

HDCU-5000

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



NETWORKED LIVE

Overview

The HDCU-5000 is a full 19" rack size Camera Control Unit (CCU) with dual transmission capability, offering UHB (Ultra High Bitrate) transmission for the HDC-5500 system camera and 3G transmission for HDC-3500/3100 series system cameras. This choice of transmission options broadens production flexibility for studio, outside broadcast (OB) and sports applications.

The HDCU-5000 is equipped with a range of built-in interfaces including 12G-SDI/3G-SDI/HD-SDI outputs and 12G-SDI/3G-SDI/HD-SDI return inputs.

Providing power to the HDC-5500 camera head, the optical fibre transmission system maintains uncompromised picture quality over cable runs of up to 4,000 metres*.

* When supplying power to the camera via optical fibre cable. Maximum cable length varies according to the camera system configuration, lens type, viewfinder type, size of optical fibre cable and number of cable connectors.

*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.

Features

Versatile built-in interfaces

The HDCU-5000 features a wide range of built-in interfaces, including 12G-SDI/3G-SDI/HD-SDI outputs and 12G-SDI/3G-SDI/HD-SDI return inputs. The CCU offers four 12G-SDI outputs and a maximum of eight 3G-SDI outputs as standard. Adding the optional HKCU-SDI50 expands this to a maximum of eight 12G-SDI outputs.

LAN interface for network control

The HDCU-5000 includes a built-in LAN interface (10BASE-T/100BASE-TX). This allows the camera to be controlled over a network, and this interface can also be used for an IP TALLY function.

Ultra High Bitrate transmission

The HDCU-5000 supports UHB (Ultra High Bitrate) transmission. This enables 4K 2x slow motion, or simultaneous transmission of two 4K pictures (main camera plus other camera, e.g. a POV picture input to trunk line).

Long distance transmission and utility out via HDLA

The CCU's high power supply allows HDC-5500 series cameras to operate with the HDLA-1500/HDLA-1505/HDLA-1507 HD large lens adaptors over longer distances. HDLA utility out is available with HDCU-5000.

Extensive expansion options

The HDCU-5000 offers four types of interface expansion option. The HKCU-SDI50 provides four additional 12G-SDI interfaces. The HKCU-SFP50 provides an ST 2110 IP interface (including IP intercom function). The HKCU-SM50 provide a single mode fibre connection capability between the camera and CCU. The HKCU-REC50 adds a CCU internal recording capability, allowing up to 4 hours recording time at 4K XAVC-I C300.

Gigabit Ethernet trunk line

The HDCU-5000 CCU features a single channel trunk line (1Gb Ethernet) to support easy data transmission.

Multi-format functionality

The HDCU-5000 offers multi-format support for 4K up to 2x, HD HFR up to 8x, PsF format, 1080-4:4:4-RGB (@23.98PsF, 24PsF, 25PsF, 29.97PsF).

Recording and real-time network transfer

Adding the HKCU-REC50 internal recording option allows the HDCU-5000 CCU to record the camera's live feed (up to 4 hours recording time at 4K XAVC-I C300). Footage can be transferred in real time to a connected USB solid state drive or NAS (Network Attached Storage) device while recording takes place. As soon as shooting is finished, the file is immediately available on the attached storage device.

Specifications

General

Power requirements	100/120/220 V to 240 V AC, 50/60 Hz (For details about switching the voltage, contact a Sony service or sales representative.)
Current consumption	7 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)
Weight	Approx. 19.5 kg (43 lb)

Input/output connectors

CAMERA	Optical fiber connector (2)
INTERCOM/TALLY/IO PORT	D-sub 50-pin connector (M2.6) (1) INTERCOM (PROD/ENG), 4 W: 0 dBu, RTS: 0 dBu, CC: -14 dBu PGM, 3 systems, 0 dBu/-20 dBu 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)

UHD SDI	UHD SDI A, B : 12G/6G/3G/HD SDI OUTPUT BNC type (2) 12G SDI: SMPTE ST2082, 0.8 Vp-p, 75 ohms, 11.88 Gbps/11.868 Gbps 6G SDI: SMPTE ST2081, 0.8 Vp-p, 75 ohms, 5.940 Gbps/5.934 Gbps 3G SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 ohms, 2.970 Gbps/2.967 Gbps HD SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps
UHD SDI	UHD SDI C, D : 12G/6G/3G/HD SDI I/O BNC type (2) 12G SDI: SMPTE ST2082, 0.8 Vp-p, 75 ohms, 11.88 Gbps/11.868 Gbps 6G SDI: SMPTE ST2081, 0.8 Vp-p, 75 ohms, 5.940 Gbps/5.934 Gbps 3G SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 ohms, 2.970 Gbps/2.967 Gbps HD SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps
SDI OUT	SDI OUT 1 to 4 : 3G/HD/SD SDI OUTPUT BNC type (4) 3G SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 ohms, 2.970 Gbps/2.967 Gbps HD SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps SD SDI: SMPTE 259M, 0.8 Vp-p, 75 ohms, 270 Mbps
SDI I/O	SDI I/O 1 to 4 : 3G/HD/SD SDI I/O BNC type (4) 3G SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 ohms, 2.970 Gbps/2.967 Gbps HD SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps SD SDI: SMPTE 259M, 0.8 Vp-p, 75 ohms, 270 Mbps
SDI RET	SDI RET 1 to 4: BNC type (4) 3G SDI: SMPTE ST424/425, 2.970 Gbps/2.967 Gbps HD SDI: SMPTE ST292, 1.485 Gbps/1.4835 Gbps SD SDI: SMPTE 259M, 270 Mbps
REFERENCE IN/OUT	BNC type (2), loop-through output, HD: 3-level sync, 0.6 Vp-p, 75 Ω, SD: 2-level sync, 0.3 Vp-p, 75 Ω

Input/output connectors

PROMPTER 1 PROMPTER 2/VBS-RET	BNC type (2), terminated internally at 75 ohms during 2CH mode, analog signal, 1.0 Vp-p, 75 ohms
AUDIO OUT	AUDIO OUT CH1, CH2 : XLR 3-pin, male (2), 0 dBu/-20 dBu/ +4 dBu
CHARACTER / SYNC	VBS: 1 Vp-p, 75 Ω , HD: 3-level sync, 0.6 Vp-p, 75 Ω , SD: 2-level sync, 0.3 Vp-p, 75 Ω
AES/EBU	AES/EBU: 0.5 Vp-p, 75 Ω
AC IN	100/120/220 V to 240 V AC (1) (For details about switching the voltage, contact a Sony service or sales representative.)

Supplied accessories

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



HDC-1700

Multi format HD portable system camera



HDC-2500

3G double-speed multi format HD system camera



HDC-3100

2/3-type 3-CMOS sensor portable system camera for fibre operation



HDC-3500

2/3-type 4K 3-CMOS sensor portable system camera with HD 4x HFR capability



HDC-5500

2/3-type 4K 3-CMOS sensor portable system camera with 4K 4x HFR capability



HDLA-1500

HD Large Lens Adaptor



HDLA-1505

HD Large Lens Adaptor



PWA-RCT1

Recording Control Software for PWS-4500, HKCU-REC55 and HKCU-REC50



HKCU-REC50

Recording option for HDCU-5000



HZCU-UHDR50

4K Recording License for HDCU-5000/5500/3500



PWAL-RCT50

CCU recording control option for PWA-RCT1



HZCU-DHR50

DNxHD Codec License for HDCU-5000, HDCU-5500 and HDCU-3500 camera control units



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)



HDCE-TX50

IP camera extension adaptor for remote live production (transmitter)



HDCE-RX50

IP CCU extension adaptor for remote live production (receiver)



HDC-F5500

Super 35mm 4K CMOS Camera System



HKC-VND50

Variable ND filter unit



HKCU-UHF50

4K 4x processor board for HDCU-5000



CNA-2

Camera Control Network Adapter



HDC-5500R

2/3-type 4K 3-CMOS sensor portable system camera with 4K 4x HFR capability



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