SONY

HDCU-3100

IP enabled next generation Camera Control Unit

NETWORKED LIVE

Overview

Add IP production capabilities to system cameras

The HDCU-3100 camera control unit adds IP capabilities to our full range of broadcast and studio system cameras, from the flagship 4K HDC-4300 to the HDC-2000/1700 series and HSC fibre system cameras.

Connecting to compatible cameras via optical fibre cable, the compact HDCU-3100 supplies power to the camera, performs signal processing and provides an interface with external equipment.

Combined with the HKCU-SFP30 option board, designed for the SMPTE ST 2110 Professional Media Over Managed IP Network suite of standards, the HDCU-3100 camera control unit supports essential functionalities required for live IP production including tally, intercom and return.

By installing the optional 4K/HDR Processor Board HKCU-UHD30, the HDCU-3100 can output 4K signals when connected with an HDC-Series System Camera. In addition, adding the optional 12G-SDI Interface Kit HKCU-SDI30 allows transfer of 4K signals through a single BNC cable.

*1 For more details on the JT-NM Tested program in March 2020

and test results, please go to https://jt-nm.org/jt-nm_tested.
*2 For more details on the JT-NM Tested program at IBC 2019 and its test results please see http://jt-nm.org/jt-nm_tested.

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

Features

Compact and versatile
The 1.5 RU-size Camera Control Unit creates a standardised 19-inch rack system that is ideal for space-limited production areas.

IP functionality for live production
The optional HKCU-SFP30 interface kit adds essential functionality required for IP live production such as Tally, Intercom and Return.

Eight built-in SDI outputs
The HDCU-3100 is equipped with eight built-in SDI outputs, including four 3G-SDI outputs. A built-in USB connector slot and support of 12G-SDI will both be available in future updates.

4K output option
By installing an optional 4K/HDR Processor Board HKCU-UHD30, the HDCU-3100 can output 4K signals when connected to an HDC-Series System Camera. In addition the HDCU-3100 with an optional 12G-SDI Interface Kit HKCU-SDI30 can transfer 4K signals through a single BNC cable.

High quality long distance signal transmission
The optical fibre transmission system maintains high picture quality across cable runs of up to 2000 m. Combined with the HKCU-SM30 interface kit, the compact HDCU-3100 can be directly connected on Single Mode Fibre (SMF) for long distance transmission up to 10Km, making it ideal for space-limited operations like OB Trucks.

MENU setting from web browser

The CCU support menu control from web browser. The status monitoring of multiple CCU, setting file import/export and remote firmware update enhance the efficiency and convenience of the operation.

Specifications

General	
Power requirements	100 V to 240 V AC, 50/60 Hz
Current consumption	4.5 A (max.)
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature	−20 °C to +60 °C (−4 °F to +140 °F)
Mass	Approx. 7.3 kg (16 lb. 1.5 oz.)

Input/output connectors	
CAMERA FIBER	Optical fiber connector (x1)
INTERCOM/TALLY/IO PORT	D-sub 50-pin connector (x1) INTERCOM (PROD/ENG), 4 W: 0 dBu, RTS: 0 dBu, CC: −14 dBu PGM, 2 systems, 0dBu/−20dBu TALLY (R, G, Y) FLAG
RCP/CNU	8-pin multi-connector (x1)

TRUNK	12-pin (x1)
LAN-COM	8-pin (x1)
NETWORK TRUNK	8-pin (x1)
SDI I/O 1 to 4	3G/HD/SD SDI I/O BNC (x4) 3G-SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 Ω, 2.970 Gbps/2.967 Gbps HD-SDI: SMPTE ST292, 0.8 Vp-p, 75 Ω, 1.485 Gbps/1.4835 Gbps SD-SDI: SMPTE ST259, 0.8 Vp-p, 75 Ω, 270Mbps 3G-SDI/HD-SDI/SD-SDI, character signal selectable
REFERENCE IN/OUT	BNC (x2), loop-through output HD: SMPTE ST274, tri-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) or NTSC 10F-BB

Input connectors

AC IN	100 V to 240 V AC (x1)
	BNC (x4) 3G-SDI: SMPTE ST424/425, 2.970

SDI RET 1 to 4	Gbps/2.967 Gbps HD-SDI: SMPTE ST292, 1.485 Gbps/1.4835 Gbps SD-SDI: SMPTE ST259, 270 Mbps
PROMPTER 1 PROMPTER 2/VBS-RET	BNC (x2), loop-through output during 1CH mode, terminate internally at 75 Ω during 2CH mode, analog signal, 1.0 Vp-p, 75 Ω

Output connectors

AUDIO OUT CH1, CH2	XLR 3-pin, male (x2), 0dBu/−20 dBu/+4 dBu
CHARACTER/ABS/EBU	BNC (x1), VBS, 1 Vp-p, 75 Ω HD SYNC: BTA-S001, tri-level sync, 0.6 Vp-p, 75 Ω SD SYNC: composite sync, 0.3 Vp-p, 75 Ω VBS/HD SYNC/SD SYNC selectable
SDI OUT 1 to 4	3G/HD/SD SDI OUTPUT BNC (x4) 3G-SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 Ω, 2.970 Gbps/2.967 Gbps HD-SDI: SMPTE ST292, 0.8 Vp-p, 75 Ω, 1.485 Gbps/1.4835 Gbps

SD-SDI: SMPTE ST259, 0.8 Vp-p, 75 Ω, 270 Mbps
3G-SDI/HD-SDI/SD-SDI, character signal selectable

Supplied accessories

Supplied accessories	Number plates (1 set), Before Using this Unit (1), Operating Instructions (CD-ROM) (1)

Optional accessories

Optional accessories	United States and Canada: Power cord set (1-551-812-XX) Other areas: Power cord set (1-782-929-XX) United States and Canada: Plug holder B (2-990-242-01) Other areas: Plug holder C (3-613-640-01) CCA-5-3 Connection Cable (3 meters), CCA-5-10 Connection Cable (10 meters) Service Manual

Related products

HDC-2000B

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

HDC-2000W

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

HDC-2500

3G double-speed multi format HD system camera

HDC-2400

3G multi format HD system camera

HDC-1700

Multi format HD portable system camera

BPU-4000

4K base band processor unit

BPU-4500A

4K/HD baseband processor unit for IP network production

MSU-1000

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

RCP-1000

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

HZCU-CNFG50

ember+ protocol license for HDCU-5500, 3500, 3170 and 3100 camera control units

HZCU-SNMP50

SNMP Agent license for HDCU-5500, 3500, 3170 and HDCU-3100 camera control unit

HDC-3100

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

HDC-3500

Three 2/3-inch 4K CMOS sensors portable system camera for fibre operation

HKCU-SDI30

12G-SDI Interface Kit

HKCU-SM30

Single Mode Fibre Extension Kit

HKCU-UHD30

4K HDR Processor Board

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

HDCE-TX30

IP camera extension adaptor for remote live production (transmitter)

RCP-3500

Remote-control panel for HDC/HSC/HXC series cameras

RCP-3501

Remote-control panel for HDC/HSC/HXC series cameras

MSU-3000

Master setup unit, multi camera remote control panel for system cameras (horizontal type)

MSU-3500

Master setup unit, multi camera remote control panel for system cameras (vertical type)

HDC-3200

2/3-inch 4K 3CMOS Camera System

Gallery