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## **Hitachi Introduces New SK-HD1500 High-Speed Broadcast System Camera in Europe**

*Hitachi Brings to Market First 6Gbps Fully Digital Optical Transmission System, Plus Superior Signal to Noise Across all Operating Modes in an HDTV Production Camera*

**Amsterdam, 07 September 2012** – On its stand at IBC (11.E30), Hitachi Kokusai Electric Europe will showcase the new 16-bit SK-HD1500 1080/6G high speed HD production camera. Developed for super slo-motion applications and capable of 3X speed 1080-line HD operation, Hitachi has brought to market the first 6Gbps, fully digital optical transmission system in an HDTV production camera. Reflecting its specialist development programme, Hitachi's new super slo-motion camera offers superior signal to noise performance to rival cameras when operating at normal and 3x speeds.

The camera's use of 6Gbps data transmission contrasts with competitive systems, which all use 10Gbps transmission. Hitachi's implementation of 6Gbps transmission technology significantly extends the maximum cable length possible between camera head and control unit, by around 4000m.

The SK-HD1500 represents Hitachi's most accurate transport available for the 1080-line 150/180 images from the camera head to the camera control unit. All command audio and video signals to and from the camera are digitally transmitted hence, totally immune to EMI/RFI interference.

Hitachi reports that in developing this camera, it has benefited from extensive beta testing in a range of live production environments at recent major sporting and cultural events. The company reports that users highlight superior HD image resolution through the camera's use of 16-bit digital signal processing, good signal to noise (-58dB) and excellent depth of modulation (60% at 27.5 MHz) as being key features of the SK-HD1500.

“Slow motion HD video is an area that defines a broadcaster's programming in so many genres from sport to natural history. The right camera choice can help broadcasters differentiate their channels from rivals and at Hitachi we have aimed to create a camera that enables this,” commented Paddy Roache, Director and General Manager of Hitachi Kokusai Electric Europe. “The SK-HD 1500 represents the market's most advanced slow motion HD production camera and when combined with the SK-HD 1200 they offer a powerful and elegant HDTV production proposition.”

Each essential part of the Hitachi SK-HD1500 camera system has its own DSP processor. Different DSP ICs are used independently for the HDTV camera head processing, the transmission system and the Camera Control Unit (CCU) processing. The new, power-efficient Digital Signal Processor LSI's are designed under the 40nm rule with dynamic processing capability in excess of 38-bits per pixel, per RGB channel.

Hitachi's DSP processors are designed to easily manage the higher bandwidth of progressive readout HDTV sensors. The increased dynamic headroom of the SK-HD1500, allows faithful reproduction of even the most contrasting images. An outstanding overall signal-to-noise ratio is achieved by using Hitachi's proprietary low-noise circuit technology without needing to resort to noise filtering methods. Even at high gain, clear images are obtained with little noise.

Camera power and cable condition supervision are also performed when using standard SMPTE311-type Hybrid Fiber Cable. The maximum HFOC length with applied camera power and fully operational facilities is 4,000m (13,200 feet) with no utility power.

The SK-HD1500 incorporates an additional 1.5G HD video channel from the camera head to the Camera Control Unit (CCU) forming a second camera channel. The CCU provides significantly reduced power consumption and improved functionality. SDI (1080i/720p/480i/576i) inputs/outputs are offered as standard and this flexible system is capable of providing

many modern HD/SD-SDI video signals required by today's HDTV program production demands.

The SK-HD1500 starts shipping in September and is available to customers worldwide.

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### **About Hitachi Kokusai Electric**

Broadcast and professional video cameras made by Hitachi Kokusai Electric are synonymous for innovation and ultimate performance - Hitachi has been one of the most significant Japanese companies in developing broadcast camera technology.

Hitachi launched the first portable Professional Video Camera that could directly compete against studio-cameras in the early 90s - a technical revolution in its time. The company is also responsible for the development of digital TRIAX-technology.

Hitachi has been a long-term collaborator with Japanese broadcaster, NHK on the Super Hi-Vision (Ultra HD) project. Last month, NHK debuted a new lightweight prototype Hitachi SHV camera at SHV screenings of the 2012 London Olympic Games. The new cameras weigh just 4kg, compared to 20kg for the models being used to film Olympic events, and 80kg for the original SHV camera, made in 2001.

Today Hitachi is even more successful in developing and providing high-end broadcast technology. It is committed to meeting the needs of its users today, while helping to forge a migration path for tomorrow. Studio productions, documentaries, sports or live-events, Hitachi offers sophisticated camera systems for a wide range of production techniques.

[www.hitachi-keu.com](http://www.hitachi-keu.com)

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### **For further information contact:**

#### **Scribe PR**

Bob Charlton

T: +44 1884 860100

E: [bob@scribe-pr.com](mailto:bob@scribe-pr.com)

W: [www.hitachi-keu.com](http://www.hitachi-keu.com)