

## HDC-5500

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



**NETWORKED LIVE**

### Overview

#### **A new benchmark in creative flexibility**

The HDC-5500 system camera brings new levels of image quality, portability and creative flexibility to live production environments. Enjoy premium 4K/HD/HDR picture quality – and anticipate tomorrow's production needs while maintaining full compatibility with today's workflows and system hardware.

#### **Direct 4K output**

A newly-developed on-board signal processor allows the HDC-5500 to output 4K signals directly without the addition of a dedicated external baseband processor unit, saving rack space in the confines of an OB vehicle or studio environment. It can also output 4K signals directly via 12G-SDI. Thanks to an all-new 4K baseband transmission system, the compact camera is ideal for use in steadicam and wireless camera systems

#### **Impressive sensitivity and colour reproduction**

Capture premium pictures with Sony's advanced 2/3-inch 4K CMOS sensor with global shutter technology that eliminates the 'jello effect' and banding noise. This allows the HDC-5500 to capture pristine 4K images with exceptionally low noise (-62dB), impressive sensitivity (F10 at 1080/59.94p or F11 at 1080/50p) and high dynamic range, while achieving the ITU-R BT.2020 broadcast standard wide colour space. It's teamed with a specially developed LSI Digital Signal Processor that fully realises

the extraordinary imaging power of this new sensor.

## **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-5500 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

### **Easy transmission change**

The HDC-5500 supports optical fibre transmission as standard with ultra high bitrate (UHB) transmission. With an optional side panel, HDC-5500 is compatible with HDCU-3500/3100/2000 series Camera Control Units. It is quick and easy to reconfigure the camera at any time - for fibre, third-generation digital triax or wireless operation - with a choice of optional outside panels.

### **Wider workflow options**

Combining exceptional lightness and strength, the magnesium alloy body is complemented by carbon fibre reinforced plastic (CFRP) outside panels. 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.

### **The go anywhere camera**

Combining exceptional lightness and strength, the magnesium alloy body is complemented by carbon fibre reinforced plastic (CFRP) outside panels. 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.

## **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.

## **Multi-speed slo-motion acquisition**

Adding an optional license enables high frame-rate (HFR) HD image capture at 8x, 6x, 4x, 3x, and 2x. Simultaneous capture of high dynamic range (HDR) images allows simultaneous production of HDR and SDR at an SR-Live event.

## **ARIA: Automatic Restoration of Illumination Attenuation**

F drop and peripheral light loss are unwanted physical phenomena especially in long-distance object shooting. Thanks to the newly developed ARIA function of HDC series, the impact on picture appearance is automatically compensated for by processing inside the camera for the supported lens\*.

\* Contact your Sony sales office or representative for details

## **Display camera number and tally**

Assigned camera number is indicated on the camera body by a graphical electronic paper display. Displayed information is updated automatically to reflect system changes. There's also an LED tally lamp beside the camera number display.

## **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 and CC filters

Dual optical filter wheels for Neutral Density (ND) and Colour Correction (CC)\* open up wider creative possibilities. Both filters can be controlled from a remote control panel, master setup unit, or directly from the camera head.

### Network TRUNK

Network TRUNK (via LAN port) allows high-speed data transmission between the camera and CCU at up to 1 Gbps to support configurability\* with IP-based products and systems.

\* Camera operating in fibre configuration.

### Recording and real-time network transfer

With the recording option HKCU-REC55, the HDCU-5500 can record the live feed inside CCU. The file can be transfered to USB SSD or network storage in real-time during recording. Therefore, when the shooting operation is finished, the file is already transferred to portable SSD or NAS.

## Specifications

| General               |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| Power requirements    | AC 240 V, 1.4 A (max.), DC 12 V, 9.5 A (max.), DC 240 V, 1.05 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 | Approx. 5.0 kg (11 lb 0.4 oz) (Unit only) |
|------|-------------------------------------------|

Imager

|        |                                               |
|--------|-----------------------------------------------|
| Imager | 2/3-inch type CMOS sensor with global shutter |
|--------|-----------------------------------------------|

|        |             |
|--------|-------------|
| Method | 3-CMOS, RGB |
|--------|-------------|

|                              |                                      |
|------------------------------|--------------------------------------|
| Effective resolution (H x V) | QFHD: 3840 × 2160<br>HD: 1920 × 1080 |
|------------------------------|--------------------------------------|

Electrical characteristics

|             |                                                                                   |
|-------------|-----------------------------------------------------------------------------------|
| Sensitivity | F10 with 1080/59.94p<br>F11 with 1080/50p<br>(at 2,000 lx with 89.9% reflectance) |
|-------------|-----------------------------------------------------------------------------------|

|                       |        |
|-----------------------|--------|
| Signal-to-noise ratio | -62 dB |
|-----------------------|--------|

|                      |                                            |
|----------------------|--------------------------------------------|
| Geometric distortion | Negligible (not including lens distortion) |
|----------------------|--------------------------------------------|

Optical system specifications

|                 |            |
|-----------------|------------|
| Spectrum system | F1.4 prism |
|-----------------|------------|

|                  |                                                                                                                                   |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Built-in filters | ND filters 1: CLEAR, 2: 1/4ND, 3: 1/8ND, 4: 1/16ND, 5: 1/64ND<br>CC filters A: Cross filter, B: 3200K (clear), C: 4300K, D: 6300K |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------|

## Input /output connectors

|                   |                                                                                                                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCU               | Optical / electrical multi connector (LEMO 3K.93C connector) (x1)                                                                                                                         |
| LENS              | 12-pin (x1)                                                                                                                                                                               |
| VF                | 20-pin (x1)                                                                                                                                                                               |
| MIC 1 IN          | XLR 3-pin, female (x1)                                                                                                                                                                    |
| AUDIO IN CH1, CH2 | XLR 3-pin, female (x1 each)<br>When AUDIO switch is set to MIC: – 60 dBu (can be selected up to –20 dBu by menu operation), balanced<br>When AUDIO switch is set to LINE: 0 dBu, balanced |
| INTERCOM 1        | XLR 5-pin, female (x1)                                                                                                                                                                    |
| INTERCOM 2        | XLR 5-pin, female (x1)                                                                                                                                                                    |
| EARPHONE          | 4-pole mini jack (x1), (3-pole stereo, 4-pole CTIA standard, 4-pole OMTP standard)                                                                                                        |

|                                          |                                                                                                                                                            |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DC IN XLR 4-pin (x1),<br>DC 10.5 to 17 V | 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 <sup>*1</sup><br>2-pin (x1), DC 10.5 to 17 V, Max. 2.5 A <sup>*1</sup>                                             |
| SDI 1                                    | BNC (x1)                                                                                                                                                   |
| SDI 2                                    | BNC (x1)                                                                                                                                                   |
| SDI 3                                    | BNC (x1)                                                                                                                                                   |
| SDI MONI                                 | BNC (x1)                                                                                                                                                   |
| TEST OUT                                 | BNC (x1)                                                                                                                                                   |
| PROMPTER /<br>GENLOCK                    | BNC (x1)<br>PROMPTER 1 Vp-p, 75 Ω<br>GENLOCK 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) |
| PROMPTER2                                | No                                                                                                                                                         |
| RET CTRL                                 | 6-pin (x1)                                                                                                                                                 |
| REMOTE                                   | 8-pin (x1)                                                                                                                                                 |
| TRACKER                                  | 12-pin (x1)                                                                                                                                                |

|               |                                                      |
|---------------|------------------------------------------------------|
| CRANE         | 12-pin (x1)                                          |
| USB           | USB 2.0 Type A 4-pin (x1) (for connecting USB drive) |
| NETWORK TRUNK | RJ-45 type 8-pin (x1)                                |

## Supplied accessories

Before Using This Unit (1),  
Operating Instructions (CD-ROM)  
(1), Cable clamp belt (1 set),  
Screws (+B3×8) (2), Attached label  
(1)

\*1

This may be limited by the  
imposed load or inputs.

## Related products



**HDCU-5500**  
IP-ready Camera Control Unit (CCU) for HDC-5500 4K/HD system camera



**HVC-PRV50 / HVC-PRV50M / HVC-PRV50W**



**HKC-WL50**  
Wireless transmission adaptor for HDC-5500 and HDC-3500



**HKC-TR37**  
Digital Triax Transmission Adaptor for HDC camera series

Software licenses for shooting and transmission of Progressive video



## 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-EL75

7.4-inch OLED Viewfinder for portable cameras



## HDVF-EL30

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



## HZC-PSF50 / HZC-PSF50M / HZC-PSF50W

Software licenses for shooting and transmission of PsF format video



## HZC-UG50 / HZC-UG50M / HZC-UG50W

Software licenses for shooting 1080/RGB 4:4:4 & User Gamma with HDC-5500/3500 series system camera



## HZC-DFR50 / HZC-DFR50M / HZC-DFR50W

Software licenses for shooting Dual Frame Rate 2x slow motion



## HDCU-5000

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



## HKCU-REC55

Recording option for HDCU-5500 and HDCU-3500 CCU



## HKCU-SDI50

12G-SDI interface kit for HDCU-5000 CCU



## PWA-RCT1

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



## HKCU- REC50

Recording option for  
HDCU-5000



## HZC- HFR50P

Portable HFR license  
for HDC-5500/HDC-  
P50



## HZC- UHD50P

Portable UHD/1080p  
license for HDC-  
5500/HDC-P50



## HZC- QFR50 / HZC- QFR50M / HZC- QFR50W

Max. HD 4x Slow  
motion with HDC-  
3500 system camera  
and others



## HZCE- UHD30

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



## HDRC- 4000

HDR Production  
Converter Unit



## HDCE- TX50

IP camera extension  
adaptor for remote  
live production  
(transmitter)



## HDCE- RX50

IP CCU extension  
adaptor for remote  
live production  
(receiver)



## HDLA- 3501

Large Lens Adaptor



## HDLA- 3505

Large Lens Adaptor



## 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



**HKC-  
VND50**

Variable ND filter unit



**HKCU-  
UHF50**

4K 4x processor  
board for HDCU-5000



**CNA-2**

Camera Control  
Network Adapter

## Gallery

