



## HDC-1450R

Prestige line-up for Multi format HD Portable Camera

### 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-1450R - offering a broader choice of interlace and progressive formats, much greater picture quality, and enhanced operational flexibility.

The HDC-1450R 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 as well as the highest-quality 720/50P images.

The HDC-1450R 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-1450R 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. What's more, this CCD can capture top-quality 1080/50P images - a capability that also offers highest-quality 720/50P image acquisition for today's operations.

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

The HDC-1450R 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-1450R 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-1450R: 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-1450R portable camera is designed to be very compact and lightweight for a high level of mobility in the field. The HDC-1450R 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.

### Dual-format operation - 1080 50i and 720 50P.

The HDC-1450R can operate in a wide variety of capturing modes, including 1080 50i and 720/50p. Furthermore, the CCD can capture 1080 50P images, which can be down sampled to deliver the highest quality 720 50P pictures. In addition optional software allows the HDC-1450R to be upgraded with 1080/25P capability if necessary.

### Ergonomic Design

The design of the HDC-1450R 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-1450R'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-1450R 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-1450R 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	1080/59.94i, 720/59.94P (for 60-Hz countries) 1080/50i, 720/50P (for 50-Hz countries)
Spectrum system	F1.4 prism system
Lens mount	Sony bayonet mount
Built-in filters	ND: 1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND, 5: CROSS

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 (for 1080/59.94i, 60-Hz countries) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s (for 1080/50i, 50-Hz countries)
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), AES/EBU or mic or line selectable
Mic 1 input	XLR-3-pin (female) (1)
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

**SONY****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

**Lens Accessories****HDLA-1500**

HD Large Lens Adaptor

**HKCU-1005**

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

**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.