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August 2008

# Broadcaster

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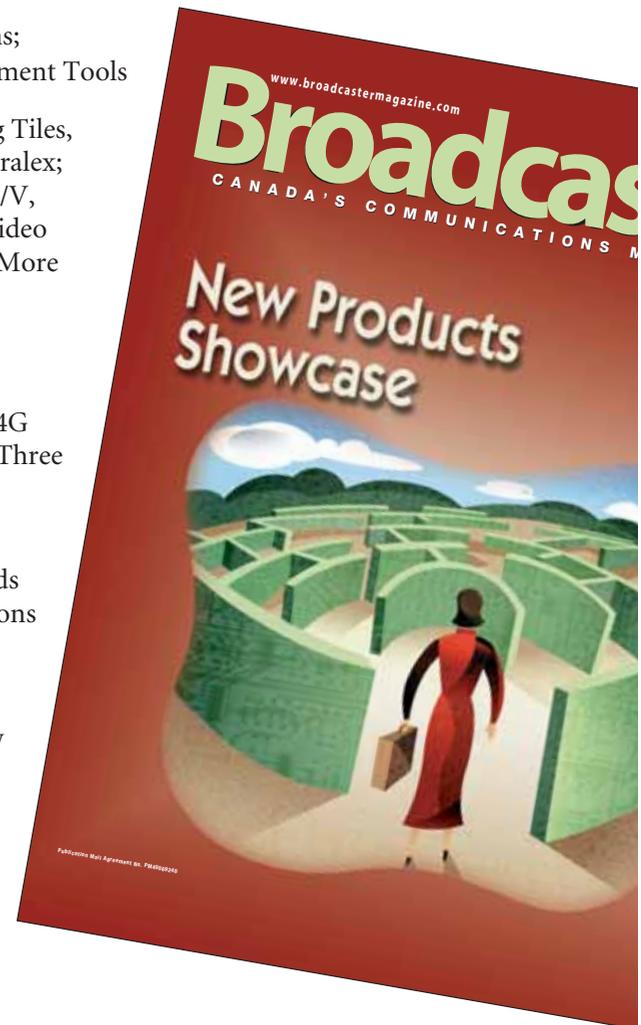
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## New Products for Broadcast Acquisition, Production and Distribution

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## Algoith Ups Upconversion Options

Montreal-based Algoith introduced new products for Upconversion and Frame Synchronization capabilities, to address the evolving needs of broadcast, cable, IPTV and satellite providers.

The Algogear series includes high-definition Upconversion cards (XVC-1001-UC and XVC-1001-UC-BF-SA), multi-definition Frame Synchronization cards (FRS-1002-MD and FRS-1002-MD-LG-PA), as well as the existing standard and high-definition Video Noise Reduction cards (VNR-1000-SD and VNR-1000-HD).

The Algogear Upconverter cards (XVC-1001-UC and XVC-1001-UC-BF-SA) provide high quality conversion from SD to HD video formats. The cards support embedded audio 16 channels (4 groups), closed caption (CC) and time code information. The XVC-1001-UC-BF-SA model provides background fill capabilities and user-adjustable safe

area generation.

The Frame Synchronizer cards (FRS-1002-MD and FRS-1002-MD-LG-PA) are designed for re-timing applications in both SD and HD SDI environments on up to two channels. Additional delay can be added to the synchronizing process in pixel, line or frame increments, with up to 11 additional frames of delay in HD. The Frame Synchronizers also feature adjustable embedded audio (16 channels, 4 groups), and delay adjustment.

The Algogear series, designed specifically for the openGear frame, is comprised of FPGA-based image processing and enhancement solutions with reprogrammable cores, allowing customers the flexibility to repurpose the functionality of the cards over time. In addition, the series offers a number of unique and innovative features including artifact and compression noise reduction, band-



The Algoith openGear frame allows users a choice of cards from over 16 vendors, and can house a mix of analog, digital, video and audio modules in the same frame; permitting broadcast professionals the freedom and flexibility to choose the best solution for their particular application.

width reduction, multi-channel processing, and format conversion. The 2RU openGear frame allows users a choice of cards from over 16 vendors, and can house a mix of analog, digital, video and audio modules in the same frame; permitting broadcast professionals the freedom and flexibility to choose the best solution for their particular application.

Algoith solutions include a series of FPGA-based image processing and enhancement cards designed to meet the exacting needs of broadcast, cable,

satellite, and IPTV providers; as well as specialized IP solutions which can be used for FPGA or ASIC implementations by OEM and IP licensees.

## Sundance Digital Unveils Digital Delivery Management aEngine, New BXF Gateway

Sundance Digital's new Digital Delivery Management Engine (DDME) provides broadcasters, local stations, cable channels and cable origination operations with a cost-effective solution that streamlines workflow transfer from

cache servers to broadcast video servers by automatically enabling file-based media to be discovered and transferred under automation control.

The DDME presents a windowed view of the available cache material alongside

the server database and provides a "drag and drop" method of executing the file transfer to the video server. Users can easily identify delivered content, tag it with traffic metadata, transcode and copy it to their playback server. Low-resolution proxy generation allows that media to be viewed by users outside of master control.

The DDME works in conjunction with Sundance Digital's Titan, FastBreak NXT Automation and FastBreak NXT Entry Level Edition automation suites, the manufacturer describes, and it incorporates Harmonic Inc.'s Rhozet Carbon Coder, a universal transcoding application that facilitates the transfer of media between a variety of platforms, including acquisition, editing, playout, archive, the Internet and mobile devices, as its video transcoding solution.

Sundance Digital's BXF Gateway system dramatically improves business processes and cuts down on operational costs by taking advantage of real-time fault alerts and eliminating time-consuming master control activities caused

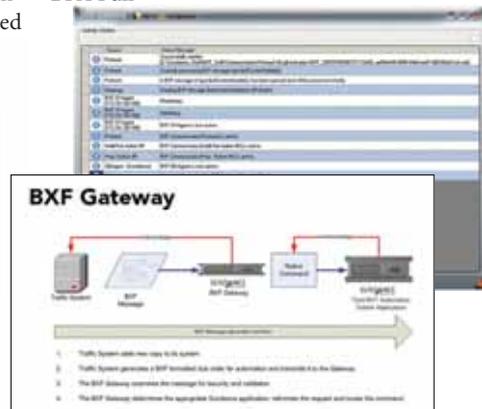
by batch list inefficiencies. BXF Gateway provides a secure point of exchange between systems inside and outside the master control networks.

It enables broadcasters to streamline their workflow and increase the reliability and productivity of their systems' tasks by using the SMTPE BXF communication protocol - a standardized means of data exchange among its traffic, automation, program management, and digital content distribution systems.

The BXF standard offers support for file and message-based data exchange, increases integration of related systems and extends the metadata set for data exchange, via a standardized messaging between a station's diverse business and transmission systems.

The DDME and BXF Gateway are available now. For more information, visit [www.sundancedigital.com](http://www.sundancedigital.com).

W three pix (paid placement advertisement) Sundance DDME, BFX Main, BFX Full



New digital distribution solutions from Sundance Digital include a file-based DDME, (Digital Delivery Management Engine), along with BFX Gateways systems that enhance Master Control operations.





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The logo for HDNA is displayed in a colorful, multi-colored font. The letters are filled with various patterns and colors, including red, green, blue, and yellow. The logo is set against a background of a colorful molecular structure, consisting of numerous small spheres connected by lines, resembling a DNA double helix or a complex network.

## Belden Enclosures for Broadcast, A/V, Telecom

Belden is now offering an array of equipment housing and storage solutions designed specifically to meet the needs of the professional broadcast, audio/video, security and mobile telecom markets.

The new line-up includes the Belden XSF and XMF Series for broadcast applications, and the Belden XME and XMER Series for broadcast, audio/video, security and wireless telecom applications. Key design criteria include uncom-

promisingly strong and well-built structures - along with component features that have been designed specifically to optimize the performance of the cable and to give the user uncommon flexibility in cable management.

Belden broadcast, A/V enclosures and racks are a logical extension to its popular line of IT Networking enclosures, the manufacturer describes, and are engineered for maximum flexibility in configuring systems that meet unique application requirements while, at the same time, facilitating cable installation and management.

Belden enclosures and racks are well-suited to support infrastructures for structured cabling systems; copper or optical fiber cable and connectivity systems (including patch cords, harnesses and cable assemblies); and wireless LAN systems. To assist users in configuring and ordering a system to fit their size, space and component storage requirements, Belden offers a simplified ordering matrix as well as personalized service and support.



## Calrec Audio and Ross Video Collaboration Offers Broadcasters More Production Flexibility

Calrec Audio and Ross Video have developed a software interface that enables Calrec audio consoles to be controlled remotely by the Ross OverDrive Automated Production Control (APC) system.

For broadcasters, this tight integration can mean significantly reduced production costs and more flexibility, in that a single operator can run both video and audio in situations where a full crew is not available or not required, such as for late-night breaking news cut-ins.

The jointly developed protocol enables an operator seated at the video switcher to use OverDrive APC to control auto-fade, or up to 192 individual faders, and to set levels and prefade listen (PFL) on the Calrec console. The interface was developed in response to customer demand and is already in use at some NBC affiliates.



## AJA Video Shows HD, SD Systems

The new FS1 Universal SD/HD Audio/Video Frame Synchronizer and Converter from AJA Video Systems works with both HD and SD video simultaneously - all in full 10-bit broadcast quality video and 24-bit audio. The FS1 supports virtually any input or output, analog or digital, HD or SD, including up-and down-conversion. For audio, the FS1 supports 8-channel AES, Balanced analog, or embedded audio with full flexibility. The FS-1 supports closed captioning and the conversion of closed captioning between SD and HD formats. The FS-1 is also network ready, supporting web-based remote control.

The new 3GM HD-SDI Multiplexer is for interconnecting dual-link 1.5G SMPTE-E372M and 3G SMPTE425M. 3GM is bi-directional - allowing dual 1.5G to 3G or 3G to dual 1.5G conversion. Additionally, 3GM's 3G HD-SDI output is configurable for SMPTE425M type A or B. The 3GM can even convert 3G from/to type A or B. 3GM also provides a monitor output which is a single link SMPTE292M 1.5G HD-SDI. The 3GM is also compatible with SMPTE259M 270Mb SDI.

The AJA HD10CEA converts SDI/HD-SDI video with embedded audio to analog video and 4 channel balanced analog audio. SD video outputs can be configured as YPbPr (Betacam or SMPTE/EBU-N10), RGB, composite or YC (S-Video). HD video outputs can be configured as YPbPr or RGB. All video/audio configuration is done by external dipswitch selection. This versatile, low-cost, miniature monitoring solution also outputs two loop-thru SDI/HD-SDI outputs.



New products from AJA Video Systems support conversion and transfer among SD and HD audio/video signals.

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## Envivio 4Caster Supports Three Screens on Single Platform

Envivio's new 4Caster C4 convergence encoding system provides video compression tools for all three screens of consumer video — Mobile TV, Internet TV and IPTV — on a single platform.

Designed to enable fixed line and mobile network operators to deliver content simultaneously across the full range of consumer devices, the C4 platform is able to take multiple channels of content and encode them simultaneously to deliver multiple mobile TV profiles, multiple Internet TV profiles, or SD and HD IPTV profiles.

This new release of the 4Caster C4 adds support for high definition encod-

ing, as well as 3GPP and 3GPP2 mobile streaming profiles for unicast mobile TV. These new features join the product's existing support for quad channel standard definition encoding for IPTV and quad channel VGA and QVGA encoding for Internet TV.

The 4Caster C4 is a high-availability hardware platform with an ultra-flexible embedded software encoding core that enables customers to alter the compression capabilities of the encoder as needed with a simple software license key. Encoding performance can be upgraded with each software release without the



Multiple mobile TV profiles, multiple Internet TV profiles, or SD and HD IPTV profiles can be delivered using the Envivio 4Caster.

need to buy and install new hardware.

New services, features and device profiles can be added with simple software upgrades.

## Camera Corps Adds Perspective to Olympics

Camera Corps is ready to set out in force for the Beijing Olympic Games in August following a preliminary site survey in March.

The Shepperton-based company will be fielding over two hundred HD camera systems, 18 motorized tracking systems, plus remote heads and large camera cranes on behalf of the host broadcaster.

The inventory of cameras to be positioned in and around Beijing includes 39 Camera Corps HD Minizoom, 68 Hitachi, four Iconix and four Toshiba. An Abakus fisheye stadium lens will be installed above the Velodrome at Shi Jing Shan to cover the 250 metre circumference cycle track. On another recent shoot, two miniature cameras with integral cameras were used, each mounted in a boxer's helmet and linked to a Mini-DV recorder in a protective backback.

This year's Games will be televised entirely in 1080i, producers describe, and as many as 200 specialists will be involved in the installation and set-up. Output from the cameras will be routed to the host broadcaster who will in turn provide television feeds to the various national broadcasters, organizers report.

## Enhance Technology Introduces Next Generation Fibre 4G Storage

Enhance Technology released UltraStor RS16 FS, a new generation of dual Fibre Channel 4Gbps storage system boosted by a powerful 64-bit hardware architecture.

The UltraStor RS16 FS is designed to operate in performance, mission critical, and data-intensive network environments.

UltraStor RS16 FS allows users to flexibly populate with a mix of high performance SAS or high capacity 3

Gb SATA disks to deploy tiered storage which ensures the best ROI and meets the increasing demands of large transactional databases. Compatible with industry standard SFP interface with copper or optical connection, hot-swappable drive trays, redundant power supplies and cooling fan modules, the UltraStor RS16 FS enables system maintenance without interruption of services.

The UltraStor RS16 FS allows users

to start with the storage capacity they currently need and offers dynamic data expansion through daisy-chaining four (4+) more optional RS16 JS JBOD units to form large RAID storage and scale up to a massive of 80 terabytes.

The UltraStor RS16 FS and UltraStor RS16 JS are now available from Enhance Technology or through a selective group of dealers worldwide.

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Camera Corps high-fliers on site in Beijing prepare for Olympics broadcast. Neil Ashworth of Camera Corps is shown with a Point-of-View camera and backpack recorder.



**AJ-HPX2700 and AJ-HPX3700**

The P2 HD VariCam camcorders, VariCam 3700 (model AJ-HPX3700) and VariCam 2700 (model AJ-HPX2700), represent a synergistic pairing of Panasonic's popular solid-state recording technology and unique VariCam features and capabilities. These new 2/3" Native HD resolution models greatly advance digital filmmaking with features including master-quality, full-resolution 10-bit 4:2:2 AVC-Intra 100 recording; variable frame rates in one-frame increments; HD-SDI output of 23.98PsF/24PsF; and a multi-gamma function including Film-Rec for the VariCam look closely matching the color and response of film stocks.

**AG-HPX170**

The AG-HPX170 solid-state handheld camcorder enables high definition and standard definition recording, the widest zoom lens in its class, and a HD-SDI interface for connection to base-band production and distribution infrastructure, all in a lightweight 1.9-kilogram (4.2-pound) body. Building on the phenomenal success of the AG-HVX200, the AG-HPX170 is equipped with three new premium 1/3-inch CCDs and a high-performance digital signal processor with 14-bit A/D conversion and 19-bit processing to deliver broadcast-quality, independent frame recordings. The AG-HPX170 offers a 13X Leica Dicomar zoom lens with a 28mm wide-angle setting (the widest in its class), and a 20-step frame rate selection in 720p mode for variable-speed shooting in the 12fps to 60fps range to acquire fast- or slow-motion in-camera effects.



**AG-HMC150**

Building on the phenomenal success of the highly popular DV tape based, standard definition AG-DVX100 camcorder, the affordable HMC150 blends professional 1080 and 720 HD production capabilities and enhanced quality recording (at average 21 Mbps/ Max 24Mbps) with the simplicity and familiarity of SD card workflow. With an exciting range of professional-level features and a sleek, compact design, the HMC150 can record hours of high-quality 1080 and 720 HD images onto solid-state SD and SDHC memory cards,



at lower bit rates than current HDV compression formats. This new model offers an enhanced quality mode at an average 21 Mbps (max 24 Mbps) that moves quality up even further.

The AG-HMC150 camcorder utilizes AVCHD, the industry's newest long GOP compression standard based on MPEG-4 AVC/H.264 high profile encoding (the same as Blu-ray HD players). AVCHD provides a near doubling of bandwidth efficiency and improved video performance over the older MPEG-2 compression used in HDV for-

ats and standard definition DVD players. AVCHD high definition recordings look clean and clear, even during fast motion, reducing the image degradation or dropout associated with HDV.

**AW-HE100**

This new multi-format HD/SD camera features an integrated pan-tilt-zoom (ptz) mechanism with an ergonomic design, outstanding image quality and flexible system



configuration. With progressive 1/3" IT 3-CCDs, a 14-bit A/D converter, and a 19-bit digital signal processor, the camera produces incredibly-vivid images in a wide range of lighting conditions and environments, whether in use in large auditoriums and indoor sport facilities or in news studios and conference rooms. The camera supports and can switch between 1080i, 720p, 480i and 480p, and can simultaneously output both HD and SD signals.

# LIVE THE DREAM IN HD

## PANASONIC IS THE OFFICIAL HDTV OF THE OLYMPIC GAMES

**P2HD** **AVC INTRA** **DVC PRO HD**

Panasonic is proud to support the Olympic Movement as an official worldwide Olympic Partner in the Video and Audio Equipment category for more than 20 years and has recently renewed its partnership with the International Olympic Committee for a further eight years to 2016.

Panasonic's DVC PRO P2 HD Series will be the official recording format for the 2008 Beijing Olympic Games. All international video delivered from the International Broadcasting Centre to the rights holding broadcasters will be produced and distributed in **1080/50i full high-definition (HD)** format. The Beijing Games will be recorded and broadcast entirely with HD systems, a first in the history of the Olympic Games.

Official HDTV of the Olympic Games

**Panasonic ideas for life**

[www.panasonic.ca](http://www.panasonic.ca)

## Clear-Com Covers Olympics for Chinese Broadcasters

Thirteen of China's leading broadcasters have selected Clear-Com products for use within 14 OB vans including two that belong to China Beijing TV (BTV), during this year's Beijing Olympic games.

While each of the 14 OB vans is relying on different combinations of equipment to broadcast the games, all are depending on Clear-Com's Eclipse Digital Matrix to act as the heart of their communications systems, the company reports. Available in a variety of configurations, the typical OB van setup will feature Clear-Com's 32-port Eclipse digital matrix system and I-Series control panels with built in microphone headset connections and four display key modules along with a keypad. Designed with a high level of fault tolerance, Eclipse can offer continuous operation throughout the entire Olympics production with the ability to run 24 hours a day, 7 days a

week, reinforced by built in layers of redundancy measures.

In addition to Clear-Com's Eclipse Digital Matrix frames, many of the broadcasters have opted to add Free-Speak10 digital wireless beltpacks to provide fully integrated communications for the production teams that move throughout the broadcast centres and sporting stadiums. Based on a cellular architecture, the 1.9 GHz system operates on DECT technology that allows up to 10 beltpacks to roam seamlessly between remote active antennas.

Broadcasters who have selected Clear-Com equipment for their OB van operations include:

1. BTV (2 vans)
2. Hunan ETV
3. STV (Shanghai)
4. Jinan TV
5. Guangdong TV
6. QTV (Qingdao)
7. Shandong TV



Chinese broadcast technicians prepare for Olympic coverage, using Clear-Com intercom and communications products.

8. Zhejiang TV
9. Jiangsu TV
10. Dalian TV
11. Yunnan TV
12. Harbin
13. Heilongjiang

Going beyond Olympics coverage, several broadcast stations have already contracted to continue to use the Clear-Com equipment including Beijing TV and Shanghai TV. In addition, CCTV, China's National Broadcaster, has purchased an arsenal of communication

equipment that will make up the communications network during the Olympics that will include two of Clear-Com's Eclipse Omega systems with 120 ports in total. All of this will form the heart of the network at the International Broadcasting Centre (IBC), the hub of all broadcasting activities for the Olympic Games, and CCTV's new Television Culture Centre (TVCC), which will house administration along with news, broadcasting, studios and program production.

## Digital Rapids Streams Out New Broadcast Solutions

Markham-based Digital Rapids is showing a range of professional solutions for multi-format video ingest, encoding, transcoding, streaming, playout and delivery, including new products, new versions and updated software solutions:

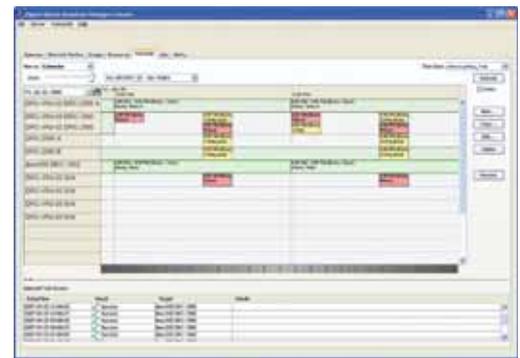
- StreamZ Live - Live streaming media encoders with exceptional quality and reliability for applications from live IPTV channels to webcasting and mobile video. StreamZ Live offers a choice of encoding formats including H.264/AVC, VC-1/WMV, On2 VP6 for Adobe Flash, MPEG-2, and the newest model, 3GPP/Mobile.
- Digital Rapids Broadcast Manager - Enterprise-level management and control application for multiple live streaming encoders. Broadcast Manager simplifies operation with centralized scheduling, monitoring and

remote control while bolstering reliability with automated failover and alerts. New features include mosaic-style multi-channel confidence monitoring and router matrix control for enhanced failover flexibility.

- StreamZ and StreamZHD - Studio media ingest, encoding, transcoding and streaming with hardware-based pre-processing for optimal quality and simultaneous output to multiple formats including AVC/H.264, VC-1/WMV, Flash, 3GPP, MPEG-4, MPEG-2, QuickTime and more.
- Digital Rapids Transcode Manager - Automated, distributed media transcoding for high-volume, multi-format content workflows. Scalable from small transcoding farms to enterprise level operations, Transcode Manager provides centralized management, job monitoring and intelligent load balanc-

ing, increasing throughput while reducing operational costs.

- CarbonHD - HD/SD digital disk recorder (DDR) with integrated HD/SD format conversion, plus support for both uncompressed video and hardware-based JPEG2000 compression in lossless and lossy modes. CarbonHD's integrated software features a new streamlined user interface for managing capture, clip trimming, playlisting and playout.
- Copper C2 - Data delivery software transfers media and data files securely and reliably with a significant speed advantage over FTP, and with outstanding resilience to challenging network conditions. A new network mesh topology increases the efficiency of transfers to multiple recipients with multiple simultaneous connections, parallel transfers and simultaneous send/receive. Digital Rapids recently partnered with Rimage Corporation to integrate their respective production solutions into an automated workflow for DVD encoding and production. The partnership will help strengthen Rimage product recognition among video and media solution providers and continues the company's strategic penetration of the digital media post



The user interface from Digital Rapids Broadcast Manager, Scheduled component, shows control parameters over production and delivery.

production market.

Within an automated encoding workflow enabled by Digital Rapids' StreamZ and StreamZHD media encoding systems or the Digital Rapids Transcode Manager enterprise-level transcoding software, DVDs can be produced from a single media file without menus, or from multiple deck-captured media files with an automatically generated menu and chapter marks.

Upon completion of encoding, the resulting media is automatically sent to an attached Rimage Producer III or Rimage Professional Series digital publishing system with automated disc artwork printing. The combined solution is ideal for DVD publishing applications, ranging from approval and prescreening copies of production content to limited-run distribution and archive.

Both the Rimage Producer III and Professional Series systems support the new workflow integration with Digital Rapids.



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# Video Gear from Manfrotto and Kata



## DVG-57 DV/HDV Guard-57

The new KATA DVG-57 Camcorder Guard provides overall protection while maintaining all working functionality. The design matches itself to the unique shape of the Canon XH-A1 & XH-G1 while transparent windows, dedicated cable connecting slots and quick access pull flaps to buttons and controls allow easy monitoring and operating of all functions. A special flexible viewfinder sleeve is included with the DVG. The front of the DVG is protected yet left open for adding a matbox or lens hood.

## CC-192



The CC-192 is a compact, TST padded case designed to hold a range of small digital camcorders such as Sony V1, Panasonic DVX 100 and HVX 200, Canon XH G1 and XH A1, JVC HD1U and similar sized models.

## CC-197

The CC-197 features ultimate protection and portability for medium digital camcorders such as Canon XL H1 or JVC GY HD100/110/200/250 with accessories and matbox.



## The new MPRO carbon fiber video tripods from Manfrotto: pure performance, superior features.

Manfrotto introduces new professional carbon fiber tripods, in the video range: the new MPRO family.

This new tripod family completes the single tube tripod range in addition to the famous and patented MDeVe tripods range. Thanks to carbon fiber single tube and magnesium die castings, these two tripods bring great stability and load capability together with lightweight and an ergonomic, easy-to-use and compact design. In addition, a new angle selector has been developed for adjusting the leg angle in a quick, easy and precise way, a screw-in 75/100mm adaptor (536 version only) to hold the different industry standard half ball heads and retractable spiked feet, are some of the most important features included in this new high-performing tripod range.

The 536 features: 3 stages, a folded height of 71cm, a maximum extended height of 203cm, can hold up to 25kg and also weighs approximately 3.25kg. In addition, a screw-in 75/100 mm adaptor to hold different industry standard half-ball heads has been included.

The 535 features: 2 stages, a folded height of 73.5cm, a maximum extended height of 171cm, has a maximum weight load of approximately 20kg and weighs in at 2.3kg.

## 526 PROFESSIONAL FLUID VIDEO HEAD



The new 526 Pro Video head directly addresses

the heavy-duty, high-end ENG and EFP video market by offering a feature-packed fluid video head with the ability to support top weight loads of 16kg.

The 526 offers our most precise fluid drag system comprised of three step settings for low, medium and high drag levels, plus the additional no-drag setting for such occasions as snap-pans/tilts. Counterbalancing camera weights between 8 and 15kg. The built-in 100mm half-ball adapts to a number of our tripods with a 100mm receiver, allowing the quick levelling of the camera with the

aid of the bright levelling bubble.

## 519 PROFESSIONAL FLUID VIDEO HEAD

Understanding the problems that professional videographers face, Manfrotto has developed the 519, a compact, yet heavy duty fluid video head capable of accommodating a counterbalance payload from 1.5 kg up to 9 kg. The 519 is the only video head on the market encompassing both interchangeable and adjustable counter-balance springs. Combin-



ing both features will allow videographers to easily interchange a vast array of cameras of various weights as well as quickly fine tune the perfect balance point of whatever camera being used, all with just one head! In addition, fluid drag is easily controlled with a large click-stop numbered knob in seven increments. Drag can be adjusted from the highest possible setting to nearly zero drag, allowing for the finest control through 360° pan and +90° to -90° tilt.

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535/536

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814 Hydrostatic Arm

386B Nano Clamp

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lighting • softboxes • umbrellas

R-106

CC-192

CC-197

DVG57

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## FOR-A Intros 3 Gbps-Capable Switchers



HVS-5000 switchers from FOR-A offer HD/SD conversion, with 3 Gbps support for 1080P signals.

FOR-A introduced the HVS-5000 switcher series, and is offering three new model choices, the HVS-5200 with 2 M/E, the HVS-5300 with 3 M/E, and the HVS-5400 with 4 M/E. All switchers in the series are designed for both live and post production.

The HVS-5000 series offers switching between HD and SD and between varieties of HD formats. An optional up-/down-/converter card also supports mixed input from HD and SD signals. The HVS-5000 series also supports the 3Gbps signal standard, enabling broadcasters to easily and affordably migrate

to the emerging 1080p high-definition format. In addition to HD and SD signals, this switcher series supports: 1080/60p, 1080/59.94p, and 1080/50p.

The switchers can be tailored to meet a variety of applications and can scale to fit an array of existing configurations. The HVS-5400 switcher for example accepts a maximum of 96 inputs and can supply to a total 48 outputs. The HVS-5300 accepts a maximum of 96 inputs and 44 outputs. The HVS-5200 can accept up to 32 inputs and 24 outputs.

The HVS-5000 multi-function switcher brings together a vast array of functions. Users could conceivably operate the four M/E's on the HVS-5400 separately through the independent control feature, in essence transforming one switcher into four. A 2D DVE and chroma key come as standard features. A high-quality chroma keyer can be added as an option to each M/E. In addition to the standard keyer DVE, a 3D DVE can be added. The HVS-5200 can be equipped with up to four channels, and the HVS-5300 and HVS-5400 can have up to eight channels added.

The HVS-5000 series can be equipped with a multi-viewer as an option. The multi-viewer, which can split the screen into 16 units, can have up to two channels. This allows for operation using large monitors and in a reduction in the number of monitors used.

The new switcher series from FOR-A will be available this fall.

## New Price Points for Fujinon Shows HDTV Lenses

Fujinon has a new series of cost-effective HD ENG lenses for 2/3-inch HD video cameras, including three ZA Series HD ENG lenses: including the ZA22x7.6BE HD telephoto ENG lens, ZA17x7.6BE HD standard ENG lens, and ZA12x4.5BE HD wide-angle ENG lens.

Fujinon says it worked closely with major camera manufacturers to engineer true HD lenses designed specifically to enhance the performance of lower cost HDTV cameras.

The ZA22x7.6BE, an HD ENG telephoto lens, has 22 times magnification, a 7.6 focal length at the wide end and 167mm focal length at the telephoto end. A 2x extender is incorporated for extreme telephoto shots. The maximum relative aperture is 1:1.8 from 7.6 through 120mm, and 1:2.5 at 167mm. The minimum object distance is 0.8m from the front of the lens. The lens, which weighs 1.75kg, measures 100x222.6mm.

The ZA17x7.6BE, a standard HD ENG lens, has 17 times magnification, a 7.6 focal length at the wide end and 130mm focal length at the telephoto end. The maximum relative aperture is 1:1.8

for 7.6 through 102mm, and 1:2.3 at 130mm. A 2X extender is standard. The lens, which weighs 1.53kg, measures 85x203mm.

The ZA12x4.5BE, which is a wide-angle HD ENG lens, has 12 times magnification, a 4.5 focal length at the wide end and 54mm focal length at the telephoto end. A 2X extender is a standard feature. The maximum relative aperture is 1:1.8 for 4.5 through 41mm, and 1:2.4 at 54mm. The minimum object distance is 0.3m from the front of the lens. The lens, which weighs 1.93kg, measures 95x237.5mm.

The new ZA Series feature Inner Focus, a servo module with Digi Power, Quick Zoom, One Shot Pre-Set, Cruise Zoom and remote control via RS232.

**New HD lenses from Fujinon are designed for a wide variety of ENG cameras**



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## New Studio and Field HD Camera from Hitachi

Hitachi is touting the features of two new high-performance HDTV cameras.

The first is the Hitachi SK-HD1000 HDTV studio and field production camera which has been significantly upgraded in features and performance since its introduction last year.

The SK-HD1000 offers an impressive 60dB HDTV signal-to-noise ratio at F10.0 and 1100 horizontal TV lines of resolution in a unique two-piece camera platform for maximum configuration flexibility.

The SK-HD1000 is based upon next-generation, high dynamic range RGB 2/3-inch progressive CCDs each with 2.2 million pixels, 14-bit A to D converters, and Hitachi's new digital circuits enabling exceptional depth of modulation, tonal reproduction and highlight handling characteristics. Also, the new Camera Control Unit (CCU) model CU-HD1000 offers exceptional flexibility by providing users with a choice of fibre or digital triax/coax transmission but also an optional cross-converter to make 720p out of 1080i with embedded professional quality digital audio in the HD-SDI outputs.

The HV-HD30 HDTV colour camera featuring advancements in digital signal processing and CMOS imaging sensors

for exceptional picture quality and electronic stability at an attractive price point. The HV-HD30 employs three HDTV, 1/3-inch format, 1.3-megapixel CMOS sensors, and provides both 1080i and 720p HDTV digital signals that are SMPTE292M-compliant up to 1.5 Gbps.

The HV-HD30 can serve as a low-cost HDTV studio sub-camera, as well as high-resolution camera for teleconferencing, point-of-view, observation and monitoring, medical applications, and industrial imaging, such as factory automation, the manufacturer describes. An extremely lightweight and compact camera, the HV-HD30 can also be configured for remote control operation.



Hitachi's new high definition broadcast camera, the SK-HD1000.

Panasonic's new multi-purpose HD camera works in remote and studio applications, and can be fitted with pan and tilt control systems.



## Panasonic Ships Multi-Purpose HC Camera

Panasonic is now shipping its new AK-HC1800N HD multi-purpose camera, featuring a 2/3" 2.2-megapixel 3-CCD.

The HC1800N is ideal for a range of applications from robotic systems for news, traffic or reality television broadcasts, to large venue image magnification for concerts or in houses of worship, to use in special rigs for sports such as a goalpost or goalie cam.

The camera's native 1920 x 1080 resolution is reinforced by an advanced single-channel transfer system and spatial offset processing features that reduce aliasing and provides superior resolution, the manufacturer reports. The full 2/3" camera offers extraordinary low light sensitivity (F10 at 2000 lx), a smear level of -130dB and a modulation factor of more than 45%, so images are impressively crisp, accurate and noise-free.

The camera provides users with precise image adjustments and control functions for unparalleled creative flexibility, including Panasonic's exclusive digital signal processor (DSP) technology with a 12-axis color

matrix that allows for fine adjustments of hue and saturation.

Other valuable features include advanced color enhancing gamma functions including CineGamma curve, which reproduces images that match the look of film, as well as a Dynamic Range Stretch (DRS) function that greatly improves results when shooting high contrast scenes with varying degrees of illumination.

The compact, 3.3-pound camera unit comes equipped with a standard HD-SDI output for flexible operation in remote studio production, sports and tower camera applications. It also features genlock, a mini 15-pin connector for control and power, tally function, iris and zoom/focus controls, motor driven optical filters (Clear, 1/4ND, 1/16ND, 1/64ND), DC 12V operation and a low power consumption of 12 watts.

The HC1800N is compatible with Panasonic's comprehensive line of high performance indoor/outdoor pan-tilt systems, including the AW-PH400, AW-PH405, the AW-PH650 outdoor pan/tilt head, pan-tilt controllers and camera control units.

## JVC Provides Monitors for Olympic Games HD Coverage

Belgium-based Alfacam, a leading European television facilities provider, has installed 566 JVC Professional monitors in their HDTV production vans. JVC monitors will be used as part of Alfacam's HD coverage for the upcoming Summer Olympic Games in Beijing.

Alfacam is in the process of building a new production van called the OB32, which will be used by Euro 1080 high definition channels. The OB32 truck will be equipped with a monitor wall comprised of 32 JVC display monitors. All CRT program and LCD production monitors on this 18-meter production truck will be provided by JVC.

JVC HD monitors include the DT-V24L1DU, 24-inch monitor (1920 x 1080 native HD resolution) and the DT-V20L1DU, 20-inch monitor

(1680 x 945 display), as well as the compact DT-V17L2DU 17-inch unit and the DT-V9L1DU, 9-inch monitor. There are also built-in HD-SDI and DVI-D digital inputs, for direct connection to broadcast and studio sources.



HD and Pro HD monitors from JVC, like the DTV 1710 above, will be used by international broadcasters as part of their Olympic Games coverage.

## SUN TV Orders Harris ATSC

SUN TV has ordered a new Harris Atlas ATSC transmitter to serve as a repeater relaying the network's HDTV programming to the Ottawa market. The 1.2 kW, liquid-cooled Atlas ATSC transmitter with dual Apex Series 8-VSB exciters is scheduled to be on air in September 2008.

SUN TV, a Toronto-based independent television station with the call letters CKXT, reaches audiences throughout Canada through a combination of satellite and cable distribution channels, as well as over-the-air transmission within Ontario, including the Toronto, Hamilton, London and Ottawa markets.

The Atlas ATSC Series of UHF solid-state DTV transmitters, which ranges from 1.25 kW to 13.5 kW, employs liquid-cooled LDMOS FET power amplifier modules, the Apex

Series digital 8-VSB exciter with Real-time Adaptive Correction (RTAC). It also features a redundant control system and robust serial bus broadband architecture that together enable the highest levels of reliability and on-air availability.

"We at SUN TV were attracted to the redundancy, reliability, remote control and performance of the Harris Atlas ATSC transmitter, and also found the new software-upgradeable Harris ATSC modulator to be an excellent feature," said Dennis Firby, director, technical operations for SUN TV/Quebecor Media Inc., in Toronto. "Harris Corporation's depth of ATSC experience is ideal in our early adoption stages, and we look forward to working with Harris as we expand the scope of our broadcast operations."



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## Sony's XDCAM Line-Up Grows

Sony continues to expand its XDCAM family of tapeless acquisition tools with the launch of the XDCAM EX compact camcorder.

In addition to the existing XDCAM HD optical disc-based products, the new XDCAM EX camcorder, the PMW-EX1, offers all the benefits of tapeless workflow, selectable bit rates and outstanding picture performance that users have come to expect with XDCAM HD, coupled with new creative recording features and lens features which will redefine the standard for the professional compact camcorder market.

The PMW-EX1 is a highly compact, robust and high-performance camcorder that uniquely uses newly developed flash memory cards, the SxS PRO, as its recording medium.

The SxS memory card, which realizes 800Mbps high-speed data transfer, enables non-linear capabilities such as instant random access and file-based operation. Equipped with two SxS memory card slots, the PMW-EX1 can record up to 100 minutes of the highest quality HD footage at 35Mbps or 140 minutes at 25Mbps using two 16-GB

SxS memory cards.

The image sensor used in the PMW-EX1 camcorder is a newly developed three x 1/2 type Exmor CMOS sensor, each with an effective pixel count of 1920 x 1080, which produce images in full HD resolution. The low-light capabilities of this new sensor will be of particular interest to all those who need to be able to capture footage in limited lighting applications.

It is switchable between 1080i and 720P with multiple frame recording capability such as 50i, 59.94i, 50p, 59.94p and native 25P, 29.97p and 23.98P. What's more, the PMW-EX1 camcorder offers a "Slow & Quick Motion" capability, which is also commonly known as "over-cranking" and "under-cranking" in the traditional film world, allowing users to create unique looks or special effects of slow and fast motion. Having these functions, PMW-EX1 is on the product line of Sony CINEALTA.

A wide variety of accessories are also available to support effective HD production, including a SxS memory card, USB Reader/Writer, a wide-conversion lens, battery, and charger.

## Maximum Throughput Launches Web-based Editing Service

Montreal's Maximum Throughput has launched MAXedit Web Edition, a new subscription-based online editing service for station-affiliates and broadcast journalists.

solution that's readily accessible whenever and wherever they need to work. Customers can upload SD or HD content including HDV, DVCPRO, MPEG-2, and H.264 formats to the online server and edit it and share it with other editors via a Web browser interface.

Maximum Throughput has also introduced MAXedit Server Edition, a cost-effective, server-based workgroup editing solution for editing uncompressed and compressed multi-resolution content. It allows multiple editors to edit content from a single server in their facility using standard PCs, low-cost MAXedit Server software, and a Web browser without taxing their LAN's bandwidth. MAXedit Server Edition is well-suited to the collaborative workflow of today's fast-paced TV newsrooms, the company describes.



Online editing for SD and HD broadcast material is supported by Maximum Throughput's new Web-based service.

With MAXedit Web Edition, users have a simple, streamlined editing

## Nucomm Debuts HD Ready 7 SERIES ENG Products

Nucomm is introducing its new 7 Series HD ENG/OB product line, capable of HD operation using built in encoding/decoding technology. 7 Series products can be delivered with HD capability or delivered as SD for a future field upgrade to HD via a software key, the company describes. Prior to this announcement Nucomm's HD product line consisted of the CamPac 2 HD/SD wireless camera transmitter and Newscaster DR HD/SD diversity receiver, which have been well received as the premier wireless camera system in the industry. The 7 Series replaces the SD product line as Nucomm's standard product.

All 7 Series products still contain the features and capabilities that have made Nucomm products the first choice of broadcasters worldwide,

such as multiple modulation modes (VSB, COFDM, DVB-S, FM), dual / tri band RF outputs and ease of operation to name a few.

"Nucomm is pleased to be introducing its new 7 Series HD line," says Nucomm CEO Dr. John Payne. "Prior to this launch, with the exception of the CamPac 2 and Newscaster DR, Nucomm products were not capable of HD operation unless you used a third-party HD encoder and decoder product. Through our new 7 Series, we are now able to offer fully integrated products that can be interchangeably used in both HD and SD formats. This eliminates the need for external accessories that would otherwise be required, presenting simplicity and convenience for today's broadcaster."

## Composite Video Units Still a Leader

Leader is expanding the capabilities of its top-of-the-range LV5800 multi-standard broadcast waveform monitor with the introduction of the LV58SER03 composite video input module. The new module, available now, is fully PAL/NTSC compatible and has two 75 ohm BNC inputs plus a loop-through BNC output displaying the selected channel.



Leader LV5800 with integrated LV58SER03.

When integrated into the LV5800, the LV58SER03 can be used to display waveform, vector, picture and relative phase, the manufacturer describes. In phase-display mode, the composite input is compared to the vertical and horizontal sync of an external reference and displayed numerically as well as graphically for easy sync phase management. Luminance can be isolated and displayed using a low-pass filter. Amplitude and time parameters can be measured to very high accuracy using adjustable cursors. When used in combination with Leader's LV58SER01, the new module enables composite and SDI signals to be measured on a single instrument.

Up to four modules can be housed in the LV5800, allowing users to configure the instrument to meet their specific requirements. This latest addition brings the number of modules currently available to six, with features such as SDI input, eye-pattern display generator, composite video input, DVI-I output and a digital audio module.

Leader's LV5800 platform enables up to eight SD-SDI or HD-SDI sources to be monitored and up to four channels to be displayed simultaneously for level, rise-time, fall-time and jitter. Signal feeds can be monitored autonomously, producing an error log with alarm whenever operator-definable thresholds are violated.

Screens and information shown on the LV5800's high-resolution display can optionally be output to any compatible XGA monitor. Audio bargraphs on the LV5800 have selectable dynamic range and peak or average display ballistics. Audio channel order can be remapped, enabling users to create custom displays. Extracted-AES/EBU and analogue monitoring outputs are included. Standard USB memory devices can be used to capture LV5800 screen images, configuration settings and software/firmware updates. Remote control, file transfer and remote error monitoring can be performed simply by connecting a PC to the Ethernet connector on the rear panel of the LV5800.

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**RØDE NTG-3**

The NTG-3 is the result of years of development by RØDE engineers, providing the professional broadcast and film industries with an affordable yet uncompromising microphone.

Using a technology known as RF-bias the RØDE NTG-3 is almost completely resistant to moisture, making it the only option when recording in any demanding environments where condensation is an issue.

In addition to its robust properties the NTG-3 combines very low weight (163g), a durable anti-glare finish and incredibly low handling and self-noise (13dBA) to become RØDE's premier A/V microphone.

When not in use the NTG-3 can be stored away in the included weather resistant aluminium storage cylinder, providing additional protection when travelling and storing the microphone.



**RØDE M3**

Introducing the new M3 from RØDE Microphones—the first in a new series of microphones designed to make high quality recording and performance accessible to a wider audience. The M3 is yet another representation of RØDE's continued commitment to engineering excellence, innovation and world class product design.

"The concept behind the M3 was to create a versatile microphone that displays superior quality, while making it readily available to the new user and seasoned performer and engineer alike." Commented Peter Freedman, Director of RØDE Microphones. "The M3's sleek black design combined with incredibly low handling noise and high-end features makes it the clear winner in its class." Designed with versatility in mind, the M3 is suitable for an incredibly wide range of applications in both live performance and studio recording capacities. Its quality condenser sonic characteristics faithfully reproduce instruments and vocals, while its large dynamic range enables use on both loud and soft sound sources. The M3 is also the perfect microphone for location recording and field reporting. The M3 is competitively priced, allowing for all end users to enjoy a premium product at a reasonable price.

**OLYMPUS LS-10**

Olympus is widely recognized as the worldwide market leader in consumer portable recording.

Having invented the micro-cassette many years ago and pioneered the concept of portable recording, Olympus consumer portable recorders command an incredible 65% of the global market share...

It was only a matter of time before Olympus used their unique resources and experience to create a professional recording device...the LS-10.

Olympus set out to create a high quality, portable stereo recording device that would comfortably outperform all others currently available and be worthy of the Olympus name.

The LS-10 is everything you would expect from a high quality device... and in fact, is already outselling all other manufacturers units in Japan.

The LS-10 is the first in a planned family of professional audio products and accessories from Olympus.



**GALAXY AUDIO TRAVELER TV8**

Galaxy Audio introduces the Any Spot Traveler (AS-TV8); a new AC/battery operated portable PA system. This compact system features an 8" woofer, 1" horn, 50-watt amplifier, and can be configured in a variety of ways to meet your specific needs. Features of the standard Traveler include: 2 Inputs (XLR/1/4" combo with its own volume control and a dual RCA), 2 Band EQ, and a Master Volume. Audio Outputs include a dual RCA Line Out and a Speaker Output to power an additional



speaker. The Universal Power Supply/Battery Charger allows the Traveler to be used anywhere in the world. The Traveler will operate for an unlimited time on AC power and for about 6 hours on just battery power. A full recharge of the batteries takes about 4 hours. The Traveler may be operated while recharging the batteries without affecting the charge time. If a power failure occurs when operating on AC, the Traveler will seamlessly switch over to battery power. The Traveler has a unique "plug in" modular design, which allows optional

Function Modules to be easily added or removed. Optional Modules include Wireless Mic Receivers (with Handheld, Headset, & Lapel options), a CD/MP3 player, and the choice of an Echo/Delay unit or an Audio Link Module, which wirelessly transmits the entire audio mix from one Traveler to any number of satellite Travelers. Since all the Modules are internally wired, no external patching is necessary. The durable ABS enclosure features a convenient carry handle and a provision for standard pole mounting. The Traveler is designed for people who need a portable, lightweight, "all in one" PA system that allows for a quick and uncomplicated setup.

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