

# HDC Robotic Camera System

## TURNKEY HIGH-DEFINITION BROADCAST ROBOTIC CAMERA SYSTEM

The HDC robotic camera system is perfect for broadcast and professional video applications and its video performance is unsurpassed with switchable 720p and 1080i, as well as global HD format support in an integrated package.

The Grass Valley™ HDC robotic camera system provides a fully integrated, turnkey camera system that includes camera, robotics, and lens in one easy to use package...right out of the box. The TCP/IP Ethernet architecture is easy to configure—set the IP addresses of all the cameras and controllers to any desired subnet, and begin to use the system immediately. No rack mounting of the equipment or complicated wiring diagrams are necessary. Use multiple controllers to segregate cameras living on a single network for multiple studio locations, or create layers of redundancy with the ability to take control of the entire camera network when necessary.

The HDC robotic camera system is an ideal solution for any broadcast or professional video application that requires a compact, fully-integrated, top-quality, pan/tilt/zoom/focus, remote-control HD camera system. Suitable for news, sports, game shows, legislative, or other applications, where the three 2/3" CCD will provide excellent picture quality for years.

The robotics of the HDC system features smooth and precise controls and performance, with speed and accuracy designed to meet the most demanding studio requirements. Compared to larger studio robotic pedestals, the HDC system has a smaller footprint, is easier to set up and use, and can be scaled up to 16 units on a single network for significantly less overall cost. All of this, plus the service and support that you expect from Grass Valley.

### Perfect for Broadcast and Professional Video Applications

The HDC camera system features switchable 720p and 1080i support, global HD format support via standard HD-SDI connection, and an optional standard definition (SD) SDI video output card. The optional SD-SDI output card allows a gradual transition to HD when you're ready, without buying additional equipment down the road.



The advanced TCP/IP network architecture of the HDC camera system allows up to sixteen cameras and multiple controllers to exist and interact on a single network hub. Start with a few, then scale your production as you need it—the HDC camera system is plug and play when it comes to adding more camera or controller units to an existing network.

For broadcasters, the HDC camera system is designed for the most demanding productions, including live news shows, live and live-to-tape/disk talk shows, and for use as a flash-cam, where a compact, remote control camera system is essential.

For the high-end professional audio/video user, the HDC camera system is ideally suited for use in government and judicial chambers, military installations, large auditoriums and houses of worship—applications that require compact and quiet systems, and control of multiple cameras from a single console.

## KEY FEATURES

- Multi-format, global HD standard support:
  - 720p50/59.94/60
  - 1080i50/59.94/60
  - 1080p24/25/30
  - HD-SDI standard output
  - Optional SD-SDI video output card
- 14-bit advanced digital signal processing (DSP) delivers unparalleled colors, skin tones, and fast image compensation in varying production environments
- Switchable 4:3/16:9 aspect ratio
- High-sensitivity 2/3" CCDs
- Sensitivity of F10.0 @ 2,000 lux and smear level of less than -130 dB
- 300 location presets and 600 seconds of programmed movement recall
- IP control via standard TCP/IP networks
- Fast pan and tilt speed (90°/second maximum speed)
- Converged pan/tilt/focus/zoom operation for seamless on-air movements
- Inverted mounting and automatic picture flip support
- Two user-programmable scene file presets; one factory default preset

## SPECIFICATIONS

### Pan-Tilt

**Pan angle:** 356° (±178°)

**Pan speed:** 90°/sec. max. speed

**Tilt angle:** 356° (±178°) without prompter

**Tilt speed:** 90°/sec. max. speed

**Accuracy/repeatability:**

- 30 arc seconds
- 0.1° at 60 feet (1.4 mm at 10m)

**Noise rating:** <30 dBm @ 1m

**Presets:** 300

**On-air moves:** yes, max. time 600 seconds

**Diagonal motion:** yes

**S-movement profile:** yes

**Tally light:** yes, dual color (yellow/red)

**Teleprompter:** optional

**Standard control:** 10Base-T Ethernet

**Inverted mounting:** yes

### Camera

**Formats:**

- 720p50/59.94/60
- 1080i50/59.94/60
- 1080p24/25/30

**CCD size:** 2/3" IT type x 3

**Pixels:** 1,000,000

**Synchronization:** internal/external

**Standard illumination:** 2000 lux @ F10

**Minimum illumination:** 0.015 lux (F1.4/68 dB)

**Smear level:** <130 dB

**Signal-to-noise ratio:** 54 dB

**Image enhancer:** 14-bit DSP

**Color bars:** SMPTE and EBU

**Shutter speed:** adjustable

**Iris:** auto/manual

**Video output:**

- HD-SDI
- SD-SDI via optional card

### Lens Options

#### Premium Lens Option

**Zoom:** 16X

**Built-in extender (if equipped):** 2X (manually controlled at lens)

**Focal length:**

- 7.7-124 mm
- 15.4-248 mm (2X)

**Angular field of view:**

- 63.9° x 38.6° @ 7.7 mm
- 4.4° x 2.5° @ 124 mm

**Angular field of view with 2x:**

- 34.6° x 19.9° @ 15.4 mm
- 2.2° x 1.2° @ 248 mm

#### Standard Lens Option

**Zoom:** 20x

**Focal length:** 9-162 mm

**Angular field of view:**

- 55.80° x 33.60° (wide)
- 3.40° x 1.90° (telephoto)

### Physical Characteristics

**Weight:**

- Approx. 30 lbs. (13.6 kg) without prompter\*
- Approx. 55 lbs. (25.0 kg) with 17-inch prompter\*

**Operating temperature:** 14°F to 113°F (-10°C to +45°C)

**Operating humidity:** max. 90%

**Power requirement:** 120 VAC – 240 VAC 60/50 Hz

**Power consumption:** ~1.5A

### JSC-2300 SHOT Director Specifications

#### Physical Characteristics

**Weight:** 4.5 lbs. (2.04 kg)

**Operating temperature:** 32°F to 100°F (0°C to +37.78°C)

**Operating humidity:** max. 95% noncondensing

**Power requirement:** external power supply mains 100-240 VAC 50/60 Hz. DC power available to JSC-2300 5V, 3A (±5% voltage regulation)

**Power consumption:** min. 3.3W, max. 6.75W typical measured at DC input

**Dimensions:**

- Length: 18 in. (45.72 cm)
- Height: 5.5 in. (13.97 cm)
- Depth: 8.5 in. (21.59 cm)

\* Ensure only tripods rated for robotic cameras are used, rated for minimum 250 lbs. of load capacity

## JSC-2300 SHOT Director



The JSC-2300 SHOT Director™ offers convenient and efficient controls for programming and recalling advanced robotic and camera controls, as well as camera shading and configuration adjustments for the HDC robotic cameras.

## JSC-2300 SHOT DIRECTOR FEATURES

- Pan/tilt/zoom joystick
- Pan and zoom speed control sliders
- Focus control wheel
- Iris control wheel
- LCD screen for menu-driven controls
- Numeric keypad for programming and recall of location and movement data
- Quick-recall hotkeys for easy access to several cameras and controls
- TCP/IP control of the HDC cameras
- Ability to operate on an HDC camera network with multiple controllers
- Password lockout and takeover controls
- Seamless integration with Ignite™ Live Production Control Systems
- RoHS compliant

## ORDERING INFORMATION

### HDC-3300

Premium HD Package: includes camera, robotics, and premium HD zoom lens

### HDC-3250

Standard HD Package: includes camera, robotics, and standard HD zoom lens

### JSC-2300

Optional SHOT Director multi-camera joystick controller

### HDC-TP17

17" custom through-the-lens high-brightness teleprompter

### TMP-3000

Custom tripod mounting plate adapter

### TPD-3000

Heavy-duty tripod with custom mounting plate

### TPD-3100

Tripod dolly wheels for the TPD-3000

### WMT-3000

Custom wall mount adapter

### SDC-3000

SD-SDI output option card

## CUSTOMER SUPPORT & PROFESSIONAL SERVICES

Our customer support and professional services offerings ensure optimal system performance and maximize uptime. These services include call centers staffed around the clock, commissioning, professional training courses, and technical maintenance programs and service agreements.

[www.grassvalley.com/support](http://www.grassvalley.com/support)

