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NAB 2008 new products

CANON INTRODUCES NEW DIGISUPER 27 HD STUDIO LENS AND DIGISUPER 27AF WITH AUTO FOCUS

DIGISUPER 27AF

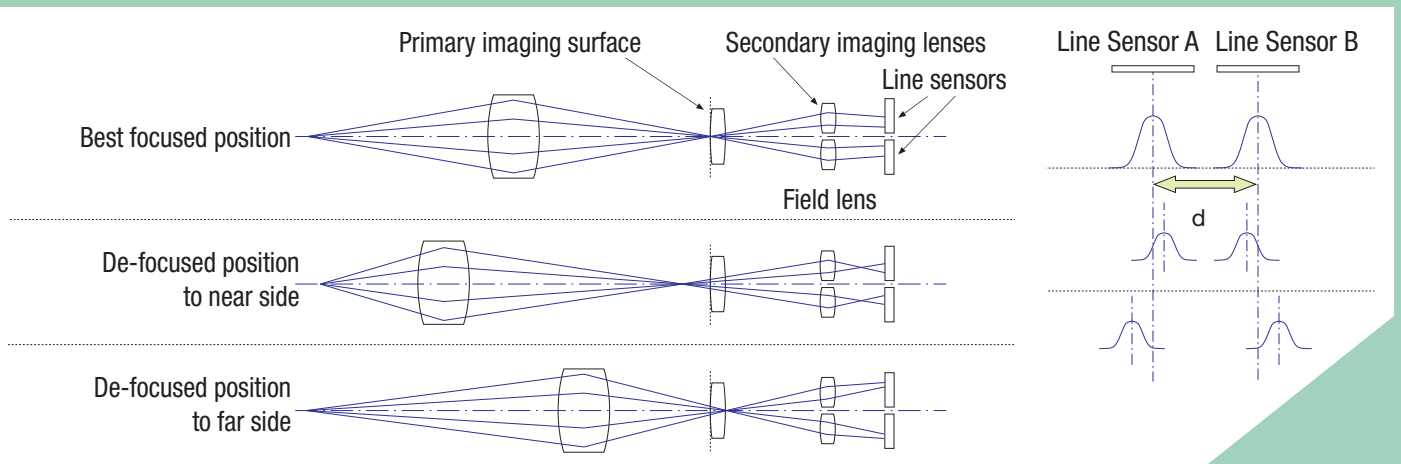
As the production of HDTV program content accelerates, Canon continues to improve HD lens technology with new and advanced features for enhanced performance and ease-of-use. This includes Canon's NAB 2007 introduction of the revolutionary DIGISUPER 100AF and DIGISUPER 86AF long-field HD zoom lenses with Canon's proprietary Auto-Focus technology. Now, at NAB 2008, Canon continues to advance HD lens technology with the introduction of the DIGISUPER 27 and DIGISUPER 27AF HD studio lenses (models XJ27x6.5B IE-D and XJ27x6.5B AF, respectively) for unprecedented performance and - in the case of the DIGISUPER 27AF - Auto-Focus convenience optimized for HDTV studio applications.

The DIGISUPER 27 and DIGISUPER 27AF are the successors to the DIGISUPER 25xs, which was one of the industry's most popular HD studio lenses. The DIGISUPER 27 and DIGISUPER 27AF are the evolutionary "next steps" in HD studio lenses for Canon. Both are wider, have a bigger zoom ratio, and feature newly developed multi-layer optical coatings that dramatically reduce ghosting and flaring. The DIGISUPER 27AF, however, takes HD studio lens performance even further with unprecedented Auto Focus capabilities for the HDTV studio environment. The DIGISUPER 27AF HD studio lens utilizes Canon's proprietary Auto Focus technology, which is set to revolutionize HD production on multiple fronts.

With the widest angle of any lenses available, the DIGISUPER 27 and DIGISUPER 27AF HD studio lenses have a focal length of 6.5mm to 180mm. These lenses also offer the optional BWA-271 0.9x Wide Attachment, the industry's first wide-angle attachment for an HD studio lens. This "zoom-through" Wide Attachment enables users to begin with a wide shot and go telephoto without experiencing negative effects on light transmission. This feature alters the range of the zoom on wide settings by ten percent toward the wide side, making a new zoom range of 5.85mm to 162mm.

AF Auto Focus

TTL-SECONDARY IMAGE REGISTRATION PHASE DETECTION



The light transmits through a pair of secondary imaging lenses and is directed to focus on separate sensors. The secondary imaging phase difference method determines the relative positional relationship between the two images ("d" on figure above) to detect the amount and direction of defocusing.

Other innovations in the DIGISUPER 27 and DIGISUPER 27AF HD studio lenses include a maximum servo-zoom speed of 0.5 seconds and a new optional remote-controllable macro-focus feature that allows the camera operator to perform macro focusing from the pan bar (a helpful tool for focusing on jewelry and other small objects).

Auto Focus Optimized for the HD Studio

The tremendous picture detail contained in HDTV makes anything in less-than-perfect focus immediately obvious. As a result, shooting HD video poses new

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CANON IMPROVES HIGH-DEFINITION REMOTE-CONTROL ROBOTIC PAN-TILT CAMERA PERFORMANCE WITH THE NEW BU-45H

As video transitions to widescreen 16:9 HD (high definition) in every sector of television technology, demand has increased for a versatile and cost-effective HD pan-tilt camera for specialized applications. These applications include POV (point-of-view) cameras for traffic and weather monitoring, houses of worship, legislative chambers, high-resolution outdoor security installations, remote-controlled Web cameras, and more. Responding to this demand, Canon has introduced the new BU-45H remote-control robotic pan-tilt HD 16:9 camera system at NAB 2008. The product leverages Canon's global leadership in advanced optics, camera pan-tilt control technologies, and video imaging.

The successor to Canon's highly successful standard-definition NU-700N remote-control robotic pan-tilt camera, the economical new BU-45H remote-control robotic pan-tilt HD 16:9 camera features a Canon HD camera equipped with three 1/3-inch (1,670,000-pixel) CCDs, a Genuine Canon HD zoom lens with 20X optical zoom ratio (4.5 - 90mm), and a remote-control ND (neutral density) filter. In addition to providing exceptional controllability and smooth pan-tilt motion, the BU-45H remote-control robotic pan-tilt HD 16:9 camera also offers such advanced features as a Canon Auto Focus function and Canon's sophisticated Image Stabilizer technology.

Canon recognized the need for a cost-effective, high-definition robotic camera system in a rugged outdoor housing. The BU-45H remote-control robotic pan-tilt HD camera combines Canon's sophisticated pan-tilt technologies with its world-renowned optical and HD camera technologies to produce an economical, turn-key solution that is completely designed and manufactured by Canon.

The Canon BU-45H remote-control robotic pan-tilt HD camera, which is powered by 12V DC current, also provides genlock input for video system synchronization. Outputs include HD-SDI and SD-SDI with embedded audio or standard-definition composite NTSC. The BU-45H remote-control robotic pan-tilt HD camera can output HD-SDI and NTSC simultaneously for high-definition recording and standard-definition monitoring at the same time.

The BU-45H remote-control robotic pan-tilt HD camera is capable of panning 340 degrees and tilting 80 degrees (30 degrees up, 50 down). Its outdoor pan-tilt head and weatherproof housing are designed for operation from -15 to +40 degrees Celsius (5 to 104 degrees Fahrenheit). The BU-45H remote-control robotic pan-tilt HD camera's housing also meets the IP-45 specifications for dust- and water-proof efficiency, and it has a "windshield-wiper" blade to keep its lens port clear. The total weight of the pan-tilt system, camera and housing is 17 kg. (approx. 37 lbs.).

The Canon BU-45H remote-control robotic pan-tilt HD camera's control protocol is non-proprietary and open; users or system integrators can interface the camera with their own control system or that of third-party providers to create a robotic control system. The BU-45H remote-control robotic pan-tilt HD camera can be operated in automatic mode or all of its main features can be controlled manually as well. Short and long-distance control systems interface via RS-422 connections. Optional third-party E/O (electrical-to-optical) converters are available from multiple vendors to enable worldwide connectivity via fiber optics or a connection to the Canon Canobeam DT-150 HD wireless video transceiver for transmission at distances of up to one kilometer.

...NEW DIGISUPER 27 AND 27AF...

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challenges for camera operators and robotic systems, whether in the field or the studio. Canon's extensive experience in addressing the extraordinary demands of designing long-zoom HD field lenses provides the company with a unique understanding of the multiple challenges that HDTV presents to camera operators when covering fast-moving sports events. Canon answered that challenge by developing the DIGISUPER 100AF and DIGISUPER 86AF Auto Focus long-field HD zoom lenses. Both feature sophisticated auto-focus capabilities based on a proprietary HD implementation of Through-the-Lens Secondary Image Registration Phase Detection Method technology. Having conquered the Auto Focus challenge in HD field-lens design, Canon then optimized this technology for use in the studio. As with its DIGISUPER AF long-field HD zoom lenses, the new DIGISUPER 27AF HD studio lens is designed to apply the benefits of Auto Focus technology in the creation of the highest quality HD video images possible, but with particular optimization for HDTV studio use.

The DIGISUPER 27AF creates an operator-controllable window in the HD camera's viewfinder that targets the object operators want to focus on. Camera operators can change the window's position and size by means of a miniature joystick on the camera handle's focus-servo control. An additional button provides three modes of operation: part-time (for instant exact focus); full-time (for full-servo robotic operation); and off (for normal, unassisted lens focus).

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