



HDC-1550R

Multi format HD Studio Camera
for Prestige Production

Heralding a New Era of HD Production

Pursuing the ultimate HD system for today and for tomorrow, Sony sets another milestone in the history of multi-format HD camera systems - the HDC-1550R - offering a broader choice of interlace and progressive formats, much greater picture quality, and enhanced operational flexibility.

The HDC-1550R incorporates a newly developed CCD imager and DSP LSI - two key devices that allow it to achieve ultimate picture performance in a variety of scanning modes. The CCD used in this camera can accommodate all popular interlace and progressive scan formats including 1080/50, 1080/24P as well as the highest-quality 720/50P images.

The HDC-1550R includes a triax cable interface, which permits simple integration with existing studio or outside broadcast infrastructure. At the base station, a triax-to-fibre convertor, the HDFX-100, allows connection to a standard HDCU-1000 or HDCU-1500 fibre optic base station.

Features

Power HAD FX CCD for high sensitivity

The HDC-1550R is equipped with a newly developed three 2/3-inch type 2.2-megapixel HD CCD. Based on Sony HAD sensor technology and the latest on-chip lens structure, this new CCD offers a high sensitivity of F11 at 2000 lx. In addition to this performance, a wide variety of capturing modes including 1080/50i, 60i, 1080/24P, and 1080/25P, 30P are available. What's more, this CCD can capture top-quality 1080/50P, 60P images - a capability that also offers highest-quality 720/50P, 60P image acquisition for today's operations.

14-bit A/D (Analogue to Digital) conversion

The HDC-1550R utilises a 14-bit A/D convertor, which enables images captured by the high-performance CCDs to be processed with maximum precision. In particular, this high-resolution A/D conversion allows the gradation in mid-to-dark-tone areas of the picture to be faithfully reproduced. Thanks to this 14-bit A/D convertor, pre-knee signal compression at highlight areas can be eliminated and the camera can clearly reproduce a high-luminance subject at a 600% dynamic range.

Improved S/N ratio

At the heart of the outstanding picture performance of the HDC-1550R camera is a newly developed 2/3-inch type 2.2-megapixel full HD progressive CCD. Based on Sony's HAD sensor technology and the latest on-chip lens structure, this CCD offers a high sensitivity of F10 or F11 at 2,000 lx and an excellent signal-to-noise ratio of 56 dB (typical).

Together with a unique "Noise Suppression" function, which reduces the high-frequency noise elements in video signals by using Sony's advanced digital signal processing technology, a 64dB S/N ratio can be achieved.

Newly added Focus Assist Functions

For easier focusing through the viewfinder, two types of focus assist functions are newly incorporated to the HDC-1550R: Viewfinder Detail and Focus Assist Indicator. To intuitively recognize a focusing point, users of the camera can add dedicated image-enhancing edge signals directly to the viewfinder as "Viewfinder Detail". The "Focus Assist Indicator" is a helpful tool for manual focus adjustments, especially when shooting wide-angle views. An indicator is displayed at the

bottom or other positions of the viewfinder frame, enabling users to make more accurate and fine focus adjustments.

Low profile chassis design

The HDC-1550R portable camera is designed to be very compact and lightweight for a high level of mobility in the field. The HDC-1550R camera weighs approximately 4.9 kg ensuring comfortable operation either on the shoulder or on a tripod.

Benefits

New CCD and DSP provides even greater picture performance

The use of a new, state-of-the-art CCD sensor ensures high quality images even at low light level. The high sensitivity of F11 at 2000 lux, together with a signal to noise ratio of 56 dB combine to deliver unprecedented picture quality.

Multi-format operation

The HDC-1550R can operate in a wide variety of capturing modes, including 1080 50/60i, 1080 24/

25/30P. Furthermore, the CCD can capture 1080 50/60P images, which can be down sampled to deliver the highest quality 720 50/60P pictures.

Ergonomic Design

The design of the HDC-1550R is based on over two decades of Sony experience in manufacturing broadcast video cameras and camcorders, and provides a high level of operability. All control switches and connectors are in the most logical places and are positioned for optimum functionality and ease of use. The HDC-1550R's low centre of gravity design allows the operator to carry the camera comfortably on the shoulder. In addition, the shoulder pad of the HDC-1550R can be adjusted either forwards or backwards without using a screwdriver, so the camera can easily be moved to a well-balanced position.

Sophisticated large lens adaptor design with one-touch, cable-free docking

The HDLA-1500 large lens adaptor includes a unique mechanism which allows the HDC-1550R to be quickly and easily attached and detached without removing the large lens. No additional cable connections are necessary between the camera and adaptor, thanks to a novel "hot shoe" system.

Technical Specifications

-- General --

Power requirements	180 V DC, 1.0 A (max.), 12 V DC, 7 A (max.)
Operating temperature	-20 to +45°C (-4 to +113°F)
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Mass	Approx. 4.9 kg (10 lb 13 oz)

-- Camera --

Pickup device	3-chip 2/3-inch type CCD
Effective picture elements (H x V)	1920 x 1080
Signal format	1080/50i, 59.94i, 23.98P, 24P, 25P, 29.97P 720/50P, 59.94P
Spectrum system	F1.4 prism system
Lens mount	Sony bayonet mount
Built-in filters	CC: A: CROSS, B: 3200K, C: 4300K, D: 6300K, E: 8000K ND: 1: Clear, 2: 1/4ND, 3: 1/8ND, 4: 1/16ND, 5: 1/64ND
Sensitivity (1080/59.94i)	F10 at 2000 lx (3200K, 89.9% reflectance)
Signal-to-noise ratio (1080/59.94i)	54 dB (typical)
Horizontal resolution (1080/59.94i)	1000 TV lines (at center)
Registration	Within 0.02% (all zones, without lens)
Shutter speed selection	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 s (1080/59.94i) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s (1080/50i)
Modulation depth	45% horizontally (typical) (800 TV lines at center, 27.5 MHz, with typical lens)

-- Input/output connectors --

Audio input (CH1)	XLR-3-pin (female) (1), mic or front mic or line selectable
Audio input (CH2)	XLR-3-pin (female) (1), mic or line selectable
Mic 1 input	XLR-3-pin (female) (1)
Prompter output/Genlock input/Return input	BNC type (1), 1.0 Vp-p, 75 ohms
DC input	XLR-4-pin (1), 10.5 to 17 V DC
DC output	4-pin (1), 10.5 to 17.5 V DC, 1.5 A (max.)
Test output	BNC type (1), 1.0 Vp-p, 75 ohms
SDI output	BNC type (1) HD-SDI/SD-SDI selectable
Earphone output	Stereo minijack (1)
HDCU/HDTX	Triax connector (1)
Tracker	10-pin (1)
Crane	12-pin
Intercom 1	XLR-5-pin (female) (1)
Intercom 2	XLR-5-pin (female) (1)
Remote	8-pin (1)
Lens	12-pin (1)
Viewfinder	20-pin (1)

Accessories**Control Systems****HDCU-1000**

HD Camera Control Unit

**RCP-750**

New Joystick-type full-function remote control panel for use with all BVP and HDC systems cameras

**HDTX-100**

HD Triax Adaptor (Fischer type)

**RCP-751**

New Dial-type full-function remote control panel for use with all BVP and HDC systems cameras

**MSU-900**

Master Set-Up Unit for BVP and HDC series cameras. Provides centralised control for a multi camera system in any studio or OB van, in a compact, horizontal panel format

**RCP-920**

Remote Control Panel

**MSU-950**

Master Set-Up Unit for BVP and HDC series cameras. Provides centralised control for a multi camera system in any studio or OB van, in a compact, vertical panel format

**RCP-921**

Remote Control Panel

**HDCU-1500**

HD Camera Control Unit

Option Boards



HKCU-1001

SD Analogue Interface Board for HDCU-1000 and HDCU-1500



HKCU-1003

Multi Interface Option Board for HDCU-1000 and HDCU-1500



HKCU-1005

SDI Output Expansion Board for HDCU-1000 and HDCU-1500

Lens Accessories



HDLA-1500

HD Large Lens Adaptor



HDLA-1505

HD Large Lens Adaptor

Viewfinders and Hoods



HDVF-20A

HD Electronic Viewfinder (2IN)



HDVF-C950W

Multi-format HD Colour LCD Viewfinder for use with the HDC-1500 portable HD cameras

HDVF-C730W

6" Multi-format HD Colour LCD Viewfinder



HDVF-700A

HD CRT Viewfinder(7 inch)



VFH-770

SPORTS HOOD FOR BVF-77CE

VFH-990

Sony View Finder Hood

HDVF-9900

SONY ELECTRONIC VIEWFINDER

Viewfinders



HDVF-C35W

HD Colour LCD Viewfinder

BKW-401

Viewfinder Rotation Bracket

Tripods



VCT-14

TRIPOD ADAPTOR FOR PORT. CAMERAS/CAMC.