SONY

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 transfered 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)

Input/output connectors	
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 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)

Related products

HDC-1700

Multi format HD portable system camera

HDC-2500

3G double-speed multi format HD system camera

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

HDC-5500

High performance three 2/3-inch 4K CMOS sensor portable system camera with direct 4K output

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

Gallery