

HDC-3100

Three 2/3-inch CMOS sensors
portable system camera for fibre
operation



NETWORKED LIVE

Overview

Raising the standard in creative flexibility

The HDC-3100 system camera brings new levels of creative flexibility and portability to live production environments. Enjoy premium HD pictures plus the convenience of optical fibre transmission.

Next generation imaging

Capture premium pictures with the world's first 2/3-inch CMOS sensor with global shutter technology that eliminates the 'jello effect' and banding noise. This allows the HDC-3100 to capture pristine images with low noise and excellent sensitivity. (F12 at 1080/59.94p or F13 at 1080/50p.)

More format flexibility (4K/HD)

The HDC-3100 can output 3G-SDI signals in a range of formats right up to 1080/50p, with 4K available via the CCU's 12G-SDI and Quad 3G-SDI interfaces. So you can benefit from maximum production convenience – and your viewers can enjoy premium picture quality.

Optical fibre transmission

The HDC-3100 supports optical fibre transmission as standard, with a SMPTE-standard interface for connection with associated HDCU-3100/HDCU-2000 series Camera Control Units.

Get the look

Broaden your creative possibilities and achieve exactly the look you want in any shooting situation. Low-key Saturation ensures rich, vibrant colours in low-light areas. Powerful gamma functions give absolute control over fine-tuning tonal values, contrast and detail.

Simultaneous HDR and SDR production

The HDC-3100 can capture High Dynamic Range images, supporting Sony's SR Live workflow for simultaneous HDR/SDR production with reduced inventory requirements.

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

Features

The go anywhere camera

The magnesium alloy body of the HDC-3100 offers exceptional lightness and strength. Sure, stable handling is enhanced by the camera's low centre of gravity, easily adjustable shoulder pad and widened hand grip area. Also ideal for handheld operation, HDC series studio cameras offer exceptional user ergonomics in a wide range of studio and field-based production environments.

Simple solution for IP remote production

Adding the optional HDCE-TX30 IP camera extension adaptor allows the HDC-3100 to output ST 2110 signals directly without requiring a separate CCU (camera control unit), simplifying connection to an IP-based remote production system.

Remote control of ND/CC

An Neutral Density (ND) /Colour Correction (CC) can be controlled from a remote control panel (RCP), master setup unit(MSU), or directly from the camera head.

Seamless integration

Backwards compatibility with Sony's industry-acclaimed HDC-

2000 series system cameras simplifies smooth integration with your current live production infrastructures, including cameras and CCUs.

Rich focus assist functions

The Viewfinder Detail function adds dedicated image-enhancing edge signals directly to the viewfinder, helping the operator to focus quickly and precisely in any shooting situation. It's complemented by a Focus Assist Indicator and advanced Focus Position Meter function.

Servo controlled ND filter

An optical Neutral Density (ND) filter wheel opens up wider creative possibilities. The filter can be controlled from a remote control panel, master setup unit, or directly from the camera head.

Specifications

General

Power requirements	AC 240 V, 1.05 A (max.), DC 240 V, 1.05 A (max.)
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Operating temperature	.20°C to +45°C (.4°F to 113°F)
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Storage temperature	.20°C to +60°C (.4°F to 140°F)
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Mass	Approx. 4.8 kg (10 lb 9 oz)
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Imager

Imager	2/3 inch type CMOS sensor with
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global shutter

Method	3-CMOS, RGB
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Electrical characteristics

Sensitivity	F12 with 1080/59.94i F13 with 1080/50i (at 2,000 lx with 89.9% reflectance)
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Signal-to-noise ratio	-62 dB
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Geometric distortion	Negligible (not including lens distortion)
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Optical system specifications

Spectrum system	F1.4 prism
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Built-in filters	1: CLEAR, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND
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Input/output connectors

CCU	Electro-optical connector (LEMO 3K.93C connector) (x1)
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LENS	12-pin (x1)
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VF	20-pin (x1)
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MIC 1 IN	XLR 3-pin, female (x1)
AUDIO IN CH1, CH2	XLR 3-pin, female (x1 each) AUDIO switch for MIC: -60 dBu (can be selected up to -20 dBu in the menu), balanced AUDIO switch for LINE: 0 dBu, balanced
INTERCOM 1, INTERCOM 2	XLR 5-pin, female (x1)
EARPHONE	4-pole mini jack (x1), (2-pole mono, 3-pole stereo, 4-pole CTIA standard, 4-pole OMTP standard)
DC IN	XLR 4-pin (x1), DC 10.5 to 17 V
DC OUT	4-pin (x1), DC 10.5 to 17 V, max. 0.5 A* ¹ , 2-pin (x1), DC 10.5 to 17 V, Max. 2.5 A* ¹
SDI 1	BNC (x1)
SDI 2	No
SDI MONI	BNC (x1)
TEST OUT	BNC (x1)
	BNC (x1) PROMPTER 1 Vp-p, 75 Ω GENLOCK HD: SMPTE ST274, tri-

PROMPTER/GENLOCK	level sync, 0.6 Vp-p, 75 Ω, SD: Black burst (NTSC: 0.286 Vp-p, 75 Ω/PAL: 0.3 Vp-p, 75 Ω)
PROMPTER2	No
RET CTRL	6-pin (x1)
REMOTE	8-pin (x1)
TRACKER	12-pin (x1)
CRANE	No
USB	USB 2.0 Type A 4-pin (x1) (for connecting USB drive)
Supplied accessories	Before Using This Unit (1), Operating Instructions (CD-ROM) (1), Cable clamp belt (1 set), Screws (+B3×8) (2), Attached label (1), Camera number label (1)

Note

*1 This may be limited by the imposed load or inputs.

In cases where a HDC3100 Series camera's built-in Filter does not fully reduce the moire caused by

Optical Low Pass Filter some LED walls, the optional Optical Low Pass Filter (OLP) will help further reduce the moire effect (Part number; 1-856-731-22).

Related products



RCP-3100

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



HDCU-3500

IP-ready Camera Control Unit (CCU) for HDC-3500 4K/HD system camera



HVC-PRV50 / HVC-PRV50M / HVC-PRV50W

Software licenses for shooting and transmission of Progressive video



HDCU-3170

IP capable Triax Camera Control Unit



RCP-1500

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



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)



HDVF-EL30

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



HDVF-EL75



HVC-PSF50 /



HDCU-3100



HDCU-5000

7.4-inch OLED
Viewfinder for
portable cameras

HZC- PSF50M / HZC- PSF50W

Software licenses for
shooting and
transmission of PsF
format video



IP enabled next
generation Camera
Control Unit

Camera Control Unit
(CCU) for HDC-5500
and HDC-3500/3100
series system cameras

HKCU- REC50

Recording option for
HDCU-5000

HDCE- TX30

IP camera extension
adaptor for remote
live production
(transmitter)

HDCE- RX30

IP CCU extension
adaptor for remote
live production
(receiver)

HZCU- UHD35

4K HDR software
license for HDCU-3500



HZCE- UHD30

Software license for
4K IP output from
HDCE-TX30 IP camera
extension adaptor

HDRC- 4000

HDR Production
Converter Unit

HZC- CSM10

Master Setup Unit
(MSU) PC Software

HZCE- JX50F / HZCE- JX50FM / HZCE- JX50FW

4K/HD JPEG XS
SOFTWARE



HZCE- JX50H / HZCE- JX50HM /

HZCE- JX50HW

HD JPEG XS
SOFTWARE

Gallery

