

JVC Develops First 4K2K 60p Live Camera ***Compact head, ultra high resolution (3,840 x 2,160) imaging***

Tokyo, Japan, May 12, 2009 – JVC (Victor Company of Japan, Limited) is pleased to announce the development of the world's first 4K2K 60p camera capable of 60 progressive frame live signal output and 8.29 megapixel 4K2K (3,840 horizontal x 2,160 vertical), ultra-high-resolution images - approximately four times the resolution of full HD (1,920 x 1,080).

The camera's compact head was made possible by building the processing function into a separate unit. JVC's unique high-speed data transmission format allows the processing device to be located up to a maximum 100m (328ft) away from the camera, granting users greater freedom of movement for more active shooting. JVC plans to begin marketing the 4K2K 60p camera during fiscal year 2009 and is now accepting advance orders.

Primary features

1. Real-time processing of RAW data from a sensor on the camera makes possible 4K2K 60p live video output for the first time. 4K2K ultra-high-resolution color signal output can be used for a broad range of applications, including live presentations, monitoring/control and education and health care services.
2. Providing a live signal output function would normally mean making the camera head much larger to accommodate the necessary equipment. JVC decided to place priority on ease of use, however, and succeeded in reducing the camera's weight to a mere 3kg by delegating the processing function to a separate unit. JVC then raised performance to a new level by developing a unique format that transmits RAW data at a speed of about 10Gbps between the processing device and a sensor on the camera. For more challenging and creative video shoots, optical fiber can be used to connect the camera to the processing device, which can be placed up to a maximum 100m (328ft) from the camera.
3. The 4K2K camera incorporates a single 1.25-inch CMOS image sensor and supports 12bit signal processing.



< 4K2K 60p camera head >



<4K2K 60p signal processing unit>

4. The 4K2K camera is compatible with external video synchronization and can work with multiple synched cameras.

Development Background

In 1996, JVC embarked on the development of Ultra High Definition image systems as the successor to High-Vision Definition. JVC later developed a 1.27-inch 4K2K D-ILA device with a 6.8 μ m pixel pitch and resolution of 4,096 x 2,400 pixels, and in February 2008 began marketing a newly commercialized professional D-ILA projector - the DLA-SH4K - incorporating that device. JVC's newly developed 4K2K 60p camera is another milestone in the drive to meet demand for next-generation ultra-high-definition imaging. With support from NHK Engineering Services, Inc., the camera was developed to not only enhance content production but also to expand the variety of applications and settings in which it can be used. In the end, JVC managed successfully to create a more compact camera head that nevertheless incorporates live signal output. The 4K2K camera's value proposition will be enhanced in future through integration with JVC's 4K2K DLA-SH4K projector.

Primary Specifications

4K2K 60p camera head	
Sensor type	CMOS (single chip)
Image size	1.25 inch (19mm in diameter)
No. of effective pixels (H x V)	3,840 x 2,160
Color filter	RGB Bayer
Sensitivity	\geq F5.6 2,000lux
Frame rate	60p/59.94p
Lens mount	Nikon F mount or PL mount
Power source	DC+12V (+9V - +18V)
Dimensions (W x H x D): mm	124 x 353 x 180

4K2K 60p signal processing unit	
4K signal output	HDSI Dual Link (4:2:2/10bit) x 4ch (SMPTE372M) DVI Single Link (4:4:4/8bit) x 4ch
Sync input	HDSI 1080 60i/59.94i (SMPTE 292M)
Power source	AC100V – AC240V (50Hz/60Hz)
Dimensions (W x H x D): mm	432 x 500 x 88

Note: On October 1, 2008, Victor Company of Japan, Limited (JVC) and Kenwood Corporation integrated their management to establish JVC KENWOOD Holdings, Inc. by means of a share transfer.

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