HDC-2000B

3G double-speed multiformat
HD studio system camera (black)

Overview

Preliminary information

The HDC-2000 3G double-speed multi format studio system camera incorporates Sony's advanced technologies for studio cameras. Three 2/3-inch Progressive IT CCDs and Digital Signal Processing (DSP) LSI with 16 bit A/D converter provides amazing picture quality with very little noise and high dynamic range.

3G capable, 3D and double speed slow motion capture

The HDC-2000 features 3G transmission and has multi-format capability, from 1080/100i and 720/100p (double speed slow motion) to 1080/50p, as well as a wide range of other HD formats including 1080/50i, 720/50p,1080/25p and 1080/24p. The camera also provides 3D production capabilities with dual camera transmission via a single hybrid fibre cable.

Features

High picture quality and high performance
The HDC-2000 features a 2/3-type wide Progressive IT CCD for 2,200,000 pixels and a signal processing LSI, both newly developed to help achieve a high level of image quality via improved S/N, high resolution, and low smear compared to previous models. A 16-bit AD converter allows for optimal picture quality and enhanced black reproduction.

Slow motion via 2x speed recording

1080/50i-59.94i and 720/50P-59.94P formats are supported, as well as 1080/23.98PsF-24PsF-25PsF-29.97PsF and 1080/ 50P-59.94P progressive formats, and 1080/100i-119.88i and 720/100P-119.88P slow-motion 2x speed recording formats.

Standard 3G optical digital transmission unit

3G optical digital transmission of signals between the camera and camera control unit (CCU) is included and allows the following kinds of video signal transmission and system configurations:

- 1080/50P-60P progressive video signal transmission
- Transmission of 2x speed recording signals such as 1080/100i-119.88i for production of slow-motion video
- Transmission of HD prompter, HD TRUNK, and network TRUNK signals that utilize empty bands during 1080/50i-60i and 720/50P-60P operation
- Dual camera system for transmitting video signals from a second HD camera to two CCUs using just one optical fibre/multi-cable
- Sub-camera system for transmitting video signals from both an HDC2000 and another sub-camera— such as the HDC-P1— using just one optical fibre/multi-cable and outputting their signals from one CCU

Adaptive-matrix colour-reproduction function

This function accurately controls calculation factors for performing accurate colour conversion when shooting. This makes precise colour conversion possible even when shooting

under conditions that would otherwise exceed the colour conversion range of traditional matrix functions, such as under strong monochromatic blue light sources.

Multi-matrix colour correction for matching multiple cameras

In addition to the standard 6-axis matrix function, the camera has a multi-matrix function that permits you to adjust the hue and chroma for colour components in 16-axis directions independently. This is quite useful in colour matching among multiple cameras.

Knee and low-key saturation for strong and low-key lighting

Change of hue and decrease in chroma that occur in highlighted areas can be compensated. This enables reproduction of natural skin tones under strong lighting. Saturation in low-key zones can be compensated. Thus, compensation for colour reproduction in all zones is enabled in combination with matrix colour compensation and knee saturation functions.

Selection of multiple gamma tables

Seven types of standard and 4 types of hyper gamma tables are provided with this camera. The hyper gamma values enable cinema-like image creations with wide dynamic range, which are different from those achieved with conventional video gamma. Gamma tables created with CvpFileEditor™ can be saved to a "Memory Stick", or registered to HDC-2000 from the MSU-1000/1500 or RCP-1500 series.

Versatile detail control functions

A skin-tone detail function/Natural skin detail function allows control (emphasis or suppression) of the detail level for specific hues or chroma areas in the image by creating a detail gate signal from colour components of your specified hue, such as skin tones. The detail levels of three kinds of hues can be adjusted

independently at the same time. The HDC-2000 also features the natural skin detail function, which allows for adjustment of the detail gate signal, allowing even more vivid distinction of areas like skin that you want to make smooth while selectively keeping areas like eyebrows that don't require smoothing.

Numerous viewfinder functions

Along with items such as operation messages, a zebra pattern, a safety-zone marker, and a centre marker, camera settings may also be displayed on the viewfinder screen. Furthermore, there are other indicators arranged above and below the viewfinder, such as a tally lampand a warning indicator to tell you that one or more settings are other than standard. Selections and settings for viewfinder display items, a safety-zone marker or centre marker, screen size marker, etc. can be made quickly and easily using setup menus displayed on the viewfinder screen or an external monitor. Assignable switches for operating the viewfinder are located on the rear panel of the camera. These switches are linked to viewfinder assignable switches, such as those featured on HDVF-EL70, and allow for using the camera's buttons to perform functions like image zooming within the viewfinder.

Wide variety of input/output interfaces

In addition to 3G/HD/SD-SDI output and HD/SD-SDI input, the HDC-2000 features a wide variety of input/output interfaces, including Network TRUNK function, HD TRUNK function and HD prompter function.

User-friendly operation

Featuring a stylish exterior with a low overall height, the viewfinder's position is kept as low as possible, bringing it closer to the optical axis of the lens. The camera also has a switch to which various functions can be assigned on the rear panel. You can activate your desired function, such as electronic colour-temperature conversion, instantly when shooting by assigning it to the switch in advance.

USB connector

Connect a USB drive to the USB connector to save and load setup menu setting data.

Function for prevention of electrical shock

When the power connection is unsafe, this shuts off the power supply from the connected Camera Control Unit.

Specifications

General	
Power requirements	240 V AC, 1.7 A (max.), 180 V DC, 0.9 A (max.), 12 V DC, 10 A (max.)
Operating temperature	-20 °C to +45 °C (-4 °F to +113 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Mass	21 kg (46 lb 5 oz)

Camera	
Pickup device	3-chip 2/3-inch type CCD
Effective picture elements (H x V)	1920 x 1080
Signal format	1080/50i, 59.94i, 23.98p, 24p, 25p, 29.97p 1080/50p, 59.94p, 720/50p, 59.94p,

	1080/100i, 119.88i, 720/100p,119.88p
Spectrum system	F1.4 prism
Lens mount	Sony hanger mount
Built-in filters CC	A: CROSS, B: 3200K, C: 4300K, D: 6300K, E: 8000K
Built-in filters ND	1: CLEAR, 2: 1/4ND, 3: 1/8ND, 4: 1/16ND, 5: 1/64ND
Sensitivity (at 2000 lx, 3200K, 89.9% reflectance)	F11 (1080/50i), F10 (1080/59.94i)
Signal-to-noise ratio (1080i, typical)	-60 dB/-64 dB (w/NS max.)
Horizontal resolution (1080i)	1000 TV lines (at center)
Shutter speed	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (50i) 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (59.94i) 1/32, 1/48, 1/96, 1/100, 1/125,1/250, 1/500, 1/1000, 1/2000 sec (23.98p/24p) 1/33, 1/50, 1/100, 1/125, 1/250,

selection	1/500, 1/1000, 1/2000 sec (25p) 1/40, 1/60, 1/100, 1/120, 1/125, 1/250, /500, 1/1000, 1/2000 sec (29.97p) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (50p) 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (59.94p)
Modulation depth (1080i, typical)	Y: 50% at 27.5 MHz (800 TV lines with typical lens), Pb/Pr: 80% at 12 MHz

Input/output connectors

Audio input (CH1)	XLR-3-pin (female) (x1), mic or line selectable
Audio input (CH2)	XLR-3-pin (female) (x1), AES/EBU or mic or line selectable
Return control input	6-pin (x1)
Prompter 1	BNC (x1), 1.0 Vp-p, 75 Ω
Prompter 2	BNC (x1), 1.0 Vp-p, 75 Ω
DC input	XLR-4-pin (x1), 10.5 to 17 V DC
	4-pin (x1), 10.5 to 17 V DC, 1.5 A

DC output	(max.)
Test output	BNC (x1), 1.0 Vp-p, 75 Ω
SDI 1 output (with embedded audio)	BNC (x1) 3G-SDI, HD-SDI
SDI 2 output	BNC (x1) HD-SDI
SDI-MONI	BNC (x1) HD-SDI or SD-SDI selectable
CCU	Electro-optical connector (x1)
Tracker	10-pin (x1)
Crane	12-pin (x1)
Intercom 1	XLR-5-pin (female) (x1)
Intercom 2	XLR-5-pin (female) (x1)
Remote	8-pin (x1)
Lens	36-pin (x1)
Viewfinder	D-sub 25-pin (x1)

Supplied accessories

	Angle adjustment brackets (2), Front cover (1), Number plates for side panel (2

sets),
Number plates for up-tally lamp (1
set),
Cable clamp (2),
Operation manual (1)

Related
products

BVM-F170A

16.5-inch TRIMASTER EL™ OLED reference monitor with wide viewing angle

BVM-F250A

24.5-inch TRIMASTER EL™ OLED reference monitor with wide viewing angle

HKCU-SM100

CCU extension adaptor

PVM-A250 v2.0

25-inch TRIMASTER EL™ OLED high grade picture monitor

PVM-A170 v2.0

17-inch TRIMASTER EL™ OLED high grade picture monitor

HDCU-3100

IP enabled next generation Camera Control Unit

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