinder

Full HD 7-inch LCD viewfinder, adjustable with large handle

7.4-inch OLED Viewfinder for portable cameras

HDVF-EL30

OLED 0.7-inch colour Full HD viewfinder with 3.5-inch sub-LCD

HDVF-EL20

OLED 0.7-inch colour HD viewfinder

HDVF-L10

3.5" Colour LCD HD Viewfinder

CAC-12

Adjustable camera microphone holder

ECM-678

Shotgun Electret condenser microphone

ECM-674

Affordable shotgun Electret condenser microphone

ECM-673

Short Shotgun Electret Condenser Microphone.

AC-DN2B

AC Adapter (150W output) and Lithium-Ion battery charger

AC-DN10

AC Adaptor/Charger

RCP-1000

Joystick type of simple Remote Control Panel for HDC/HSC/HXC series cameras.6 units in 19-inch EIA rack.

RCP-1001

Dial type of simple Remote Control Panel for HDC/HSC/HXC series cameras. 6 units in 19-inch EIA rack.

RCP-1500

Joystick type of Remote Control Panel for HDC/HSC/HXC series cameras. 4 units in 19-inch EIA rack.

RCP-1501

Dial type of Remote Control Panel for HDC/HSC/HXC series cameras. 4 units in 19-inch EIA rack.

RCP-1530

Joystick type of Remote control panel for HDC/HSC/HXC series cameras. 5 units in 19-inch EIA rack.

RM-B170

Affordable handheld remote control unit for Sony studio cameras and camcorders

CCFN-25

25 metre optical fibre hybrid cable with opticalCON connector

CCFN-50

50 metre optical fibre hybrid cable with opticalCON connector

CCFN-100

100 metre optical fibre hybrid cable with opticalCON connector

CCFN-150

150m Optical Fibre Hybrid Cable with opticalCON connector

CCFN-200

200m Optical Fibre Hybrid Cable with opticalCON connector

CCFN-250

250m Optical Fibre Hybrid Cable with opticalCON connector

CCFN-JC1

Coupler for cascade connection

MSU-1000

Master setup unit, multi camera remote control panel for HDC / HSC cameras (horizontal type)

MSU-1500

Master setup unit, multi camera remote control panel for HDC / HSC cameras (vertical type)

HKCU-FP2

Front control panel for HSCU-300R/RF and HXCU-TX70

CNA-1

Camera control network adaptor

CA-TX70

Digital triax adapter for HXC-D70

HXCU-TX70

Digital triax Camera Control Unit for HXC-D70

PVM-X550

55-inch 4K TRIMASTER EL™ OLED high grade picture monitor

VCT-14

TRIPOD ADAPTOR FOR PORT. CAMERAS/CAMC.

CBK-SP01

Optional Soft Shoulder Pad

HKC-LC01

Optical fibre transmission connector

HKC-LC02

LEMO connector modification kit for HXCU-FB70

HZC-RCP5

Camera Remote Control Software for HXC-FB80, HXC-P70, HXC-D70, HXC-100R/RF and HSC-300R/RF

HZC-CSM10

Master Setup Unit (MSU) PC Software

HXCE-FB70

Power supply extension unit for HXC-D70 and PMW-320/350/400/500 camcorders

BVM-X300 V2

30-inch 4K TRIMASTER EL™ OLED critical reference monitor

BVM-E171

16.5-inch TRIMASTER EL™ OLED critical reference monitor with wide viewing angle supports 4K production

LMD-B170

17-inch cost-effective, lightweight basic grade Full HD LCD monitor for versatile use

LMD-B240

24-inch cost-effective, lightweight basic grade Full HD LCD monitor for versatile use

HDRC-4000

HDR Production Converter Unit

RCP-3100

Joystick type of remote control panel for HDC/HSC/HXC series cameras.
5 units in 19-inch EIA rack.

LMD-A170

17-inch lightweight Full HD high grade LCD monitor for studio and field use

LMD-A240

24-inch lightweight Full HD high grade LCD monitor for studio and field use

LMD-A220

21.5-inch lightweight Full HD high grade LCD monitor for studio and field use

BRC-H800

Premium Full HD PTZ Camera with 12x optical zoom and uncompromising broadcast picture quality

BRC-H900

Full HD robotic studio camera with 1/2-type Exmor 3CMOS sensor and 14x optical zoom

BRC-X1000

Premium 4K30P PTZ Camera with 12x optical zoom and uncompromising broadcast picture quality

BRC-X400

Premium 4K30P IP PTZ Camera with 30x (w/CIZ) zoom and NDI®|HX capability for use in a wide range of environments

Gallery

![Sony logo]