

SONY

HXC-FB80

HD Portable Camera

HXC-P70

HD Multi-Purpose Camera

HXCU-FB80

4K/HD Camera Control Unit **4K**



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

Sony introduces an ideal solution for 4K/HD live production, delivering efficient operation and expanding applications in the business and industry market in addition to the content creation applications for broadcast and production. The new HXC-FB80 HD Portable Camera as well as the HXC-P70 Multi-Purpose Camera are equipped with three 2/3-inch full-HD Exmor™ CMOS sensors to provide excellent sensitivity – F13 in 50 Hz and F12 in 59.94 Hz in 1080 mode – with a typical signal-to-noise ratio of -60 dB. With sensors common to both the HXC-FB80 and HXC-P70, you can flexibly configure these cameras as required, and you can use a wide range of output formats.

The newly developed 3G platform enhances the HXC-FB80's capabilities in 1080/50p and 59.94p signal processing while achieving low power consumption.

Furthermore, in combination with the HXCU-FB80 4K/HD Camera Control Unit, the HXC-FB80 offers useful 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 also available for a simpler application system.

* Supported with the HXC-FB80 and HXCU-FB80. HD HDR support requires firmware upgrade.

HXC-FB80



HXCU-FB80 4K



HXC-FB80HN / HXC-FB80HL

HXC-FB80KN / HXC-FB80KL

HXC-FB80SN / HXC-FB80SL

HXCU-FB80N / HXCU-FB80L

Three Sony 2/3-Inch Exmor™ CMOS Sensors

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



3G Platform Capable of 1080/50p and 59.94p

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

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).* For 4K signal output, the HXCU-FB80 is equipped with a 12G-SDI interface with quad 3G-SDI.



* Requires firmware upgrade available in 2018.

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 platform. Further to traditional analog composite prompter support, the HD-SDI signal can be supplied from the CCU side.



Model Variations

HXC-FB80 camera

- HXC-FB80HN / HXC-FB80HL Body only
- HXC-FB80KN / HXC-FB80KL Body + Lens Kit + Viewfinder + Microphone
- HXC-FB80SN / HXC-FB80SL Body + Lens Kit + Large Viewfinder

HXCU-FB80 CCU

- HXCU-FB80N ● HXCU-FB80L

The N suffix indicates a Neutrik connector; the L suffix indicates a LEMO connector. In this brochure, HXC-FB80 refers to the HXC-FB80 Series and HXCU-FB80 refers to the HXCU-FB80 Series unless otherwise specified.

HXC-FB80

Longer 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 addition to the Neutrik connector interface, a LEMO connector interface is also available for the camera head and CCU.

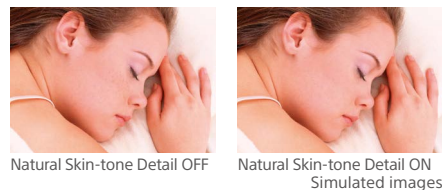
Long-Distance Transmission with Single-Mode Fiber Cable

When you connect using a single-mode fiber (SMF) cable, and provided there is a local power supply, transmission can extend up to 10 km. In many facilities, SMF is already laid out as part of the infrastructure, allowing you to install the camera system quickly and easily.

Variety of Picture Adjustment Functions

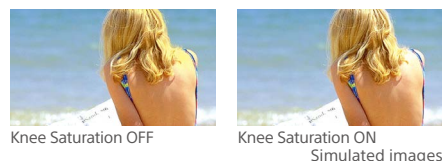
Skin-tone detail

This function allows adjustment (emphasis or suppression) of the detail level for a specific hue or chroma area in the image, such as human skin tones. Three channels of skin tone gate can be set. With this you are able to create the appropriate natural skin tone in a wide range, depending on shooting object conditions.



Knee saturation

Hue and chroma in highlighted areas can be adjusted to reproduce natural human skin tones under strong lighting.



Selection of multiple gamma tables

Seven types of standard and four types of hyper gamma table are featured. The hyper gamma values enable cinema-like image creation with wide dynamic range.

Adaptive-matrix function

This enables ideal color conversion for shooting even under excessively strong ambient lighting conditions such as live shooting under bright monochromatic blue light. These conditions would typically cause a conventional matrix function to exceed the color conversion range.

Other functions

Black Gamma, Multi-Matrix, Low Key Saturation, Master White Gain, Extended Clear Scan Shutter, etc.

ND Filter by Servo Motor

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

Total Level Control System (TLCS)

The TLCS function provides automatic control of gain/iris/shutter, and is a highly effective tool to cope with changing lighting conditions for surveillance use. It helps to achieve the shooting image with the required picture level.

Digital Extender

This is available at x2 or x4 magnified picture output, and x2 or x4 mode can be remotely controlled by selecting an assignable setting. You can change the Digital Extender mode using the CCU control panel of the HXCU-FB80, an RCP remote control panel, or an external control via Sony Simple Camera Protocol.



Supplied with HD Viewfinder, HD Lens and Monaural Microphone

The HXC-FB80K camera package includes the 3.5-inch QHD Color LCD Monocular Viewfinder which offers better and easier focusing than comparable viewfinders. The camera is also supplied with a portable HD 20x zoom lens and monaural electret condenser microphone.

Slow Shutter with 8-Frame Accumulation and +12 dB Gain-Up*

Utilizing the Slow Shutter function, you can achieve up to 8 frames of frame accumulation. In combination with the +12 dB gain-up function, appropriately exposed pictures are available while keeping sharpness without noise, even in very dark environments. These unique features can be used in a wide range of applications.

* This capability is available only in HD1080 mode; it is unavailable in HD720 mode.

HXC-FB80

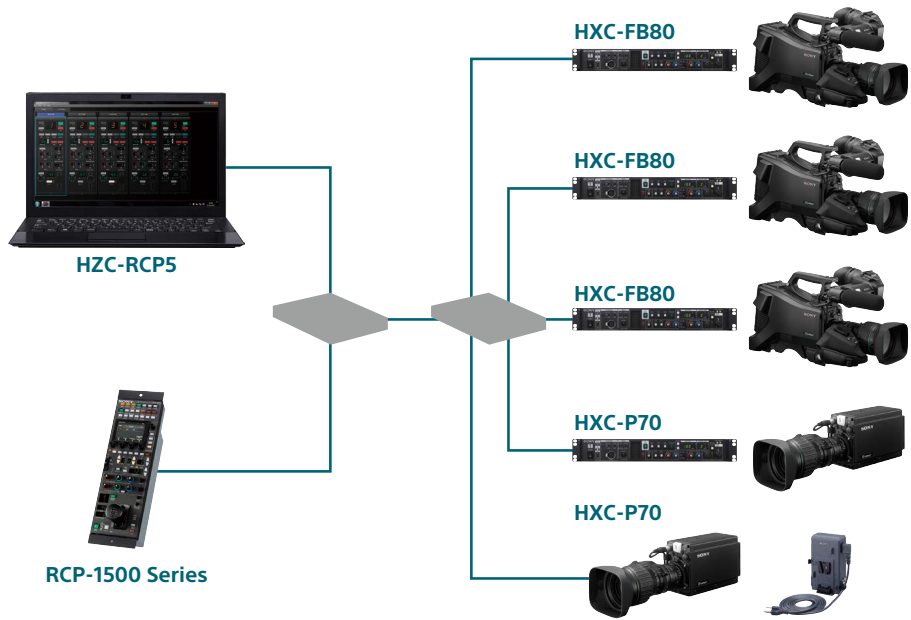
PC-RCP Operations – HZC-RCP5

HZC-RCP5 is a software-based camera remote control available in Windows 7, 8.1, and 10. It can operate up to five camera system units simultaneously via a LAN connection. In combination with the RCP-1500 Series Remote Control Unit, the HZC-RCP5 can control each camera system individually. When used with the HXC-P70, it can be connected either with or without the CCU for RCP connection.



HZC-RCP5 Control Panel UI

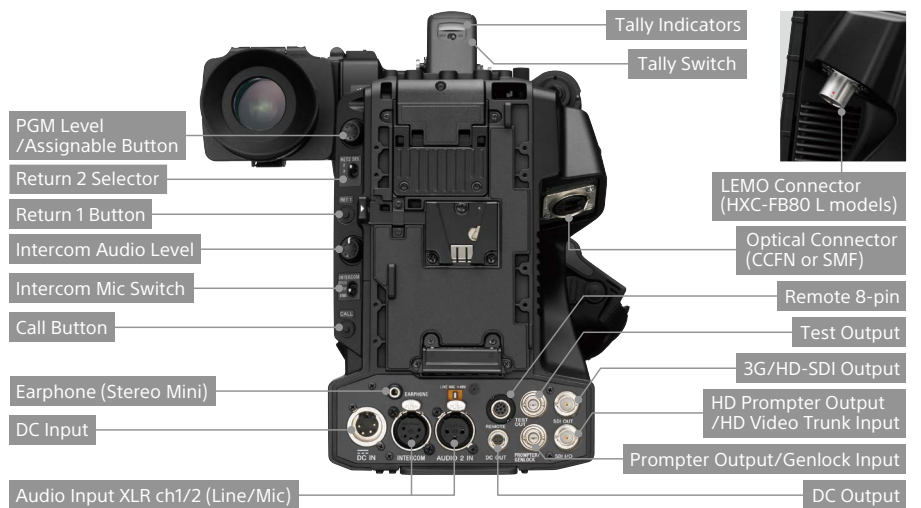
HZC-RCP5 Paint Menu UI



Multi Camera System Control Connection Example

Camera Rear Panel Connectors and Intercom Switches

The HXC-FB80 camera has additional connector functions including video trunk through an 8-pin remote connector (RS422) and SDI IN/OUT connector, which also supports prompter input.



Multi-Camera System (MCS)

Using Sony's MSU-1500 or MSU-1000 master setup unit or the HZC-CSM10 PC-based master setup software, up to 24 HXC-FB80 and HXC-P70 camera system units can be controlled via a LAN cable or remote cable.



MSU-1500



MSU-1000

HXC-P70

HD Multi-Purpose Camera



HXC-P70H



HXC-P70H with optional lens kit

Long-Distance Transmission Up To 10 km

The hybrid-type optical fiber cable can extend the distance between the camera and the HXCU-FB80 CCU to a maximum of 500 m* while supplying the required power. Using single mode fiber (SMF) cables, this distance can extend up to 10 km with a local power supply. The HXC-P70 can utilize the SMF cable infrastructure that's often available in many buildings, which means you can install the camera system quickly and easily.

* Fiber cable extension up to 500 m is available when you are also using a portable lens.

Slow Shutter with 64-Frame Accumulation and +48 dB Gain-Up

Utilizing the Slow Shutter function, frame accumulation is possible up to 64 frames.* In combination with the +48 dB gain-up function, very bright pictures are available even in very dark environments. These unique features can be used in wider roles such as surveillance and security, as well as in production studios, auditoriums, conferences, houses of worship, and for other unmanned applications.

* This capability is available only in HD1080 mode; it is unavailable in HD720 mode.

Integrated ND Filter, Electrical CC Filter

The HXC-P70 is equipped with a neutral density (ND) optical servo filter unit and electrical color correction (CC) filter. Along with ND filter selection, the CC filter can be controlled locally or from a remote control panel and offers four color temperature settings.

Total Level Control System (TLCS)

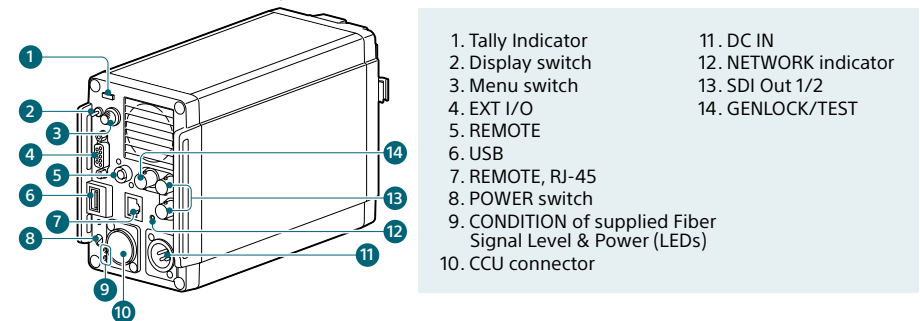
The TLCS function provides automatic control of gain/iris/shutter, and is a highly effective tool to cope with changing lighting conditions for surveillance use. It helps to achieve the shooting image with the required picture level.

IP Connection From RCP

Remote control over an IP connection from the remote control panel (RCP) is provided via a LAN cable interface on the rear panel. This is available in addition to the traditional 8-pin remote connector.

Versatile Camera Interfaces

The HXC-P70 provides a wide range of inputs and outputs via the onboard connector panel, including two HD/SD-SDI outputs, a return signal output, prompter signal output, and test (VBS analog) signal output, etc. Moreover, there are Ethernet interfaces for remote control in addition to the remote 8-pin connector, and trunk line and assignable functions on the D-sub 9-pin connector.



In addition to these electrical interfaces, the camera has top and bottom plates that are mechanically the same; the position and size of the screws and holes are identical. This allows you to achieve upside-down installation.

Connecting to HXCU-FB80

Enhanced HXCU-FB80 4K/HD Camera Control Unit - Expandable operability and connectivity

In addition to advanced features inherited from the previous HXCU-FB75 CCU model, the HXCU-FB80 CCU has been further enhanced with the 3G platform. This new platform enables 1080/50p and 59.94p and 4K (3840 x 2160) upscale signal processing, and HD HDR support.* In addition, a 12G-SDI interface is exclusively provided with a quad 3G-SDI interface.

Model variations are available with different types of connector to the camera system: a Neutrik connector for a hybrid fiber cable or single mode fiber (SMF) cable, and a LEMO connector.

* HLG (Hybrid Log-Gamma) supported with firmware upgrade in 2018.



HXCU-FB80 Front



HXCU-FB80N Rear (Neutrik)



SMF cable

Hybrid fiber cable

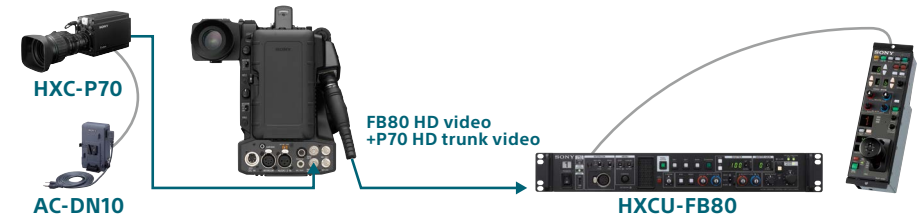
HXCU-FB80L Rear (LEMO)

LEMO cable

HD Video Trunk with Embedded Audio

Thanks to the 3G platform of the HXC-FB80, another video signal arriving from outside the camera can be passed through the same fiber connection line to the CCU, in addition to the camera-captured video signal.

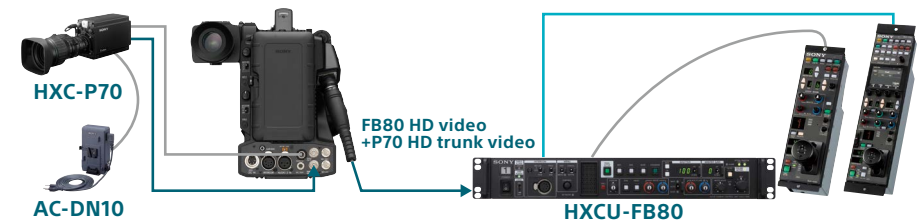
Here is an example of how this works. The HXC-P70's video signal located next to the HXC-FB80 can be sent over the HD video trunk line, via the HXC-FB80's fiber cable, to the HXCU-FB80.



Double Remote Control*

This HD video trunk function will be further enhanced by supporting a remote control function for the second video camera system through the HXCU-FB80 CCU.

* This will be supported with future firmware upgrade.



Variety of Remote Control

A variety of remote control units are available including the RCP-1500 Series, RCP-1000 Series, and RM-150 as well as the HZC-RCP5 Remote Control Software.



RCP-1500 Series

RCP-1530

RCP-1000 Series

RM-B170

HZC-RCP5

HXC-FB80 and HXCU-FB80 Connection

Long-Distance Cable Extension

There are different types of extension cable connection. For fiber cable connection, you can use single-mode fiber or hybrid fiber. These cables can be combined with the HXCE-FB70 Power Supply Extension Unit. In addition, you can achieve triax cable connection using the CA-TX70 camera adaptor in combination with the HXCU-TX70 triax CCU.



HXCE-FB70: Power Supply Extension Unit

The HXCE-FB70 is very useful for building a flexible system. You can combine Sony's CCFN hybrid cable and single mode fiber cable in order to maintain cable wiring durability over a long distance.

The HXCE-FB70 has the same power supply capability as the HXCU-FB80, and can pass all signals through either a single-mode optical fiber cable or a hybrid fiber cable.



HXCE-FB70 Front

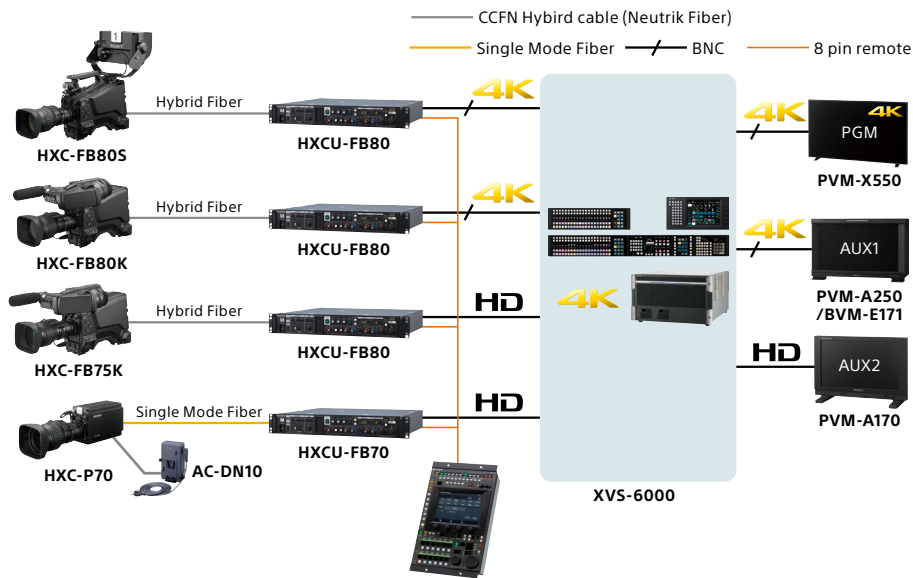


HXCE-FB70 Rear

Live System Examples

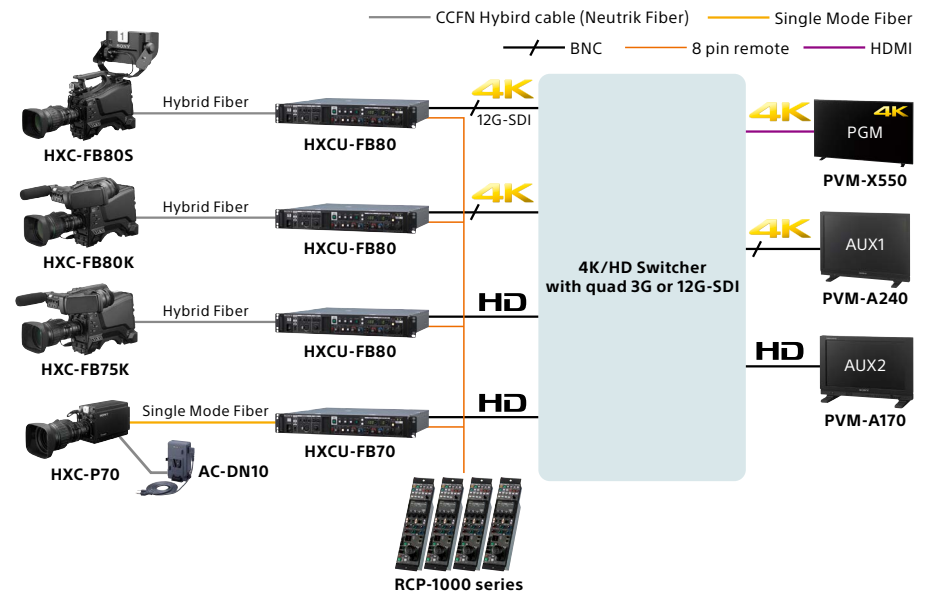
Studio 4K Live System

The HXC-FB80 can begin 4K operation with the HXCU-FB80 CCU while utilizing a 4K switcher and 4K monitors in Sony's total live system. Also, the common image sensor adopted in the HXC Series makes it easy to adjust image reproduction between these cameras, especially in HD operation. Including the HXC-P70 camera in your system is likely to achieve efficient camera operation.



Small Conference/Presentation 4K Application

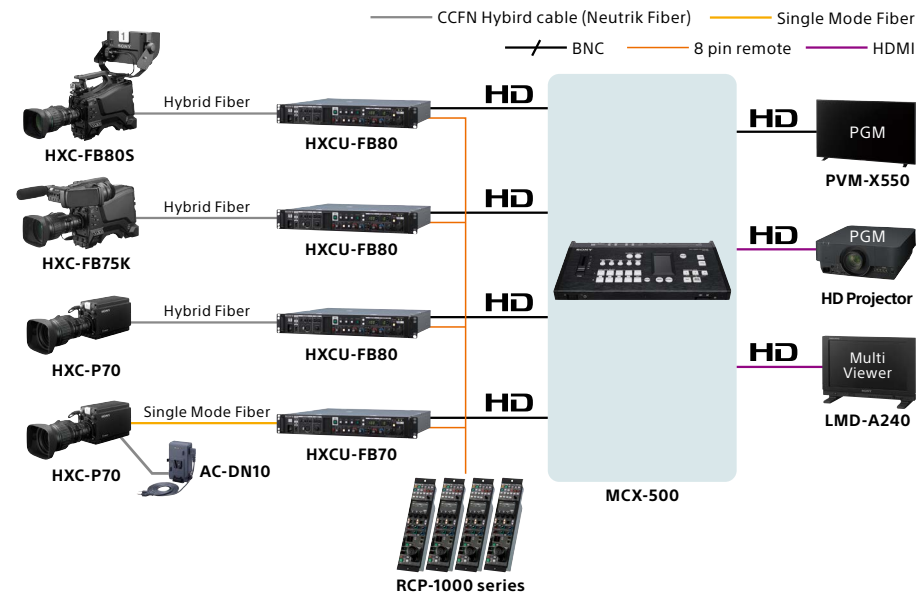
You can also achieve 4K operation with the HXC-FB80 combined with the HXCU-FB80 by replacing the 4K switcher with any lower-cost 4K/HD-compatible switcher incorporating a 12G-SDI or quad 3G-SDI interface.



Live System Examples

Large Conference / Presentation HD Application

The HXC-FB80 and HXCU-F80 can work in traditional HD operations with the predecessor HD models.

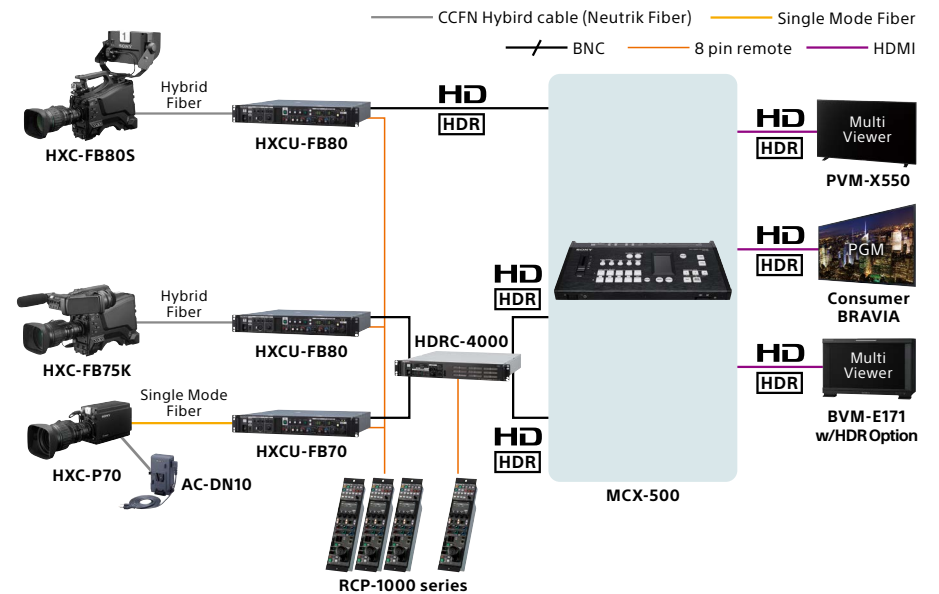


Small Public Viewing / Presentation HD HDR Application




Incorporating an HD HDR capability with HLG (Hybrid Log-Gamma), the HXC-FB80 and HXCU-FB80 combination offers HLG end-to-end HDR operation* in the HD domain including HDR-ready monitors and TVs.

The HDRC-4000 HDR Production Converter Unit supports conventional SDR equipment to bring these items into the HLG domain.

* Will be supported with firmware upgrade.



Specifications

		HXC-FB80SN /HXC-FB80SL 	HXC-FB80KN /HXC-FB80KL 	HXC-FB80HN /HXC-FB80HL 	
General	Power Consumption	Approx. 32W (Camera body with supplied viewfinder)		Approx. 22W (Camera body with supplied viewfinder)	
	Operating Temperature	-10°C to +45°C (14°F to +113°F)		-20°C to +60°C (-4°F to +140°F)	
	Storage Temperature	-20°C to +60°C (-4°F to +140°F)		-20°C to +60°C (-4°F to +140°F)	
	Dimensions (W x H x D)*1	(with Lens&VF)*3 295 x 433 x 571 mm (with Lens&VF)*3 11 5/8 x 17 1/8 x 22 1/2 inches	(with Lens&VF)*2 254 x 266 x 529 mm (with Lens&VF)*2 10 x 10 1/2 x 20 7/8 inches	(Body) 160 x 266 x 314 mm (Body) 6 3/8 x 10 1/2 x 12 3/8 inches	
Camera Section	Mass	(with Lens&VF) Approx. 6.8 kg (with Lens&VF) Approx. 14 lb 16 oz	(with Lens&VF) Approx. 5.7 kg (with Lens&VF) Approx. 12 lb 9 oz	(Body) Approx. 3.4 kg (Body) Approx. 7 lb 8 oz	
	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			
Input/Output	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	F12 (59.94 Hz), F13 (50 Hz) (at 2000 lx, 3200K, 89.9% reflectance)			
	Signal-to-noise Ratio	Typical 60dB*4 (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) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (50i 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)			
	Audio Input (CH1/CH2)	XLR type: 3-pin, female (x2) 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	BNC (x1); TEST Out (Analog output with/without characters), or HD/SD Sync Out			
	SDI Input/Output	BNC (x1); for HD Prompter Out or HD Video Trunk In			
	SDI Output	BNC (x1); 3G/HD-SDI or SD-SDI selectable			
	CCU	(N); Optical Fiber (x1), CCFN Cable or Single Mode Fiber Cable (LC type) (L); Optical Fiber (x1), Lemo Cable			
Viewfinder Display	Distance of Power Supply	(N); 600m (max.) by CCFN Sony Hybrid Type Fiber Cable (with Portable Lens and HXCU-FB80) (L); 600m (max.) by Lemo Cable (with Portable Lens and HXCU-FB80)			
	Distance of Fiber Cable by Local Power Supply	(N); 10km (max.) by Single Mode Fiber Cable (LC type) (with HXCU-FB80) (L); 10km (max.) *5 by Lemo Cable (with HXCU-FB80)			
	Intercom	XLR type: 5-pin, female (x1)			
	Earphone Output	Stereo mini jack (x1)			
	Lens	12-pin (x1)			
	Viewfinder	20-pin (x1), for HDVF only			
	Remote	8-pin (x1)			
	TRUNK Input/Output	TRUNK LINE D-sub 9-pin, female (x1) : RS-232C, or Remote 8-pin : 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.)			
	Lens	Screen Size	155.5 x 87.5 mm (7-inch diagonal)	960(H) x 3 x 540(V) RGB stripe array	-
		Aspect Ratio	16:9	16:9	-
		Picture Elements	1920(H) x 1080(V) RGB stripe array	960(H) x 3 x 540(V) RGB stripe array	-
Lens Mount		2/3-inch type Sony Bayonet			
Focal Length	8.2mm (11/32 inches) to 164mm (6 1/2 inches)				
Zoom (Ratio)	Servo/Manual selectable (20x)				
Maximum Relative Aperture	1:1.9				
Iris	Auto/Manual selectable				
Focus	Full manual focus				
Filter Thread	900 mm to ∞ (MACRO OFF), 10 mm to ∞ (MACRO ON, Wide)				
Macro	M82 mm, pitch 0.75 mm On/Off switchable				
Supplied Accessories	Supplied Accessories	Camera Operation Guide (1), Operating Instructions (CD-ROM 1), Lens Mount Cap (1), Flange back adjustment chart (1), Cable clamp belt (1), Warranty booklet (1)			
		7-inch Large Viewfinder (1), Viewfinder Operation Guide (1), Viewfinder Operation Manual (CD-ROM 1), 2/3-inch type HD Portable Lens (1), V-shoe (1), Viewfinder Hood (1), Viewfinder Cable 20pin (1), Tally Number Plate (0-9)	Portable Viewfinder (1), 2/3-inch type HD Portable Lens (1), Microphone (1), Windscreen (1)	-	

*1 The values for dimensions are approximate.

*2 The value for width is in the minimum position of viewfinder's slide mechanism.

*3 The values for dimensions are in the maximum height position of viewfinder's slide mechanism without hood.

*4 The value is in NS (Noise Suppressor) : ON mode.

*5 Fasten the ground terminal of local power supply device of camera head to earth as CCU side.

HXC-P70



General	Power Requirements	CCU: DC48V, 1.7A (max.) Ext.DC In: DC12V, 3.6A (max.)	
	Power Consumption	17W	
	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	86 x 130 x 210 mm (3 1/2 x 5 1/8 x 8 3/8 inches)	
	Mass	Approx. 1.5 kg Approx. 3 lb 4 oz	
	Camera Section	Pickup Device	3-chip 2/3-inch type CMOS
		Effective Picture Elements	1920 x 1080 (H x V)
		Signal Format	HD: 1080/59.94i, 1080/50i, 1080/29.97PsF, 1080/25PsF, 720/59.94p, 720/50p SD: 480/59.94i, 576/50i
		Spectrum System	F1.4 prism system
Lens Mount		Sony 2/3"-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*2 (1080/59.94i)	
Horizontal Resolution		1,000 TV lines or higher	
Gain		-3, 0, 3, 6, 9, 12, 18, 24, 30, 36, 42, 48 dB	
Input/Output	Shutter Speed	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (59.94i mode) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (50i mode)	
	Shutter Speed (Slow Shutter (SLS))	2, 3, 4, 5, 6, 7, 8, 16, 32, 64-frame accumulation (Only for HD1080 mode)	
	Mic Input	-60dBu to -20dBu, Balance, via D-Sub 9pin, female (x1)	
	GL/Test	BNC (x1); Gen-Lock In, HD/SD Sync Out, Prompter Out, or TEST Out (Analog output with characters)	
	SDI Output	BNC (x2) HD-SDI or SD-SDI selectable	
	CCU	Optical Fiber (x1), for Single Mode Fiber Cable	
	Distance of Power Supply (with HXCU-FB70)	500m (max.) by CCFN Sony Hybrid Type Fiber Cable with Portable Lens Installed	
	Distance of Fiber Cable (with HXCU-FB70)	10km (max.) by Single Mode Fiber Cable with Local Power Supply	
	Lens	12-pin (x1)	
	Remote	8pin (x1) RJ-45 (x1); Ether 10BASE-T, 100BASE-TX (in EXT I/O) D-sub 9-pin, female (x1)	
Supplied Accessories	EXT Input/Output	D-Sub 9pin, female (x1) RS-232C	
	USB	USB 2.0 (x1)	
	DC Input	XLR-type 4-pin (x1), DC 10.5 V to 17 V	
	DC Output	DC 10.5 V to 17 V, 1.5 A (max.) via D-Sub 9pin	
	Supplied Accessories	Operation Guide (1), Operation Manual (CD-ROM 1), Tally Number Plate (1)	

*1 The values for dimensions are approximate.
*2 The value is in NS (Noise Suppressor) : ON mode.

HXCE-FB70



General	Power supply	AC 100 V to 240 V, 50/60 Hz
	Operation temperature	5°C to 40°C (41°F to 104°F)
	Storage temperature	5°C to 40°C (41°F to 104°F)
	Dimensions (W x H x D)	104 x 62 x 360 mm (4 1/8 x 2 1/2 x 14 1/4 inches)
Inputs/Outputs	Mass	2.3 Kg (5 lb 1.1 oz)
	Camera	Optical Multi connector (x1)
Supplied Accessories	CCU	Optical Multi connector (x1)
	Supplied Accessories	Operation instructions (1), CD-ROM (1), Warranty booklet (1)

HXCU-FB80N /HXCU-FB80L

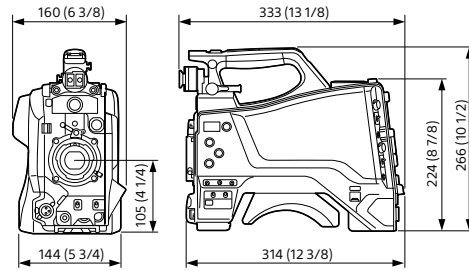


General	Power Requirements	AC 100 V to 240 V, 2.2A (max), 50/60 Hz	
	Operating Temperature	5°C to +40°C (41°F to +104°F)	
	Storage Temperature	-20°C to +60°C (-4°F to +140°F)	
	Dimensions (W x H x D)*1	482 (424) x 66 x 366 mm (19 (16 3/4) x 2 5/8 x 14 1/2 inches)	
	Mass	Approx. 6.2 kg (Approx. 13 lb 11 oz)	
	Signal Format	4K 2160 : 59.94p, 50p (2SI, SQD, Level-A/B) HD 1080 : 59.94p, 59.94i, 50p, 50i, 29.97PsF, 25PsF, 23.98PsF, HD 720 : 59.94p, 50p SD 480 : 59.94i, 576i, 50i	
	Input/Output	Camera	(N); Optical Fiber (x1), CCFN Cable or Single Mode Fiber Cable (LC type) (L); Optical Fiber (x1), Lemo Cable
		Distance of Power Supply	(N); 600m (max.) by CCFN Sony Hybrid Type Fiber Cable (with Portable Lens and HXC-FB80), (N); 1,000m (max.) by CCFN Sony Hybrid Type Fiber Cable (with Portable Lens and HXC-P70) (L); 600m (max.) by Lemo Fiber Cable (with Portable Lens and HXC-FB80)
		Distance of Fiber Cable by Local Power Supply	(N); 10km (max.) by Single Mode Fiber Cable (LC type) (with HXC-FB80) (L); 10km (max.) *2 by Lemo Fiber Cable (with HXC-FB80)
		Intercom (on the front panel)	XLR type: 5-pin, female (x1)
Intercom/Tally/Program		D-sub 25-pin, female (x1) • INTERCOM (PROD, ENG), 4Wire/RTS/Clear-Com, 0 dBu • PGM 1 system, -20/0/+4 dBu • TALLY (R, G) • PREVIEW	
Remote		8-pin (x1)	
Trunk		D-sub 9-pin, female (x1) RS-232C/RS-422A, 1 system	
LAN		8-pin (x1)	
Reference		BNC (x2), Out: Loop-Through	
Prompter		BNC (x2), Out: Loop-Through	
Input	AC In	(x1), AC 100 V to 240 V	
	Return In VBS1, VBS2	BNC (x2)	
	Return In SD1, SDI2	BNC (x2) HD-SDI, 1080: 59.94i, 50i, 29.97PsF, 25PsF, 23.98PsF, 720: 59.94p, 50p SD-SDI, 480 : 59.94i, 576i, 50i	
	HD Prompter In	BNC (x1)	
	SDI Out (SLOT-1) HD/SD	BNC (x4), HD-SDI/SD-SDI selectable	
	SDI Out (SLOT-2) 3G/4K/HD Trunk	BNC (x4) : 4K, 3G-SDI 1 to 4: SMPTE ST425-5, Level-A/B: 2160/59.94p, 2160/50p, 1080/59.94p, 1080/50p, 4K, 12G-SDI 1, 2: SMPTE ST2082-1: 2160/59.94p, 2160/50p, HD/3G-SDI: SMPTE ST425-1: 1080/59.94p, 1080/50p, HD-SDI 3, 4: SMPTE ST292-1, HD Trunk 1080/59.94i, 1080/50i, 4K/3G/HD Trunk: Selectable	
	VBS1, 2	BNC (x2)	
	Pix	BNC (x1)	
	Sync	BNC (x1), HD SYNC/SD SYNC selectable	
	Audio Out CH-1, CH-2	XLR-type 3-pin, male (x2), 0/-20 dBu	
Supplied Accessories	Supplied Accessories	Tally Number Plate 1 Set (0 to 9), Operating Instructions Camera Operation Manual CD-ROM (1), Operation Guide (1), Warranty booklet (1)	

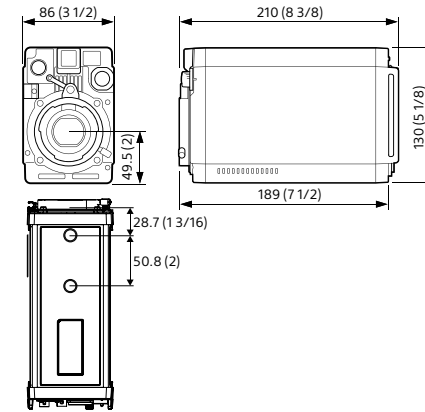
*1 The values for dimensions are approximate and excluding the protrusions.
*2 Fasten the ground terminal of local power supply device of camera head to earth as CCU side.

Dimensions

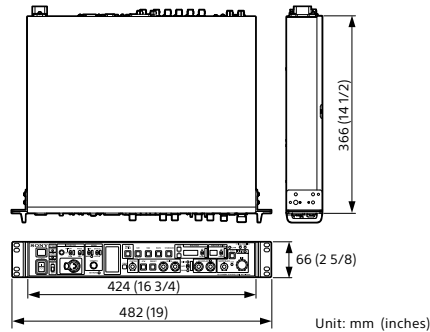
HXC-FB80



HXC-P70



HXCU-FB80



Unit: mm (inches)

Optional Accessories

 HDVF-L750 7-inch*1 LCD Color Viewfinder	 HDVF-L770*2 7-inch*1 LCD Color Viewfinder	 HDVF-EL75*2 7.4-inch*1 OLED Color Viewfinder	 HDVF-EL20 OLED 0.7-inch*1 Color HD viewfinder	 HDVF-EL30 OLED 0.7-inch*1 Color Full HD viewfinder with 3.5-inch*1 sub-LCD	 HDVF-L10 LCD Color Viewfinder
 CAC-12 Mic Holder	 ECM-678/674/673 Shotgun Electret Condenser Microphone	 AC-DN2B AC Adaptor	 AC-DN10 AC Adaptor	 RCP-1000/1001 Remote Control Panel	 RCP-1500/1501/1530 Remote Control Panel
 RM-B170 Remote Control Unit	 CCFN-25/50/100/150/200/250 Hybrid-type Optical Fiber Cable	 CCFN-JC1 Neutrik Cable Coupler	 MSU-1000 Master Setup Unit	 MSU-1500 Master Setup Unit	
 HXCU-FP2 CCU Control Panel (for HXCU-TX70)	 CNA-1 Camera Control Network Adaptor	 HXCU-FB70 Optical Fiber Camera Control Unit	 HXCE-FB70 Power Supply Extension Unit	 CA-TX70 Digital Triax Camera Adaptor	 HXCU-TX70 Triax Cable Camera Control Unit
 BVM-X300 BVM-X300 30-inch*1 OLED 4K HDR Master Monitor	 PVM-X550 55-inch*1 OLED 4K HDR Picture Monitor	 BVM-E171 17-inch*1 OLED Master Monitor	 LMD-A240/A220/ A170 LCD Picture Monitor	 LMD-B240/B170 LCD Picture Monitor	
 HDRC-4000 HDR Production Converter Unit	 VCT-14 Tripod Adaptor	 CBK-SP01 Soft Shoulder Pad	 HKC-LC01 LEMO 3K.93C Connector for HXC-FB75	 HKC-LC02 LEMO 3K.93C Connector for HXCU-FB70, HXCE-FB70	 HXC-RCP5 Remote Control Software for Windows 7, 8.1, 10
 J-712-156-0A SONY Camera Test Charts	 HXC-CSM10 Camera System Management Software	 MS-15 Canon Semi-Servo Control Kit (Focus and Zoom)			

*1 Viewable area measured diagonally

*2 For mounting of the viewfinder, please contact your nearest Sony or dealer's office.

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