

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 (HXC-RCP5)

In addition to hardware-based remote control units, PC software-based HXC-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)
Signal Format	HD: 1080/59.94p, 1080/59.94i, 1080/50p, 1080/50i, 1080/29.97PsF, 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	2, 3, 4, 5, 6, 7, 8-frame accumulation (only in 1080

(Slow Shutter
(SLS))

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)

600m (max.) by CCFN Sony

Distance of Power Supply	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

Camera Operation Guide (1)
Operating Instructions (CD-ROM 1), JP, GB, FR, DE, IT, ES, CS
7 inch Large Viewfinder (1)

Supplied Accessories

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

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

Optical Low Pass Filter for HXC series cameras

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



ECM-674

Affordable shotgun Electret condenser microphone



PVM-X550

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



ECM-673

Short Shotgun Electret Condenser Microphone.



MSU-1000

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



RCP-1500

Joystick type of Remote Control Panel for HDC/HSC/HXC series cameras. 4



RCP-1501

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



AC-DN2B

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



HXC-RCP5

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

units in 19-inch EIA rack.

rack.

300R/RF



LMD-B170

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



ECM-678

Shotgun Electret condenser microphone



CNA-1

Camera control network adaptor



CAC-12

Adjustable camera microphone holder



HKCU-FP2

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



HXCU-FB80

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



HXCE-FB70

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



HDVF-EL20

OLED 0.7-inch colour HD viewfinder



AC-DN10

AC Adaptor/Charger



RCP-1001

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



CBK-SP01

Optional Soft Shoulder Pad



RCP-3100

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



RCP-1000

Joystick type of simple Remote Control Panel for



HXCU-TX70

Digital triax Camera Control Unit for



CA-TX70

Digital triax adapter for HXC-D70 and PMW-



BRC-X1000

4K Pan Tilt Zoom camera with 1.0-type Exmor R CMOS

HDC/HSC/HXC series cameras.6 units in 19-inch EIA rack.

HXC-D70 and PMW-320/350/400/500 camcorders

320/350/400/500 camcorders

sensor (colour availability may vary by country)



BVM-E171

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



BVM-X300 V2

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



RM-B170

Affordable handheld remote control unit for Sony studio cameras and camcorders



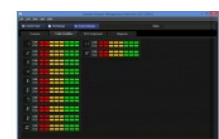
HDVF-L10

3.5" Colour LCD HD Viewfinder



HDRC-4000

HDR Production Converter Unit



HZC-CSM10

Master Setup Unit (MSU) PC Software



LMD-A220

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



LMD-B240

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



LMD-A170

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



HDVF-L750

Full HD 7-inch LCD viewfinder



HDVF-EL30

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



HDVF-EL75

7.4-inch OLED Viewfinder for portable cameras



BRC-X400

IP 4K Pan-Tilt-Zoom Camera with



HDVF-L770

Full HD 7-inch LCD viewfinder,



BRC-H800

Full HD Pan Tilt Zoom camera with



BRC-H900

Full HD robotic studio camera with

NDI®*|HX
capability

adjustable with
large handle

1.0-type Exmor R
CMOS sensor
(colour availability
may vary by
country)

1/2-type Exmor
3CMOS sensor and
14x optical zoom



RCP-1530

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



LMD-A240

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



MSU-1500

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



VCT-14

TRIPOD ADAPTOR
FOR PORT.
CAMERAS/CAMC.

Gallery



