A supplement to **Broadcast**Engineering magazine - June 2013

Special Report Hot new products from NAB2013

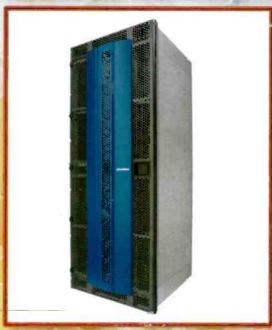


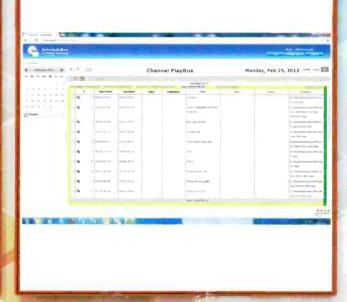






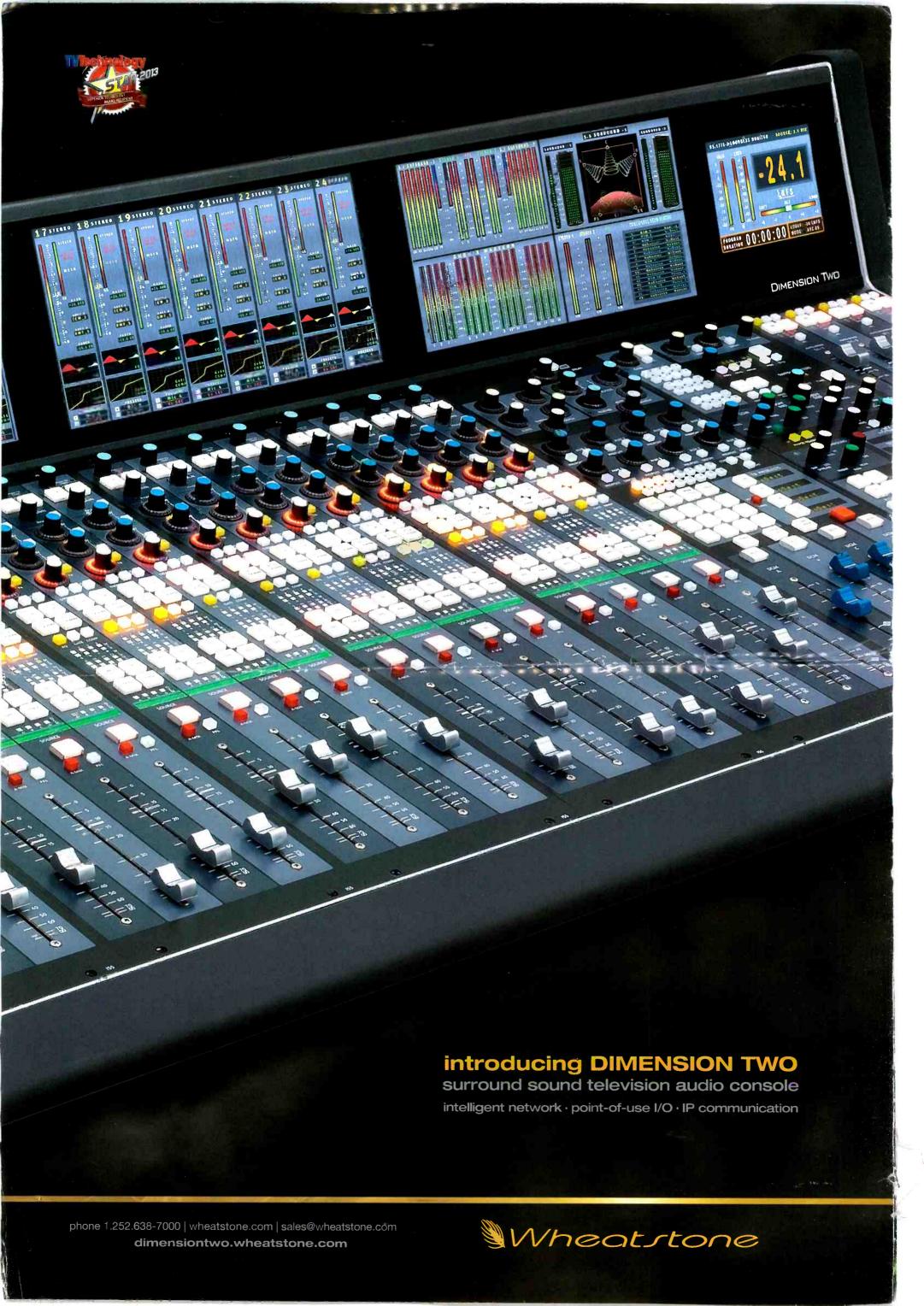














Nothing shoots and delivers footage faster than JVC's new GY-HM650 2.0

- Built-in FTP, WiFi and Verizon 4G LTE connectivity
- Captures images ready for TV, Web and Mobile Devices
- Streams live while recording full HD
- 23x Fujinon autofocus zoom lens with manual controls and OIS
- Three 1/3-inch 12-bit CMOS sensors, F11 sensitivity
- Produces ready-to-edit HD or SD files in multiple formats .MOV (Final Cut Pro™),
 .MP4 (XDCAM EX™), AVCHD and MXF
- SDXC/SDHC memory card recording (2 slots for simultaneous or relay recording)
- Dual Encoder: Recording simultaneously HD + SD or HD + Web (optimized for mobile devices)

For more information on the GY-HM650, talk to the Pros at JVC. Visit pro.jvc.com



©2013 JVC. All trademarks and brand names are the property of their respective proprietors.

The Verizon logo is a trademark of Verizon Trademark Service LLC. LTE is a trademark of ETSI.

See verizonwireless.com/bestnetwork for details. 4G LTE is available in more than 400 markets in the U.S.; coverage maps at vzw.com.



ProHD

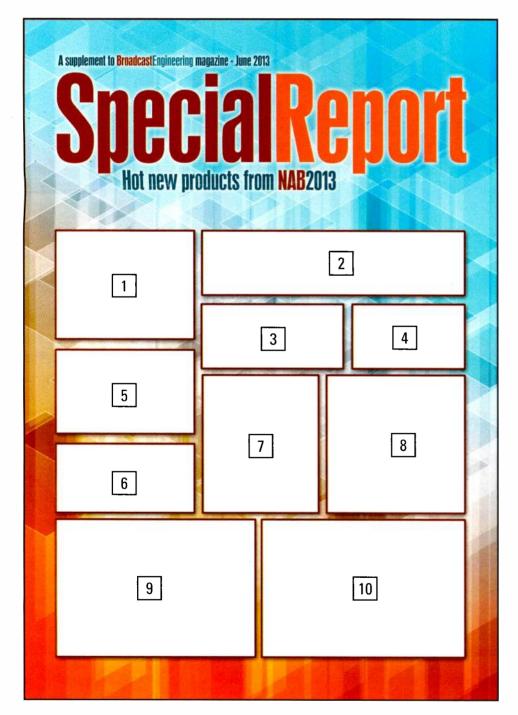
HOT NEW PRODUCTS

Welcome to our NAB Special Report. For more than four days, Broadcast Engineering's writers and editors canvassed the NAB convention show floor to look for this year's hottest products, technology and solutions. Here you'll find some of those product highlights, each of which includes a brief description and company contact information. For expanded listings and additional products, be sure to check out our digital edition. You can subscribe at *onlinesuboffers.com/ginq3xca*.

Likewise, in our June issue of Broadcast Engineering, you'll find even more products from the show that could turn your facility state of the art. The June issue also includes the recipients of our annual Pick Hits awards — the 33 most exciting products shown at NAB, chosen by a group of your peers.

Brow Drick

Brad Dick, editorial director



Editorial Director:

Brad Dick, brad.dick@penton.com

Editor: World Edition:

David Austerberry, editor@broadcastengineeringworld.com

Managing Editor:

Susan Anderson, susan.anderson@penton.com

Production Editor:

Andrew Ward, andrew.ward@penton.com

Production Editor:

Curtis Kitchen, curtis.kitchen@penton.com

Production Editor:

Laura Dixon, laura.dixon@penton.com

Senior Art Director:

Robin Metheny, robin.metheny@penton.com

Technical Consultants:

Computers & Networking - Brad Gilmer Digital Video – Aldo Cugnini

Brand Manager:

Carmen Lake, carmen.lake@penton.com

Sr. Marketing Manager:

Kim Davidson, kim.davidson@penton.com

Director, Online Sales:

Angie Gates, angie.gates@penton.com

Production Coordinator:

Curtis Jansen, curtis.iansen@penton.com

Audience Development:

Sonja Trent, sonja.trent@penton.com



Penton Media, Inc. 249 West 17th Street New York, NY 10011

Chief Executive Officer:

David Kieselstein, david.kieselstein@penton.com

MEMBER ORGANIZATIONS

Sustaining Member of: Society of Broadcast Engineers Member, American Business Media Member, BPA International,

The Missouri Association of Publications

BE US/Canada Subscription Rates: Free/controlled circulation to qualified subscribers. Non-qualified persons may subscribe at the following yearly rates (subject to change): USA - \$59: Canada - \$69: Outside US and Canada - \$99. Digital subscription \$12 worldwide. Customer service can be reached at: broadcastengineering@pbinews.com or by calling 866-505-7173 or 847-763-9504

BE World Subscription Rates: Free/controlled circulation to qualified subscribers. Non-qualified persons may subscribe at the following yearly rates (subject to change): USA - \$59; Canada - \$69; Outside US and Canada - \$99. Digital subscription \$12 worldwide. Customer service can be reached at: broadcastengineering@pbinews.com or by calling 866-505-7173 or 847-763-9504

ARCHIVES AND MICROFORM: This magazine is available for research and retrieval of selected archived articles from leading electronic databases and online search services, including Factiva, LexisNexis and Proguest. For microform availability, contact National Archive Publishing Company at 800-521-0600 or 734-761-4700, or search the Serials in Microform listings at napubco.com.

REPRINTS: Contact Wright's Media to purchase quality custom reprints or e-prints of articles appearing in this publication at 877-652-5295, +00-1-281-419-5725, or penton@wrightsmedia.com

PHOTOCOPIES: Authorization to photocopy articles for internal corporate, personal, or instructional use may be obtained from the Copyright Clearance Center (CCC) at 978-750-8400. Obtain further information at copyright.com.

PRIVACY POLICY: Your privacy is a priority to us. For a detailed policy statement about privacy and information dissemination practices related to Penton Media products, please visit our Web site at www.penton.com.

EDITORIAL and BUSINESS OFFICE: Penton Media, 9800 Metcalf, Overland Park, Kansas 66212 • 913-341-1300 • penton.com

Copyright 2013, Penton Media, Inc. All rights reserved.

KEY ACCOUNTS SALES MANAGER

Carmen Lake (772) 344-6035 Fax: (913) 514-7326 carmen.lake@penton.com

US/CANADA East and classified sales

Julie Dahlstrom (312) 840-8436 Fax: (913) 514-3684 julie.dahlstrom@penton.com

Teri Rivas (561) 358-6077 Fax: (772) 219-4756 teri.rivas@penton.com

REPRINTS

Wright's Media 877-652-5295 +00-1-281-419-5725 penton@wrightsmedia.com

LIST RENTAL SERVICES

MeritDirect Marie Briganti, (877) 796-6947 mbriganti@meritdirect.com Kristen Killingback, (914) 368-1062 kkillingback@meritdirect.com Chris Blohm, (914) 368-1031 cblohm@meritdirect.com

INTERNATIONAL

EuropeRichard Woolley

+44-1295-278-407 Fax: +44-1295-278-408 richardwoolley@btclick.com Israel

Asa Talbar Talbar **M**edia

+972 (77) 562-1900 talbar@talbar.co.il

Japan Mashy Yoshikawa

Orient Echo, Inc. +81-3-3235-5961; Fax: +81-3-3235-5852 mashy@fa2.so-net.ne.jp

Asia Pacific Tan May Ling

InterAct Media & Marketing +65-9623-1405; Fax: +65-6265-3000 tmling@singnet.com.sg

ON THE COVER

- 1. Riedel Communications Artist Level Meter app
- Evertz 3480 Media eXchange Processor
- 3. Linear Acoustic AERO.2000
- 4. Blackmagic Design Production Camera 4K
- 5. AJA Hi5-4K Mini-Converter
- Miranda Kaleido-MX
- Harris Platinum IP3
- 8. PlayBox Technology ScheduleBox 9. NewTek 3Play 4800
- 10. Rohde & Schwarz DVS VENICE

Customer Service: 866-505-7173 or 847-763-9504

Broadcast Engineering, June 2013, Vol. 55, No. 6 (ISSN 0007-1994) is published monthly and mailed free to qualified persons by Penton Media, Inc. 9800 Metcalf Ave., Overland Park, KS 66212-2216. Periodicals postage paid at Shawnee Mission, KS, and additional mailing offices. Canadian Post Publications Mail Agreement No. 40612608. Canada return address: Bleuchip International, P.O. Box 25542, London, ON N6C 6B2, POSTMASTER: Send address changes to Broadcast Engineering, P.O. Box 2100, Skokie, IL 60076-7800 USA. CORRESPONDENCE: Editorial and Advertising: 9800 Metcalf, Overland Park, KS 66212-2216 Phone: 913-341-1300; Edit. fax: 913-967-1905. Advert. fax: 913-967-1904. © 2013 by Penton Media, Inc. All rights reserved.





With dual 8"screens, viewing SD, HD and 2K SDI video on SmartView Duo is twice as beautiful.

SmartView Duo is the perfect compact SDI rack monitoring system for post production, broadcast or live events. It features two beautiful 8" LCD screens which can be remotely adjusted via ethernet. It even includes tally. What's more, it easily handles SD, HD and 3 Gb/s SDI video formats.



SDI monitoring everywhere you need it

SmartView Duo lets you build your own master control room to monitor all cameras for live production. Use it in editing desks to display all your video sources. Incredibly

compact, it's also great for broadcast vans. You can even install SmartView Duo into portable monitor racks to build lightweight flyaway kits.



Intelligent Ethernet control

Forget about using little screwdrivers in an attempt to match all your monitors. Now you can conveniently adjust and match every monitor remotely from your laptop or

desktop. Simply connect SmartView Duo to your ethernet network and use the included Mac or PC software.



Greater SDI compatibility

You can rely on SmartView Duo to support multiple SDI video standards, including SD, HD and 3 Gb/s SDI formats.

It was designed to meet the needs of both broadcast and post production professionals. On top of this, it supports advanced video formats like 1080p HD and 2K SDI.



Mount it anywhere in racks

SmartView Duo can be mounted anywhere in equipment racks, even in the extreme top. That's because SmartView Duo rotates completely upside down for optimum viewing angle.

It will instantly sense the screen rotation and automatically flip the images without any need for adjustment.



\$695

MULTIVIEWERS

MIRANDA KALEIDO-MX, KALEIDO-MODULAR-X



Deliver "any source, anywhere" processing that enables the flexibility to place any signal on any display at any size without blocking or bandwidth limitations; sources can repeat on up to four different displays without the need for an additional multiviewer.

www.miranda.com

MXF CLIP SERVER FOR-A MBP-120SX

Two models, MBP-120SX and MBP-125SX, support ingest, playback and playout applications; can capture files from an external XDCAM drive or network drive, converts HD/SD-SDI signals to MXF files in real time, and support up to eight channels of embedded audio.

www.for-a.com

QUAD-SPLIT MONITORS

SNELL IQQSM

Enable local monitoring of four 3G/HD/SD-SDI input signals along with bar graph displays of eight channels of embedded audio; capable of providing the four signals on a single HDMI or DVI output to enable integration with modern flat-panel displays used extensively in local monitoring applications.

www.snellgroup.com

SUITE OF ADAPTIVE BIT-RATE SOLUTIONS

HARMONIC PROMEDIA

For multiscreen processing and delivery; has been enhanced with HEVC and Ultra HD support, increased synergy with the Harmonic MediaGrid shared storage system, and support for closed captioning, regional blackouts and Nielsen ID3 tagging.

www.harmonicinc.com

CONSOLE

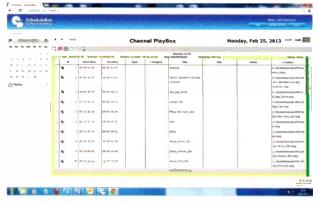
SOLID STATE LOGIC C10

Smaller version of the C100 is designed for onair applications in fixed installations and OB vehicles, offering the same performance and reliability for a smaller budget; choice of fader configurations and range of I/O options suited to a wide spectrum of applications and budgets.

www.solidstatelogic.com

ADVANCED SCHEDULE CREATION

PLAYBOX TECHNOLOGY SCHEDULEBOX



Web-based client/server system for creating and managing advanced schedules; user-friendly GUI handles template-based TV broadcast planning, offering straightforward management of single or multiple TV channels; program schedules with daily, weekly or monthly views, and program block management per TV channel, are available.

www.playbox.tv

ROUTER

HARRIS PLATINUM IP3

Accommodates separate video, audio and data paths within the same frame; can scale to multiframe configurations for large broadcast and media operations using a common architecture; features intelligent architecture, which maximizes on-air security.

www.harris.com

4K CAMERA

BLACKMAGIC DESIGN PRODUCTION CAMERA 4K

High-resolution 4K digital film camera with innovative large Super 35 size sensor and professional global shutter; combined with precision EF mount optics and high-quality Apple ProRes 422 (HQ) file recording; supports the new 6G-SDI video connection for use in live video production.

www.blackmagicdesign.com

MPEG-4 AVC HD ENCODER

PATH 1 PIXIE



Simplifies point-to-point and point-to-multipoint transmission of high-quality video using the new MPEG-DASH streaming media standard; enables content providers, third-party operators and post-production houses to transmit professional-quality HD-SDI video over any IP network to any device cost-effectively.

www.path1.com

LARGE-FORMAT CONSOLE WHEATSTONE DIMENSION TWO



The audio control surface for television is built on the Bridge Router platform; accepts analog, AES, MADI and HD/SDI input signals; provides the ability to send any source or console bus to any audio network destination; features up to 96 input channels on two pages, 16 stereo submixes and 16 stereo aux sends, as well as 16 dedicated mix-minus busses, plus up to 64 channel busminus (N-1) outputs.

www.wheatstone.com

DIGILINK VIDEO TRANSPORT CHASSIS

ARTEL VIDEO SYSTEMS DL4360X

Features an advanced design that combines modular-based transport functionalities with simultaneous internal routing of both video and Ethernet traffic; chassis eliminates the need for external cross connects, streamlining the routing and rerouting of video and Ethernet traffic.

www.artel.com

MULTI-CAMERA REPLAY SERVER

NEWTEK 3PLAY 4800

Designed to give sports producers unprecedented access to redundant capture, sophisticated visual effects, live replay switching, high-quality slow-motion and social media publishing — all within a single, turnkey system; provides out-of-the-box integration with Facebook, Twitter and YouTube.

www.newtek.com

CAMCORDER

JVC GY-HM70

Cost-effective camcorder delivers 60p full-HD images; features a 1/2.3in, 12-MP CMOS imager combined with a FALCONBRID high-speed processor; records 1920 x 1080 footage in the AVCHD Progressive format at 28Mb/s to dual solid-state memory cards.

pro.jvc.com

CONNECTOR

FISCHER MINIMAX

Includes pre-cabled plugs and prewired receptacles; features combination of 24 mixed pins — 20 signal (0.5A) and four power (5A); can withstand more than 5000 mating cycles; users can select from push-pull, quick release or screw lock connections.

www.fischerconnectors.com



Transition from tape to file-based workflows quickly and easily.

ProRes Avid DNxHD®



If you're making the transition away from tape, Ki Pro Rack delivers the recording and playback capabilities you're used to in a compact 1RU size that goes beyond a traditional VTR. With support for all quality levels of Apple ProRes 4:2:2 and Avid DNxHD files, rugged, affordable storage options and advanced network connectivity, Ki Pro Rack provides the flexibility you need.

Integrates easily

110000000

Ki Pro Rack fits right into your existing cabling and routing with professional connections including; SDI, HDMI, component analog, AES, analog and embedded audio support, LTC input/output, RS-422 control, Genlock and LAN networking.



Standalone operation

Anyone familiar with the operation of a tape deck will feel immediately at home with Ki Pro Rack. Front panel controls and an intuitive interface allow standalone operation and gets your staff up to speed right away.



Accelerate your production

Capture high-quality Apple ProRes and Avid DNxHD files at all quality levels direct to Ki Pro Rack's removable Storage Modules, eliminating time-consuming logging and capturing from tape. Files are ready to use in your NLE immediately.



Find out more at www.aja.com



CROSS-MEDIA SCHEDULING SYSTEM

MEDIAGENIX WHATS'ON GENERATION 4

Manages and optimizes cross-media broadcasting, schedule and content lifecycle process; enables users to launch new channels or set up additional on-demand, cost-effective services, while optimizing their workflow and infrastructure.

www.mediagenix.tv

DISPLAY MONITOR

TVLOGIC LUM 560W

56in, 10-bit, 3840 x 2160 display monitor is designed for UHDTV broadcast and industrial monitoring applications; features DVI, HDMI and SDI 4K Mode hot key; has monitor control using RS422; supports 3G-SDI Level A and Level B.

www.tvlogicusa.com

WEB-BASED ARCHIVE PORTAL

SGL FLASHBROWSE

Allows users to perform archive, search, browse and restore operations from any machine on network running a compatible Web browser; captures low-res proxy versions of clips as they are archived; includes a proxy viewer within the browser window, so that the user can search for and view clips before restoring them.

www.sglbroadcast.com

NTP TIME SERVER

ESE ES-289E

Provides a simple method of putting accurate time information onto a network and references either ESE or SMPTE/EBU time codes; NTP output is provided on a 10/100 Base-T Ethernet connector and is now IPv4/IPv6-compatible; NTP clients can authenticate the NTP server with MD5 or SHA1 Symmetric Key Authentication.

www.ese-web.com

COMPRESSION PLATFORM

EVERTZ 3480 MXP



Designed for multiscreen (MPEG-2/H.264) content delivery; offers enhanced de-interlacing, resolution change and frame-rate conversion support; also features HEVC technology for operators, OTT and 4K Ultra HD applications.

www.evertz.com

SIGNAL PROCESSOR

ROSS VIDEO OPENGEAR 3.0

Features companion control system — Dash-Board 6 with panel builder; features a new OG3-FR frame with 450W power supplies that doubles the power budget and adds GigE connections to every slot in the frame.

www.rossvideo.com

EXTENDER

AVITECH SENECA X-HDUTP

Extender with power-over-Ethernet (PoE) allows transmission of HDMI and VGA up to 100m at 1080p; extends keyboard/mouse and IR over standard Cat-5e/6 UTP Ethernet cables; 1RU chassis houses six modular HDMI or VGA input cards.

www.avitechvideo.com

NONLINEAR PRODUCTION SYSTEM

GRASS VALLEY GV STRATUS

Designed to deliver greater workflow efficiency by enabling users to work collaboratively and accomplish tasks in parallel; new release includes new tools to increase workflow efficiency through automated, rules-based file operations; also introduces the EDIUS XS nonlinear low-resolution proxy editor.

www.grassvalley.com

FULL DUPLEX WIRELESS INTERCOM SYSTEM

EARTEC COMSTAR

Designed for production teams that need to communicate and work with their hands; not voice-activated, and no delay when transmitting; allows up to eight wireless users to talk simultaneously within an 800yd range as if on a regular telephone; no FCC license required.

www.eartec.com

MULTISCREEN ENCODER

DIGITAL RAPIDS STREAMZ LIVE 4000EX



Adds increased fault-tolerant redundancy and expanded control capabilities to the benefits of existing StreamZ Live models; designed for live and linear multiscreen encoding applications from IPTV and OTT services to high-profile and mission-critical live streaming deployments.

www.digital-rapids.com

ULTRAWIDE LENS

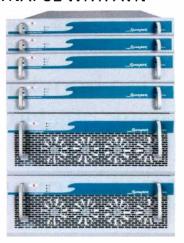
FUJINON XA99X

Features an enhanced version of Precision Focus Assist (PF), which automatically adjusts focus; this ensures accurate focus on HD images; includes flange focal distance adjustment, a MOD of 1.2m and a macro function for objects as close as 97mm; covers a 31.5mm diagonal sensor size.

www.fujinon.com

AUDIO VIDEO BRIDGING

AXON SYNAPSE WITH AVN



AVB-enabled technologies will be incorporated into Axon's market-leading Synapse range of interfacing and conversion products beginning 2014; enables a hybrid SDI and compressed IP world today and an uncompressed AVB world tomorrow.

www.axon.tv

COMPACT TRANSMITTER

HARRIS BROADCAST PLATINUM VAX

Meets VHF analog or digital power requirements; most suited for low-power transmitting stations and gap-filler applications; is especially useful for covering specific regions in extended markets or difficult terrains; 2RU chassis design.

www.harris.com

500W TRANSMITTER LINEAR INDUSTRIES AT71-500-11

 $4RU \times 19in \times 26in$ drawer size reduces installation footprint; nine temperature-controlled cooling fans provide optimal performance and longer life for critical components; features include scheduler software to run corrections/measurements at scheduled times, internal GPS receiver and selectable timebase reference.

www.linear-tv.com

IP ENCODERS

FUJITSU

New firmware release is designed to dramatically improve end-to-end latency for the IP-9610, IP-900 and IP-920 HD/SD H.264 video encoders/decoders while delivering an exceptional picture quality at reduced bit rates; H.264 video encoders/decoders are now capable of operating at less than 99ms back-to-back latency.

www.fujitsu.com

ONLINE VIDEO MANAGEMENT PLATFORM

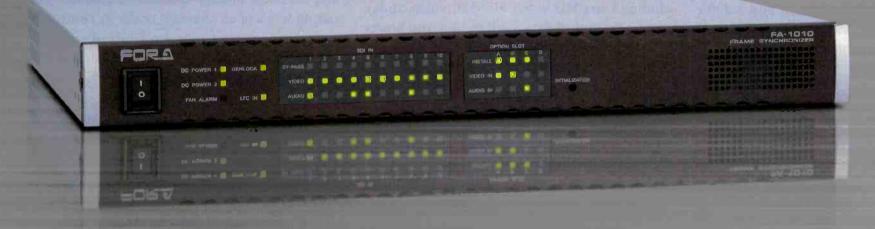
HAIVISION VIDEO CLOUD

Designed to simplify live and on-demand content publishing workflows; provides an end-to-end solution from live encoding of events, through cloud transcoding, automated video content management and publishing, across an Akamai CDN and ultimately to any connected device.

www.haivision.com







World Class Frame Synchronizers

High Density: 10 Sources/10 Outputs in 1 RU



3G/HD/SD MULTI CHANNEL SIGNAL PROCESSOR

FA-1010 NEW

- 10 x 3G/HD/SD-SDI inputs/outputs
- Supports 3G-SDI/HD-SDI/SD-SDI signals
- Supports 16 embedded audio signals on each channel (160 embedded audio)
- Powerful frame synchronizer performance
- Powerful audio process (multiplex, de-multiplex, re-mapping, SRC, etc.)
- Mutual conversion between 3G-SDI Level A and B
- 10 x color correctors
- 10 x video and audio delay circuit
- Web based monitoring and control
- Various Cptions: analog video I/O, digital audio I/O, analog audio I/O, loudness control, Dolby E encoder/decoder, GPI I/O, and redundant power supply

FOR-A for a 4K Future

- Future proof 4K capability (TBA) and more.

Multipurpose Two Channel Signal Processor



3G/HD/SD DUAL CHANNEL SIGNAL PROCESSOR

FA-9520 NEW

- "Dual Channel Mode" and "FA-9500 Compatible Mode"
- Supports **3G-SDI/HD-SDI/SD-SDI/analog composite** signals
- Supports 16 embedded audio, 8 AES/EBU and 4 analog audio signals
- Up/Down/Cross/Aspect converters
- High-quality A/D converter and D/A converter
- Powerful frame synchronizer performance
- Color corrector, Logo generator
- Automatic Video Optimizer (AVO) function
- Video and audio delay circuit
- Web based monitoring and control
- Optional loudness control and more.

www.for-a.com

- Head Office (Japan)

- USA Southern (FL)
 Latin America & Caribbean (FL)
 Canada (Toronto)

- Italy (Milan)
 Middle East-Africa (Dubai)
 Korea (Seoul)
 China (Beijing)
- Tel: +44 (0)20-8391-7979
 Tel: +39 02-254-3635/6
 Tel: +971 4-887-6712
 Tel: +82 (0)2-2637-0761
 Tel: +86 (0)10-5170-9870

Tel: +1 714-894-3311 Tel: +1 201-944-1120

Tel: +1 305-931-1700 Tel: +1 305-931-1700 Tel: +1 416-977-0343

Continuous Innovation

AUDIO/LOUDNESS MANAGER

LINEAR ACOUSTIC AERO.2000

Features AEROMAX loudness control with patented Linear Acoustic Intelligent Dynamics hybrid metadata processing for loudness control, upmixing via UPMAX II with full-time downmix, optional Dolby encoding/decoding and Nielsen Watermarking, plus extensive I/O features.

www.linearacoustic.com

FRAME-ACCURATE MEDIA PLAYER

DIGIMETRICS HYDRA PLAYER

Universal frame-accurate player for all file-based media; uses same demux/decode engine as Aurora QC suite, so anything that can be tested can be played back; presents audio in frame-accurate waveform view; caption and subtitle data can be overlaid on video frame.

www.digi-metrics.com

ROUTER

UTAH SCIENTIFIC UTAH-400 SERIES 2

Newest member of the router series is a 72 x 72 frame that extends the family's feature set, which includes embedded signal processing to smaller-matrix applications; flexible architecture makes it configurable in a full range of sizes, from 128 x 12 to 12 x 128 in addition to the traditional square matrix layout.

www.utahscientific.com

DECODER

APANTAC TAHOMA IP-4/8



Can handle up to eight streams at one time; compliant to ISO/IEC 13818-1 MPEG-2 Transport Stream specification; can demultiplex incoming SPTS/MPTS; supports AFT, WSS; other features include supporting both 50Hz and 60Hz, MPEG-2/H.264 decode and output resolution up to 2048 x 1080 (including 1080p).

www.apantac.com

REAL-TIME COMPOSITING SYSTEM

VIZRT VIZ ENGINE 3.6.0

New version introduces IP streaming workflow, enables broadcasters to simultaneously stream content for Web and mobile devices while sending content live on-air with traditional SDI workflows; adds additional clip channels, supporting up to 16; adds multi-touch protocols;.

www.vizrt.com

REMOTE CAMERA POWER

BHV BROADCAST VIDEO GHOST

Provides 65W of power at 12V of phantom power to cameras; uses V-lock universal mount; works with SD or HD signals; can also be used to power composite-to-SDI converters at the camera.

www.bhvbroadcast.com

LOGGING AND MONITORING SYSTEM

VOLICON OBSERVER 7.1

TS MPEG transport stream logging and monitoring system has been enhanced to accommodate an even broader array of inputs; supports ASI, QAM, 8-VSB, DVB-T/T2 and DVB-T MPEG TS interfaces; available on all Observer TS systems — including Enterprise, Pro and Scout systems.

www.volicon.com

FIBER TRANSPORT SYSTEM

MULTIDYNE SILVERBACK-4K

Camera-mounted fiber transport system supports 4K digital television; enables users to seamlessly transmit any camera signal — including Ultra HD video, HD-SDI video, audio, intercom, control data, GPIOs, tally and power — over a single hybrid copper and fiber cable.

www.multidyne.com

ROBOTIC HEAD

VINTEN RADAMEC READY TO USE CAMERA HEAD

Incorporates new CP4 control panel with Fusion FHR-35 pan-and-tilt head and easy-to-use touchscreen; controls up to four heads and stores up to 40 pre-set shots; upgrades to eight heads and 200 pre-set shots.

www.vintenradamec.com

LED LIGHT

FREZZI SKYLIGHT

Daylight-balanced light provides 650W output with 75W draw; weighs 4lbs; weather-proof housing makes it well-suited for "run and gun" shooting; dims without color shift; 12VDC to 36VDC input using A/B or V-mount batteries, 30V belt/power packs or AC power supplies.

www.frezzi.com

PLUG-IN PANEL

EVS IP LINK



Allows users to search, preview, edit and import media from IPDirector nearline storage into Adobe PremierePro; the search facility will allow for quick text and advanced search for clips, edits and logs, which can then be previewed directly from IP Link and imported into Adobe Premiere Pro by a drag and drop function without being moved or copied.

www.evs.tv

CAPTIONING SYSTEM

ENCO ENCAPTION3

Real-time, live automated captioning system does not require any voice training; technology features an enhanced speech recognition engine designed to deliver closed captions in near real-time with never before seen accuracy; available as a monthly lease; is offered in more than 20 languages.

www.enco.com

AUTOMATIC MIXING FUNCTION

CALREC AUTOMIXER

Has been added to the Bluefin2 signal-processing engine, the driving force between the Apollo and Artemis mixing consoles; attenuates the output levels of all channels under its control to maintain consistent program levels in environments with multiple open microphones and unpredictable audio content.

www.calrec.com

ON-AIR GRAPHICS PRODUCTION

AVID MOTION GRAPHICS 2.5



Next-generation platform of on-air graphics production for broadcasters, sports teams and media producers; includes a new dual-channel configuration option and stand-alone playout engine to increase deployment flexibility and speed graphic workflows, to create stunning imagery and to get work quicker to air.

www.avid.com

XDCAM HD 422 CAMCORDER

SONY PMW-400



Capable of MPEG HD422 50Mb/s recording; offers 3 Dimensional Noise Reducer (3DNR) technology to accurately detect and process images to reduce noise, achieving an S/N ratio of 60dB; supports MPEG:2 HD422@50Mbps, HD420@35Mbps/25Mbps, MPEG IMX@50Mbps and DVCAM.

www.sony.com

COMPACT ROUTER

ENSEMBLE DESIGNS BRIGHTEYE NXT 430

Has 11 BNC connectors that can be configured as either inputs or outputs; has two SFP modules slots (small format pluggables) that may be populated for additional inputs or outputs — fiber or electrical; Embrionix-powered SFPs, about the size of a stick of gum, let the user choose the type of input or output connectors needed, including mini BNC and optical.

www.ensembledesigns.com

SUBTITLE TRANSMISSION SYSTEM

SCREEN SYSTEMS POLISTREAM BLACK 4K

Uses the latest software and hardware to offer a more condensed subtitling solution, as well as lower power consumption and energy-saving technologies; Screen has harnessed the scalability of the system to transmit quality 4K subtitles in readiness; features an improved visual interface, software attack protection, multiple item selection via tagging and improved logging.

www.screensystems.tv

HIGH-ISOLATION STAGE MIC

DPA D:FACTO II

Is able to use same mic head for both wired and wireless use; phantom-powered DPA handle offers state-of-the-art electronic design with a total transparent sound and SPL handling above 160dB; employs supercardioid directional pattern; has dynamic range of about 120dB, typically.

www.dpamicrophones.com

4K MINI-CONVERTER AJA HI5-4K MINI-CONVERTER



Provides simple 4K monitoring connection using four 3G-SDI outputs to 1.4a HDMI inputs; enables a flexible 3G/HD-SDI to HDMI conversion for HD workflow; audio embedded in the SDI input is passed as embedded audio in the 4K HDMI output.

www.aja.com

LIGHT

VIDESSENCE VIDNEL VN100

Adjustable beam Fresnel with 100W output at 3200K color temperature (5600K optional); flick-free dimming without color shift; color rendering at 98 CRI; passive cooling avoids noise and failure of internal fans.

www.videssence.tv

ANTON/BAUER QRC-4K-S Attaches instantly to Sony F5/F55 CineAlta

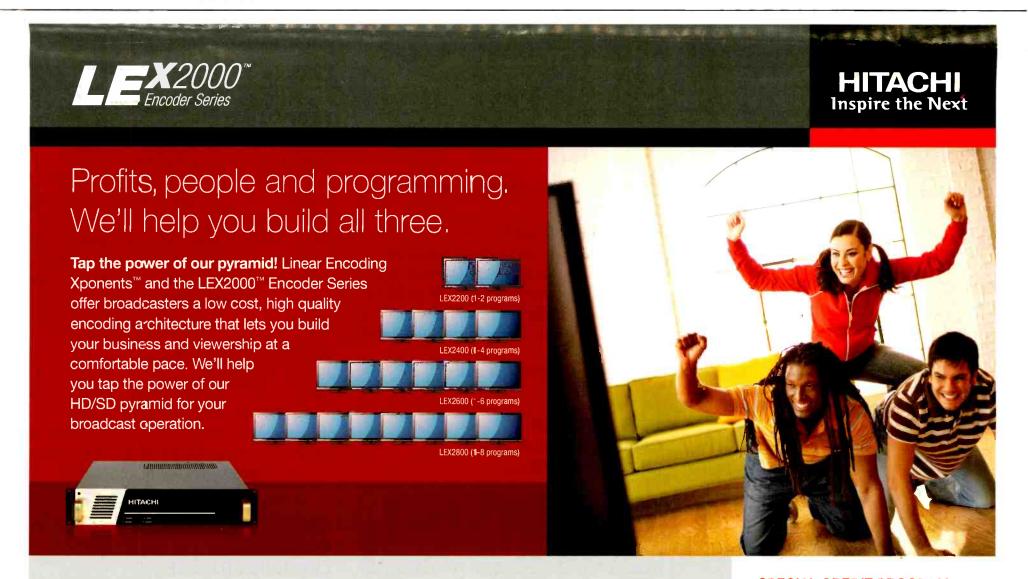
POWER SOLUTION

GOLD MOUNT

cameras to accept Anton/Bauer batteries and offer reliable power; contains three PowerTap outputs for powering additional accessories to help users bring 4K production to life; is also compatible with the Sony AXS-R5 recorder.

www.antonbauer.com

ADVERTISERS MARKED IN ORANGE



Not just digital. Better digital."

Hitachi Kokusai Electric America, Ltd. | 2531 Technology Dr., Suite 310 | Elgin, IL 60124, USA | 1.847.428.5793 | Iinear-tycom

©2013 Hitachi Kokusa Electric America, Ltd. All rights reserved. We strive to present accurate product data but reserves the right to change specifications without prior notice. Our products, features and technology may be covered by one or more U.S. or foreign patents. *Subject to credit approval and prevailing interest rates at time of takedown.

SPECIAL CREDIT PROGRAM FOR BROADCASTERS:

PRIME or 3.5% today*

Call Now! 877-428-5793 (Ask fcr Dago)

IPAD APP FOR ARTIST DIGITAL MATRIX INTERCOM

RIEDEL COMMUNICATIONS ARTIST LEVEL METER APP



Can monitor and control up to eight freely assignable audio inputs of an Artist Digital Matrix Intercom system; gives the intercom administrator a new way to manage the four-wire input levels of a system without having to be in front of a computer running the Director configuration software.

www.riedel.net

MEDIA PRODUCTION HUB

ROHDE & SCHWARZ DVS VENICE



Future-ready Media Production Hub for highly optimized file-based TV production workflows; manages classic video server tasks such as HD-SDI ingest and studio playout combined with intelligent file-based features such as file ingest, transcoding and media transfer operations.

www.dvs.de

AUDIO PROCESSOR

TC ELECTRONIC DB6

Keeps loudness within broadcast compliance standards without sacrificing quality; handles up to three SD/HD/3G streams in a single-rack space unit; measures and adjusts audio formats, loudness and true-peak level automatically while logging stats.

www.tcelectronic.com

MICROPHONE

AUDIO-TECHNICA AT5040

Four-part rectangular element uses four matched diaphragms for large-diaphragm performance without decreased transient response; internal shock mounting decouples capsule from body; includes AT8480 shock mount for additional isolation.

www.audio-technica.com

AVID EDIT STORAGE **MANAGEMENT**

MARQUIS BROADCAST PROJECT PARKING VERSION 3

Designed for assisting editors and facilities to manage their Avid edit storage more effectively; enables editors to analyze all the projects and media on their edit storage by size, project, location, age, duplicated or orphaned files; then they can archive files to second-tier storage, delete unused media at the touch of a button, take snapshots of versions of projects or move from one location to another.

www.marquisbroadcast.com

HD PRODUCTION CAMERA

HITACHI SK-HD2200 CAMERA

Uses 2/3in, 1080/60p, progressively scanned, providing (Ultra-Advanced) UAIT-CCDs 1,100TVL standard resolution; >60dB signal to noise ratio (1080/60p without noise reduction); 38-bit per pixel per RGB channel processing technology; switchable between progressive and interlaced signal processing.

www.hitachikokusai.com

AUDIO LOUDNESS CONTROL

EMOTION SYSTEMS EFF 3.0

Features Dolby E, True Peak, Short Term and Momentary Correction using innovative DNA (Dynamic Normalization Algorithm) and loudness range control; also provides multi-profile loudness correction within a single file for multilanguage, international delivery requirements.

www.emotion-systems.com

BROADCAST AUTOMATION SYSTEM

RUSHWORKS A-LIST

Provides intuitive, single or multichannel SD/ HD output for broadcast, PEG channels and Internet TV; features include DTMF and GPIO triggers, drag-and-drop scheduling, Auto-Loop, Auto-Fill, Auto-Bug, File Segmenting, and multiformat playback.

www.rushworks.tv

1RU ROUTER CONTROL PANELS

SNELL LUNA SERIES



Includes four LED models and two LCD models; feature an ultra-shallow rack mount depth of less than 2in; can be powered from an external +12V DC supply, making them ideal for OB trucks or other installations where space and power are at a premium; compatible with all current Snell routers and soft panels.

www.snellgroup.com

CONTENT INTELLIGENCE **MODULE**

TMD MEDIAFLEX CI

Delivers intelligent process automation and business analytics, together with workflow development tools, as well as adding the capability to understand and monetize the underlying content flows in an organization to efficiently manage the entire media lifecycle in a way that is both readily understood and readily appreciated by all media businesses.

www.tmd.tv

IP STREAMING MONITORING

DIGITAL NIRVANA MONITOR IQ 3.2

Update includes support for Web captioning, program guide extraction; Hybrid Appliance allows mixing ATSC/QAM, ASI and HD-SDI in one system; Infrastructure Self-Check monitors various system parameters — including CPU, RAM and power levels — and issues alerts when maintenance is required.

www.digital-nirvana.com

CLOUD-BASED STORAGE

DELUXE ENTERTAINMENT SERVICES MEDIACLOUD

A broadcast service delivering a next-generation cloud-based playout, media asset management and delivery platform; uses cutting-edge nonproprietary IT technologies and state-of-the-art media tools; comprises three elements: Portal, Playout and Delivery.

www.bydeluxe.com

MODULATOR

CONTEMPORARY RESEARCH QMOD HDTV MODULATOR

Enables distribution of digital signage and HD subscriber sources using existing broadband coax cabling; merges audio with video from stereo, digital optical and coax inputs; creates an HD 720p/1080i or SD 480p/480i MPEG-2 stream with MPEG-1 stereo audio for broadcast.

www.crwww.com

SHOCK MOUNT

K-TEK NAUTILUS

Spiral-shaped design minimizes number of contact points between microphone suspension mount and rest of mount; sliding mounts accommodate shotgun microphones of most sizes.

www.ktekbooms.com

ON-AIR GRAPHICS PLATFORM

CHYRONHEGO GRAFFITI

Two models are available — Graffiti SDI, a 1RU system with the Lyric PRO graphics creation software, and Graffiti SDI Flex, a backpack-ready character generator with all the features of Graffiti SDI; both models are designed for live news, sports, entertainment and OB productions.

www.chyron.com; www.hego.com

VIDEO EDITING SHARED STORAGE SYSTEM

SMALL TREE GRANITESTOR TITANIUM4

Is a four-drive system supporting 2TB, 3TB or 4TB disk drives; equally effective in studios or on the move with a mobile production crew; is configurable from 8TB to 16TB of storage capacity, while driving up to nine streams of ProRes 422.

www.Small-Tree.com

ROBOTIC JIB

HYBRID CHROME

Compact robotic jib allows for movements for regular and virtual studio shots; features large set of assisted movements, such as auto tracking and zoom compensation; suited for motion control and special effects; accommodates payloads of up to 22lbs.

www.hybridtv.tv

AV IP STREAM AND SDI SIGNAL MONITOR

CINEGY MULTIVIEWER 9.5

Enables broadcasters and production houses to monitor streams from satellites, camera feeds, playout devices and other sources locally and remotely; enhancements include Dolby Digital and Dolby E decoding with adaptive meter display, 608/708 VANC Closed Caption decoding support, and SMS alert notification.

www.cinegy.com

DTH OVER IP GATEWAY

INTERNATIONAL DATACASTING DIGITAL TATTOO

Enables providers to target high-density housing using satellite transmission to gateway, which then distributes service over IP to each unit; allows multiservice bundles, including IPTV, telephone and Internet, to capture increased average revenue per user.

www.datacast.com

ADVERTISERS MARKED IN ORANGE

LED FRESNEL

LITEPANELS SOLA 12

Designed to offer a powerful output of daylightbalanced illumination approaching that of a traditional 2K incandescent Fresnel, but with the energy efficiencies and cost saving benefits of Litepanels LED technology; a 12in Fresnel lens emits an even collimated light source that can be focused and controlled for maximum flexibility.

www.litepanels.com

PORTABLE VIDEO SWITCHER

LIVESTREAM STUDIO HD 500

Provides live video mixing for multi-camera productions; features up to five HD/SD SDI inputs and five video outputs (HD/SD SDI, HDMI, component, composite and s-video); switcher is full field-rate multiview to allow users to preview their cameras in real time with audio levels.

new.livestream.com

MANAGEMENT SOFTWARE

NEVION VIDEOIPATH 3.0

Provides comprehensive media transport, signal processing and monitoring to enable streamlined, fully managed media services; hardware components include Ventura transport modules, high-quality, low-latency JPEG 2000 codecs; built on a distributed database and distributed processing model.

www.nevion.com

FIBRE CHANNEL HOST BUS ADAPTERS

ATTO TECHNOLOGY CELERITY SERIES

Capable of data rates up to 16Gb/s and transfer rates up to 6400MB/s; connects via PCIe 3.0 bus; latency-management features include Advanced Data Streaming (ADS) Technology; ships with benchmarking utility so that performance can be verified.

www.attotech.com

FIBER-OPTIC **PRODUCTION SYSTEM**

ARRI ALEXA FIBER REMOTE OPTION (FRO)

ALEXA camera system adapted for multicamera broadcast studio or OB production; certified system uses Telecast Fiber Systems CopperHead to connect via SMPTE 311M fiber, allowing remote control of iris, color balance, black levels, gamma, shutter, knee, gain and detail.

www.arri.com

INTERCOM SYSTEM

CLEAR-COM HELIXNET 1.1



Extends digital partyline communications over a network among a production's field users, mobile trucks and studio headquarters cost-effectively and efficiently, without compromising the audio quality; new version can link up to five HMS-4X main stations and up to 100 HBP-2X digital beltpacks via Ethernet to build larger partyline intercom systems.

www.clearcom.com

REMOTE FILE BROWSING

ASPERA FASPEX 4.0

Brings remote file browsing, transfer, synchronization, and package sending and receiving to desktop, browser and mobile devices; provides maximum transfer speed, security, and distance independent collaboration with any size data set and can access and exchange "big data;" builds on Aspera Connect, Cargo, Sync and Mobile and unifies Shares and faspex paradigms.

www.asperasoft.com



LTFS is the new archive tape technology that is changing the landscape of file-based workflows for the media and entertainment industry.

SGL provides native support for LTFS drives and libraries, allowing complete content portability between systems and streamlining workflows to increase the revenue that you generate from your content.

To see how SGL and LTFS can revolutionize your file-based workflows, search 'SGL LTFS'



Visit us at IBC 2013 to see how SGL & LTFS can help revolutionize YOJR workflows

7.J15a.

DTV TRANSPORT STREAM MONITORING

TRIVENI DIGITAL STREAMSCOPE RM-40

Provides comprehensive, configurable and costeffective DTV transport stream monitoring for broadcast, cable, telco, satellite and IPTV networks at local and remote sites; a web-based, color-coded user interface displays drill-down dashboards, video and audio thumbnails, dynamic charts and graphs, and detailed current and historical reports.

www.TriveniDigital.com

NONLINEAR EDITING SYSTEM

AVID MEDIA COMPOSER 7

Features accelerated and simplified file-based workflows, including optimized HD delivery from high-res source material and automated media operations; also offers Interplay Sphere for Mac support, extending real-time production everywhere; additional new features include Avid Media Access media management, dynamic media folders, FrameFlex tool and LUT support, and clip gain.

www.avid.com

3G SDI AUDIO METERING

RTW TM3-3G TOUCHMONITOR



Compact yet versatile system for metering, deembedding and monitoring 3G SDI audio; features a 4.3in touchscreen for horizontal as well as vertical orientation, which can display any of the eight audio channels contained in a 3G-SDI stream.

www.rtw.de

BROADCAST WORKFLOW MANAGEMENT

PRIMESTREAM FORK 4.0

Newest version of the FORK Production Suite for managing and automating broadcast workflows; features integration with third-party broadcast solutions such as Avid Media Composer and Adobe Premiere Pro; also integrates with hardware such as Harmonic MediaGrid, Quantum archiving solutions and end-to-end workflows with Cisco Unified Computing System.

www.primestream.com

VIDEO RECORDER

SOUND DEVICES PIX240

Records 12-bit, 4:4:4 content to Apple ProRes 4444 over 3G-SDI (4:4:4 RGB or YCbCr); can record 330Mb/s Apple ProRes 4444 files that are perceptually indistinguishable from the original source material.

www.sounddevices.com

INTEGRATED AUDIO PRODUCTION SYSTEM

YAMAHA NUAGE

Integrates Yamaha's control and interface hardware with Steinberg's Nuendo DAW software; for maximum system versatility, the Yamaha control surface and audio interface hardware is modular, so users can easily create a custom configuration that ideally matches their applications; for mixing, editing and dialog replacement in audio post-production applications.

www.yamahaca.com

WIRELESS MICROPHONE SYSTEM

SENNHEISER DIGITAL 9000

Built for demanding applications such as multichannel broadcast; offers uncompressed digital audio transmission, free from intermodulation and far ahead of analog wireless transmission; features automatic safety and control functions; intuitive user interface provides a clear system overview in stressful live situations.

www.sennheiserusa.com

INTEGRATED PRODUCTION SYSTEM

BROADCAST PIX GRANITE X

Designed for large-scale setting with many cameras; has choice of three control surfaces — the 2000, 5000 and 6000; all models come with 22 SDI inputs and 12 outputs, a quad monitor Fluent-View and two M/Es; also features enhanced Fluent-View with 16 full-motion windows for cameras and other external inputs.

www.broadcastpix.com

MEDIA PRODUCTION AND DISTRIBUTION WORKFLOW

EPOCH WORKFLOW

VIRTUALIZATION TECHNOLOGY

SaaS improves speed, bandwidth use and ease of deployment for today's complicated multisite, multiformat workflows by unifying, harnessing and optimizing customers' existing IT infrastructure, as well as those of suppliers, partners and optional cloud services; monitors existing infrastructure and re-engineers workflows in real time for maximum performance and total capacity.

www.epoch-inc.com

ROBOTIC CAMERA CONTROL PANEL

TELEMETRICS RCCP-1

Provides flexible architecture for camera automation; works with Telemetrics Server Enterprise Database Control Software (EDCS) product line or stand-alone; integrated touch screen GUI is used for ROP controls.

www.telemetricsinc.com

CAMERA ACCESSORY

VINTEN VISION BLUEBRIDGE

Works with any of the pan-and-tilt heads in the Vision blue range to extend payloads, which can be perfectly balanced; works by shifting the payload range down and gives users a cost-effective option by extending the payload capabilities of their chosen blue system.

www.vinten.com

TARGETED AD INSERTER

INTERNATIONAL DATACASTING LASER

Combines video distribution receiver, ad splicer and ad server in one edge device to insert regional or local ads; enables simple centralized blackout management; increases ad revenue with advanced targeting; splices ads directly into transport stream.

www.datacast.com

MULTI-SCREEN APPLICATION SERVER

ENVIVIO HALO EXPERIENCE SERVER

Allows operators to further personalize the user experience based on individual viewer requests; facilitates advanced applications, including time-shifted TV and network DVR, targeted advertisement insertion, and social and personalized TV without requiring significant changes in the multi-screen infrastructure.

www.envivio.com

AUDIO/VIDEO PLAYER

ALCORN MCBRIDE A/V BINLOOP HD 4K

Provides up to two channels of Ultra HD 4K (3840 x 2160) synchronous or asynchronous video (eight channels of 1080p) and 16 tracks of 16-bit audio; ideal for supplying content to video walls without using valuable channels on playout server.

www.alcorn.com

STREAMING FORENSIC WATERMARKING TECHNOLOGY

CIVOLUTION NEXGUARD

Can be used to provide service providers with session-based forensic watermarking for 4K content distribution, enabling content owners to offer their most valuable content in Ultra HD with confidence; aims to deter potential piracy as it can be used to clearly trace origin and prosecute misuse.

www.civolution.com

STREAMING MEDIA ANALYSIS

BRIDGE TECHNOLOGIES POCKETPROBE

iPhone iOS app enables objective analysis of real network performance of streaming media; contains the same OTT engine found in the company's VB1, VB2 and 10G VB3 series digital media monitoring probes.

www.bridgetech.tv

EPG AUTOMATION TOOL

NVERZION NGUIDE



Leveraging a pre-built schedule, NGuide allows broadcasters to select multiple daily schedules to create a compatible text-formatted list; this list can then be published to the customer's EPG Web server to ensure accurate timing and advance scheduling for the viewers.

www.nverzion.com

E-O SIGNAL CONVERTER

BROAMAN REPEAT48

Plug-and-play devices convert 3G/HD/SD-SDI (or MADI) signals from coaxial cables to fiber and back; two to 24 channels in a single rack space with built-in power supplies; allows optical channels to be multiplexed and demultiplexed.

www.broaman.com

ADVERTISERS MARKED IN ORANGE

FIBER PANEL

OPTICAL CABLE PROCYON

Designed for high density with comprehensive trunk and patch cord cable management features; accommodates 144 LCs or 48 MTPs in 1RU; can be horizontally or vertically mounted (with hardware); intended to be used for switching, server and storage applications.

www.occfiber.com

26V CAMERA BATTERIES

BOXX TV BLUECELL



Use a manganese compound to provide the high level of current needed to run cameras such as the ARRI Alexa and Phantom digital cameras, which are natively 26V (almost double the traditional 16V that the industry is using today).

www.Boxxusa.com

EXTENSION CARD FOR CAT 5E/6

OPTICOMM-EMCORE
OPTIVA OTC-1DVI2AUSB



Extension card provides for the transmission of one channel of DVI with stereo analog audio, and USB for keyboard and mouse extension up to 100m on a single Cat 5e/6 cable; designed to allow format conversion, such as DVI to HD-SDI and HD-SDI to DVI, over copper.

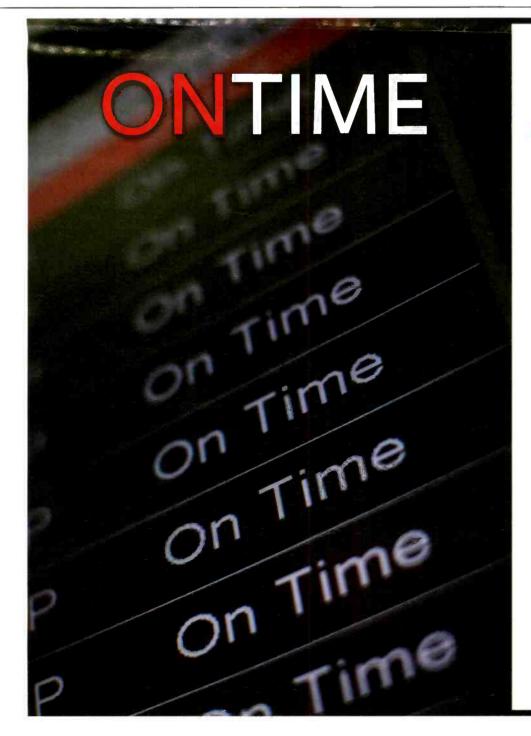
www.emcore.com/opticomm

LED LIGHT

ZYLIGHT F8

Compact, portable, rugged Fresnel draws 90W for 650W output; available in 3200K and 5600K; weighs 9.5lbs; wireless control via ZyLink or wired via DMX through standard connector.

www.zylight.com



All the time.



Trust the name broadcasters have counted on for precision master clocks and timing-related products for over 40 years—ESE. Our products accurately synchronize broadcast operations using a choice of GPS, NTP, Modem, Crystal or line frequency for affordable, reliable, perfect time—all the time.

Visit www.ese-web.com to witness world-class timing systems designed for easy installation, set-up and operation.

142 Sierra Street El Segundo, CA 90245 (310) 322-2136

www.ese-web.com

MOBILE NEWS CONTRIBUTION APP

DALET ON-THE-GO

Enables journalists in the field to stay up-todate on news, receive assignments and contribute content; interfaces with Dalet News Suite; Contribution function enables users to upload stories, videos, images and audio directly from iOS device.

www.dalet.com

IP NETWORK STREAM MONITORING SYSTEM

DVEO TRUE CHECK IP ANALYZER

Verifies the quality of MEPG-2/H.264 audio and video services delivered over IP; supports UDP and RTP/UDP protocols; calculates MDI on all services; supports both MPTS and SPTS; decodes MPEG-2 and H.264 video thumbnails; contains database for error logging and afterfacts analysis.

www.dveo.com

MULTISCREEN PLATFORM

ELEMENTAL TECHNOLOGIES UNIFIED PLATFORM 2.0



Version 2.0 video processing software supports multiple codecs, delivery standards and content protection technologies; can support MPEG-2, H.264, VC-1 and HEVC/H.265 encoding, as well as JPEG 2000 and ProRes mezzanine assets.

www.elementaltechnologies.com

AUTOMATIC MIXER

SHURE SCM820



Eight-channel digital IntelliMix automatic mixer designed for use in speech applications such as sound reinforcement, broadcasting and recording; uses IntelliMix to improve audio quality when many mic channels are needed simultaneously.

www.shure.com

DECODER

VISIONARY SOLUTIONS (VSI) D1000

H.264- and MPEG-2-based decoder supports SDI (3G/HD/SD), HDMI and DVI outputs with resolutions up to 1080p60; after receiving H.264 or MPEG-2 audio and video content from a VSI encoder, the unit decodes and outputs the content into a high-quality 1080p, 1080i or 720p HD stream, in real time, at the lowest possible bit rate.

www.vsicam.com

CLOUD-BASED PRODUCTION SYSTEM

AFRAME 2.0

The next generation of Aframe's flagship, cloud-based video technology that makes production faster and more flexible; newest feature, Edit Flow, allows users to export metadata out of Aframe and into the three major NLE platforms — Avid Media Composer, Apple Final Cut Pro and Adobe Premiere.

www.aframe.com

STORAGE SYSTEM

QUANTUM STORNEXT FX

Two versions of this data sharing and archiving software are available, including StorNext FX for Xsan 1.4.x environments and StorNext FX2 for Xsan 2 environments; both automatically balance data access, lowering network bandwidth requirements and eliminating the need to share FireWire drives.

www.quantum.com

ANAMORPHIC ZOOM LENS

THALES ANGÉNIEUX OPTIMO ANAMORPHIC 56-152MM 2S

Features 2X squeeze and fast T4 aperture with no ramp or breathing; 320-degree focus rotation with 50 witness marks; weighs 4.8lbs; suited for hand-held shots as well as steadycam; available in PL mount; PV mount available upon request.

www.angenieux.com

4K QUALITY ANALYSIS

VIDEO CLARITY CLEARVIEW EXTREME 4K

Video quality analyzer and new Clearview Extreme with Display Port provide a new level of input/output capability and subjective picture quality comparison performance; capable of interactive playback and comparison of two uncompressed 4K (3840 x 2160) sequences at up to 60Hz in real time.

www.videoclarity.com

GRAPHICS SYSTEM

ORAD HI-TEC SYSTEMS HDVG4

Third-generation rendering platform supports up to "16K" (four 4K streams) and can generate 4K, 1080i, SD and IP streams, taking different aspect ratios and formats into account; features 64-bit operating system and 64-bit rendering engine.

www.orad.tv

FLAT-PANEL MONITOR WALL

TBC CONSOLES TRACWALL

Mounting system for creating flat panel monitor wall consisting of any arrangement of speakers, UMDs and clocks; unit may be free-standing, wall-mounted or include base cabinets; displays from 15in to 70in bolt directly with a variety of fixed, tilt/swivel and articulating mounts.

www.tbcconsoles.com

DIGITAL VIDEO SERVER

LEIGHTRONIX ULTRANEXUS-HD

Integrated, multichannel digital video server records high-quality digital media files for rebroadcast while simultaneously creating files optimized for Internet VOD streaming; has two MPEG playback (decode) channels and one broadcast MPEG record (encode) channel.

www.leightronix.com

NLE

SONY CREATIVE SOFTWARE VEGAS PRO 12

Adds support for XAVC for Sony F5 and F55 cameras; supports round-trip P2 workflow; Smart Proxy feature creates high-performance clips to achieve faster playback for computationally intensive or high-bit-rate codecs.

www.sonycreativesoftware.com

LOW-LATENCY ENCODER PLATFORM

MEDIA EXCEL HERO 5000E

Designed for point-to-point distribution over IP and ASI networks; delivers up to two independent channels in MPEG-2 or MPEG-4/AVC from SD to HD and from 4:2:0 to 4:2:2; relies on a fully redundant 1RU chassis and the company's video processing technologies to deliver highly available services for mission-critical low-delay applications.

www.mediaexcel.com

CONTENT STORAGE

FACILIS TERRABLOCK



Shared storage supports 4Gb/s, 8Gb/s and 16Gb/s Fibre Channel, and 1Gb and 10Gb Ethernet client connectivity; supports 4TB drives and Mac OSX 10.8.3 and 10.7.5 with the latest Mountain Lion and Lion release.

www.facilis.com

AUDIO AND LOUDNESS METER

TSL PAM PICO FIVE



Allows for real-time logging of all relevant loudness parameters, including high and low loudness levels, peak-level and corresponding peak channel, as well as integrated loudness; new logging software application provides instant documentation, visualization and evaluation of any source passing through the meter.

http://www.tsl.co.uk

MPEG STREAMING SERVER

MEDIAPROXY LOGSERVER IP

Native MPEG streaming server solution offers cost-effective, software-based MPEG-2/MPEG-4 multiviewers and multichannel MEPG review, allowing seamless access to the transport streams via new Monwall IP and LogPlayer IP client applications.

www.mediaproxy.com

ROUTING SWITCHERS

PESA CHEETAH

Flagship series of large-scale routing switchers provides solutions for ASI, SD-SDI, HD-SDI and 3G-SDI; frame sizes range from 64 x 64 to 128 x 128; all frames offer flexibility of handling either coax or fiber, except for the 288XR, which handles fiber only.

www.pesa.com

CELLULAR ING TRANSMITTER

VISLINK AIRSTREAM

Instantly streams from the studio playout unit (LGR or VMS) at the push of a button; lost or stalled data packets are no longer a problem with predictive forward error correction algorithms; has HD/SD-SDI or HDMI video input; encodes H.264 AVC high-profile 4.1 at 128Kb/s to 10Mb/s 4:2:0 (adaptive bit-rate encoding).

broadcast.vislink.com

PRODUCER'S CONSOLE

STUDIO TECHNOLOGIES MODEL 240



Provides resources of a four-channel talent cueing (IFB) master station, combined with a two-channel party-line intercom user station; features revised phantom power supply circuit for enhanced stability and lower noise, as well improved filtering on inputs and outputs to increase RF rejection and ESD immunity.

www.studio-tech.com

AVB-COMPLIANT INTERFACES

RIEDEL COMMUNICATIONS

Designed for Artist intercom platform; CPX-AVB expansion card fits into the expansion slot of Artist 1100 series control panels; Connect AVB C8 offers eight AES connections on BNC and supports both bi-directional AES for intercom panels and unidirectional transport for AES; Connect AVB A8 provides eight analog inputs and outputs on RJ45 connectors; AVB Manager offers full AVB network management.

www.riedel.net

HOME THEATER IN YOUR POCKET

DTS HEADPHONE:X

HTiP offers premium audio with surround sound up to 11.1; surround content is encoded as a DTS-HD bit stream, with room information embedded in the stream, before DTS Headphone:X calibrates headphones; reference data is then decoded, and post-processing enhancement is employed.

www.dts.com

COMPUTING APPLIANCE

NVIDIA GRID VCA

GPU-based system runs complex applications such as those from Adobe Systems, Autodesk and Dassault Systèmes; 16 GPUs and GRID VGX software provide Quadro-class graphics performance for up to 16 concurrent users, with low latency, high resolution and maximum interactivity.

www.nvidia.com

WORKSTATION STORAGE

FUSION-10 IOFX

High-capacity ioFX now available with 1.6TB of capacity; ideal for video editing, computer assisted design, 4K and stereoscopic production, as well as digital intermediate finishing; connects via PCI Express; also available in a 420 GB capacity.

www.fusionio.com

STORAGE APPLIANCE

XENDATA SX-10

Manages a robotic LTO tape library or standalone LTO tape drives; creates a cost-effective digital video archive that is ideal for video production and post production applications; runs on Windows 7 and scales to 125TB of near-line LTO; available in six standard configurations.

www.xendata.com

ADVERTISERS MARKED IN ORANGE



Aurora QC, Hydra Player and Eos AutoFix are uniquely designed to work together with your transcoder and workflow tools to make your QC process, review and correction faster, simpler and saner.

We're Digimetrics, and we enable smart decisions with advanced tools for the modern media organization with <u>True Next Generation QC</u>...www.digi-metrics.com

HD FLYPACK

BEXEL HERCULES HD FLYPACK

Designed to bring first-class production facilities to remote and space-constrained venues around the world; configured with every component of high-end production control rooms; features state-of-the-art HD technology with complete adaptability, including custom-designed modular racks to handle a variety of complex production requirements.

www.bexel.com

VIDEO RECORDER

FAIRLIGHT PYXIS 4K

Standalone or rack-mountable, turn-key video recorder delivers future-proof UHD video recording and playback, along with extensive audio capabilities and workflow compatibility; records compressed or uncompressed video formats from SD up to 4K; delivers transparent playback up to 4K or dual-channel 2K resolution.

www.fairlightus.com

WEB-BASED WORKFLOW MANAGEMENT SYSTEM

PETROL BAGS PS617

Designed to accommodate Sound Devices 664 mixer, with or without CL6 controller; weighs 4.3lbs; internal dividers are removable for custom configurations; transparent top window allows viewing of controls; front and rear compartments provide access to connector cables.

www.petrolbags.com

CONNECTOR

RADIALL BNC HD CONNECTOR

Available in a wide color variety for easy signal identification; unique easy-grip boot allows for high-density integration with the use of a tool to plug or unplug; intermateable with standard 50-ohm and 75-ohm BNC products; durable, with 1000 mating cycles guaranteed.

www.radiall.com

COMMERCIAL INSERTER

YOSPACE SMOOTH STREAMING SUPPORT

Close integration with the broadcast playout automation system ensures a completely seamless output of Microsoft Smooth Streaming content; viewers will not realize that content has been replaced; the online stream can be conditioned such that it splices in alternate content with frame accuracy.

www.yospace.com

BROADCAST FIELD-DECK RECORDER

VITEC FOCUS FS-T2001



Designed for XDCAM workflow; incorporates the complete range of Sony professional formats, including HD422 50Mb/s and XDCAM EX/HD; supports removable professional media: SxSPro/SxS-1 and SDHC cards, as well as 250GB of internal storage for either clip recording or management/storage over a GigE connection.

www.vitecmm.com

CAMERA WIRELESS TRANSMITTER

COBHAM SOLO MICRO HD

Small HD camera transmitter uses low-latency H.264 compression and integral COFDM modulation to transmit high-quality images from camera to receiver; optional SDI video input; 8/7/6MHz demodulation 100mW output power.

www.cobham.com

BROADCAST MONITOR

FLANDERS SCIENTIFIC CM320TD

32in, 10-bit panel with 1920 x 1080 native resolution monitor features CFE2 (custom LUT import), simultaneous monitoring of two inputs; suited for all post-production applications, but also a capable field monitor with weight (21lbs) and power consumption (max 50W) on par with many much smaller monitors on the market.

www.ShopFSI.com

AV DEVICE CONTROL SYSTEM

HIGH RESOLUTION SYSTEMS HRS CONTROL

Device control software simplifies control in on-air newsrooms, MCRs and NOCs; capable of controlling and automating features such as video, audio, image processors and lights; compatible with custom touch panels.

www.hrscontrol.com

LENSES

SCHNEIDER OPTICS SCHNEIDER-KREUZNACH XENON FF-PRIME

Purpose-built for digital cinematography with full-frame HDSLRs and other cinema cameras, the full-frame lenses are meant for 4K resolutions; covers 45mm image circle; first focal lengths include 35mm T2.1, 50mm T2.1 and 75mm T2.1; each lens weighs 3.3lbs.

www.schneideroptics.com

DIGITAL EDITION EXCLUSIVE

For additional products and expanded coverage on those seen here, check out our Digital Edition!



Subscribe at onlinesuboffers.com/ginq3xca

ADVERTISERS MARKED IN ORANGE

ADVERTISERINDEX

	Page #	Hotline	website Address
AJA Video	7	800-251-4224	aja.com
Blackmagic Design	5	408-954-0500	blackmagic-design.com
Digimetrics	17		digi-metrics.com
ESE	15	310-322-2136	ese-web.com
For-A Corp. of America	9	714-894-3311	for-a.com
JVC Professional Products	3	800-582-5825	jvc.com
Linear Industries Inc	11	847-428-5793	linear-tv.com
Playbox Technology Ltd	BC	404-424-9283	playbox.tv
Riedel Communication Gmbh & Co. Kg	IBC	818-241-4696	riedel.net
SGL	13		sgluk.com
Wheatstone Corporation	IFC	252-638-7000	wheatstone.com

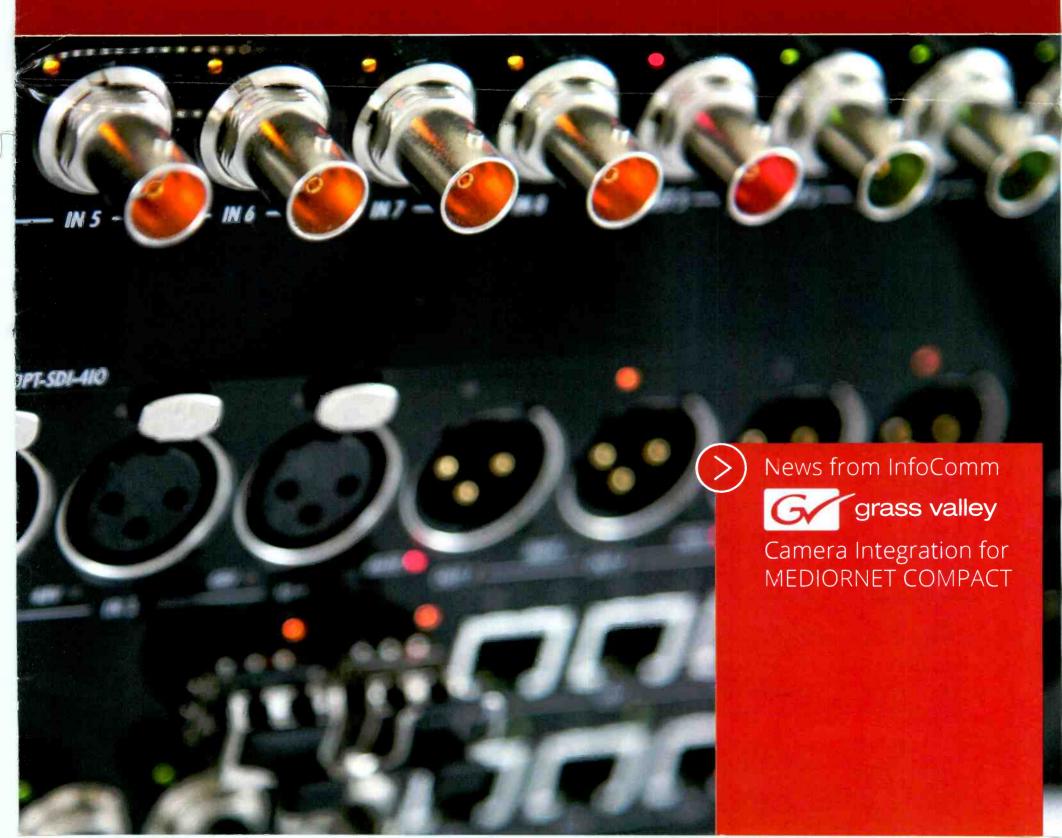


The Future Is Networked.

MEDIORNET COMPACT

- Synchronized 50G real-time network for 3G/HD/ SD-SDI video, audio, data & intercom at the price of multiplexing point-to-point fiber products
- Flexible signal routing incl. point-to-multipoint
- Integrated Frame Store Synchronizer, Embedder/ De-Embedder, Test Pattern Generator, On-Screen Display & Timecode Insertion at every port
- Fully compatible with modular MediorNet systems

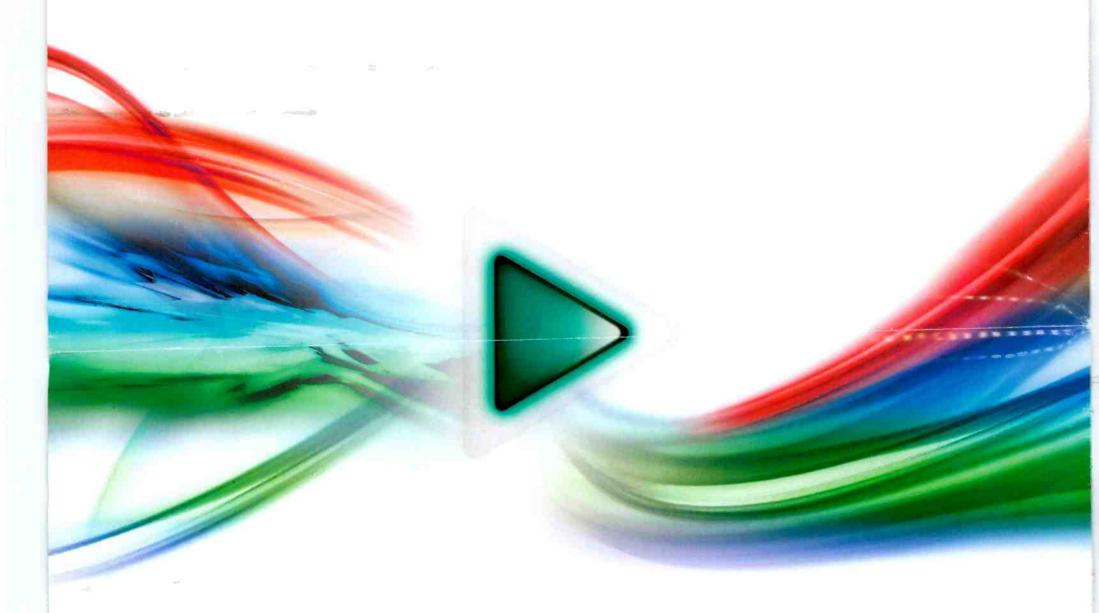
www.riedel.net





From a Single Channel Playout Server to a Multi Channel Turnkey Broadcast Centre

It's All in a PlayBox



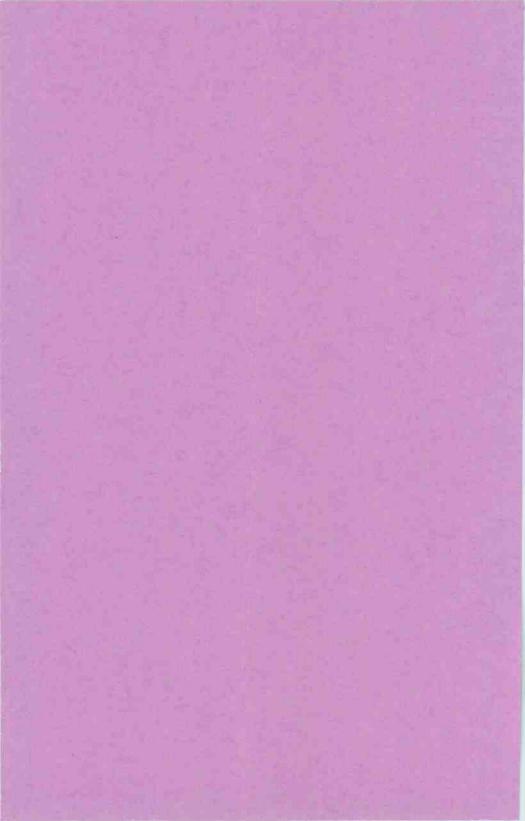
- Single and Multi Channel Playout Automation with interactive CG and Graphics
- Traffic Management Media Asset Management and Archive Newsroom System
- Remote Redundant Playout Ad Insertion and DPI Time Shift
- IPTV and Internet TV Solutions
- Available in HD / SD and DVB (ASI/IP)

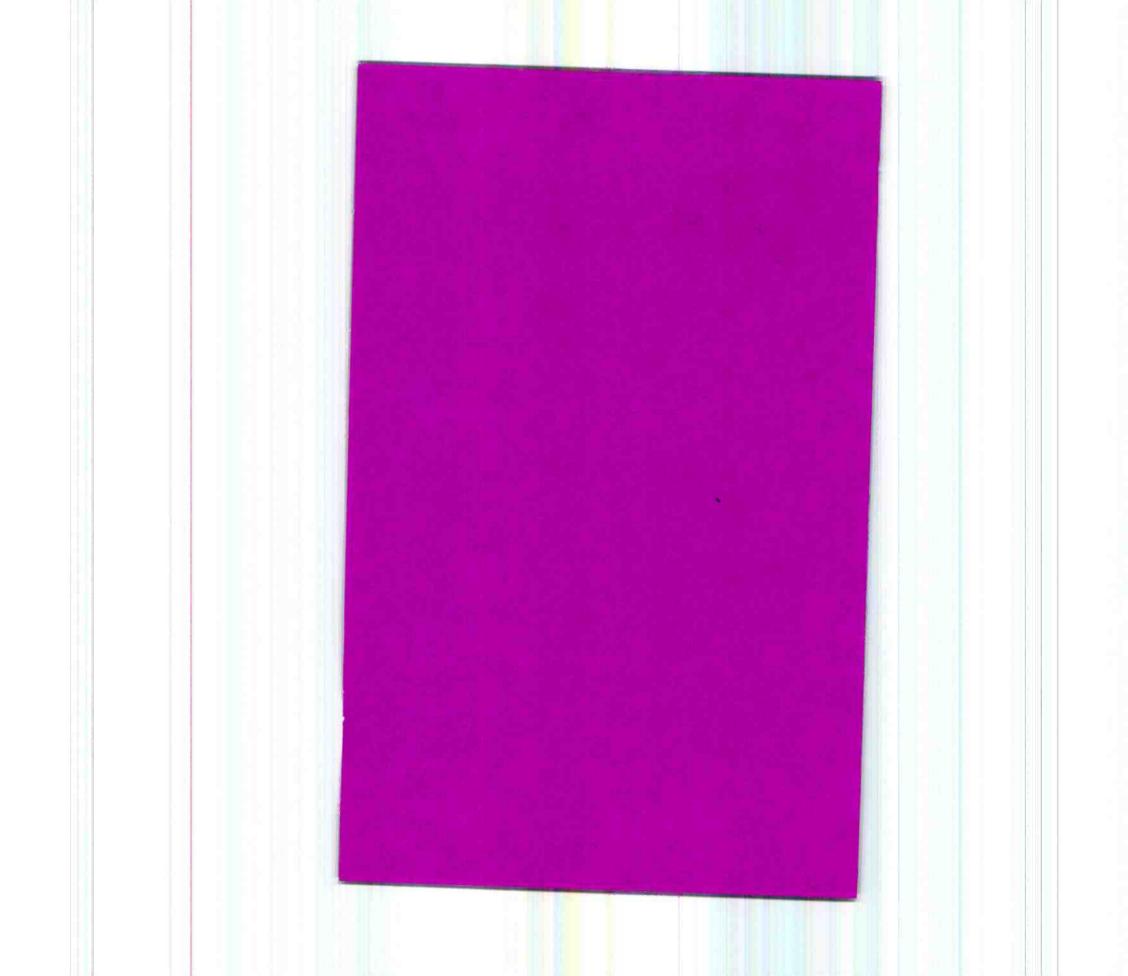
General Sales Contacts: sales.usa@playbox.tv • Website: www.playbox.tv

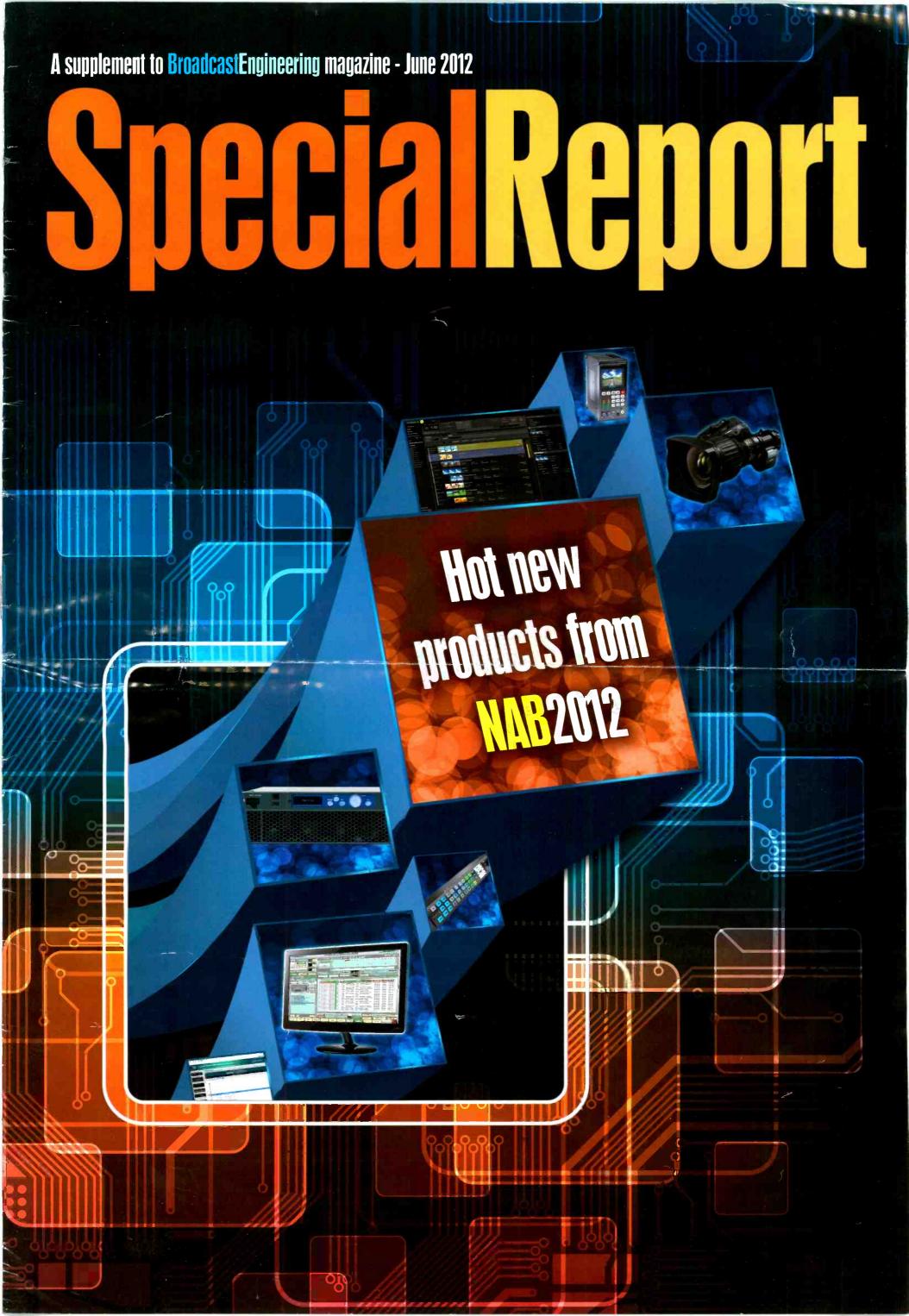
- PlayBox UK +44 1707 66 44 44 PlayBox Bulgaria +359 2 9703050 PlayBox Romania +4 031106 5115
- PlayBox Turkey +90 216 3379402 PlayBox Adria +381 11 313 28 50 PlayBox Albania +355 44 80 45 52
- PlayBox USA +1 404 424 9283 PlayBox Asia Pacific +603 7954 3400 z• PlayBox India +91 9811913333

Broadcast | sia 2013

Join PlayBox on Stand 5D3-03







www.solidstatelogic.com

C10HD

Big console power in a compact, simple and affordable package.



- Integrated Production Assistants; Dialogue Automix,
 C-Play, Station Automation and 5.1 Upmix
- Renowned SSL reliability and support
- Premium audio quality, ready for 5.1 production
- Simple to install with flexible I/O options
- Easy to operate for users of all skills levels

Get in touch

East Coast - Steve Zaretsky | T: 1 (212) 315-1111 ext. 15 | stevez@solidstatelogic.com **West Coast** - George Horton | T: 1 (213) 249-9229 ext. 15 | georgeh@solidstatelogic.com

Take the video tour at: www.solidstatelogic.com/C10

Solid State Logic

HD-SDI SCAN CONVERTER

WITH GENLOCK AND REGION-OF-INTEREST SUPPORT \$1495



Request a Demo!



Broadcast Computer-based Content Easily and Economically



Matrox Convert DVI scan converters with genlock and region-of-interest support are ideal for incorporating content from computers, iPads, and iPhones into broadcast news. They are also the perfect appliances to drive projectors and large displays at live events and in houses of worship. These products create broadcast video from computer applications such as Skype, YouTube, Google Earth, FaceTime, media players, presentation software, and web browsers.



Request a Demo

http://www.matrox.com/video/convertdviplus/be 1.800.361.4903 (US and Canada), 514.822.6364 www.matrox.com/video





A PENTON MEDIA PUBLICATION

Editorial Director: Brad Dick, brad.dick@penton.com

Editor: World Edition: David Austerberry, editor@broadcastengineeringworld.com Managing Editor: Susan Anderson, susan.anderson@penton.com Production Editor: Andrew Ward, andrew.ward@penton.com **Production Editor:** Curtis Kitchen. curtis.kitchen@penton.com **Production Editor:** Laura Dixon, laura.dixon@penton.com Senior Art Director: Robin Metheny, robin.metheny@penton.com

Technical Consultants:

Computers & Networking – Brad Gilmer Digital Video – Aldo Cugnini Legal – Harry C. Martin New Technology - John Luff Industry Watcher – Anthony Gargano

Group Publisher: Wayne Madden, wayne.madden@penton.com Sr. Marketing Manager: Kim Davidson, kim.davidson@penton.com **Director, Online Sales:** Angle Gates, angle.gates@penton.com **Production Coordinator:** Curtis Jansen, curtis.jansen@penton.com Audience Development: Sonja Trent , sonja.trent@penton.com



Penton Media, Inc. 249 West 17th Street. New York, NY 10011

CEO: David Kieselstein, david kieselstein@penton.com

MEMBER ORGANIZATIONS

Sustaining Member of: Society of Broadcast Engineers Member, American Business Media. Member, BPA International. The Missouri Association of **Publications**



ABM ·

BE US/Canada Subscription Rates: Free/controlled circulation to qualified subscribers. Non-qualified persons may subscribe at the following yearly rates (subject to change): USA - \$59; Canada - \$69; Outside US and Canada - \$99. Digital subscription \$12 worldwide. Customer service can be reached at: broadcastengineering@pbinews.com or by calling 866-505-7173 or 847-763-9504

BE World Subscription Rates: Free/controlled circulation to qualified subscribers. Non-qualified persons may subscribe at the following yearly rates (subject to change): USA - \$59; Canada - \$69; Outside US and Canada \$99. Digital subscription \$12 worldwide. Customer service can be reached at: broadcastengineering@pbinews.com or by calling 866-505-7173 or 847-

ARCHIVES AND MICROFORM: This magazine is available for research and retrieval of selected archived articles from leading electronic databases and online search services, including Factiva, LexisNexis and Proquest. For microform availability, contact National Archive Publishing Company at 800-521-0600 or 734-761-4700, or search the Serials in Microform listings at napubco.com.

REPRINTS: Contact Wright's Media to purchase quality custom reprints or e-prints of articles appearing in this publication at 877-652-5295, +00-1-281-419-5725, or penton@wrightsmedia.com

PHOTOCOPIES: Authorization to photocopy articles for internal corporate, personal, or instructional use may be obtained from the Copyright Clearance Center (CCC) at 978-750-8400. Obtain further information at copyright.com.

PRIVACY POLICY: Your privacy is a priority to us. For a detailed policy statement about privacy and information dissemination practices related to Penton Media products, please visit our Web site at www.penton.com.

EDITORIAL and BUSINESS OFFICE: Penton Media, 9800 Metcalf, Overland Park, Kansas 66212 • 913-341-1300 • penton.com

Copyright 2012, Penton Media, Inc. All rights reserved.

Customer Service: 866-505-7173 or 847-763-9504

Broadcast Engineering, June 2012, Vol. 54, No. 6 (ISSN 0007-1994) is published monthly and mailed free to qualified persons by Penton Media, Inc. 9800 Metcalf Ave., Overland Park, KS 66212-2216. Periodicals postage paid at Shawnee Mission, KS, and additional mailing offices. Canadian Post Publications Mail Agreement No. 40612608. Canada return address: Bleuchip International, P.O. Box 25542, London, ON N6C 6B2. POSTMASTER: Send address changes to Broadcast Engineering, P.O. Box 2100, Skokie, IL 60076-7800 USA. CORRESPONDENCE: Editorial and Advertising: 9800 Metcalf, Overland Park, KS 66212-2216 Phone: 913-341-1300; Edit. fax: 913-967-1905. Advert. fax: 913-967-1904. © 2012 by Penton Media, Inc. All rights reserved.

Coverage you can depend on

Even after four days and miles of walking, it's impossible to see everything on the NAB exhibit floor. There isn't enough time to see it all.

Readers tell us that their top reason to attend the NAB Show is to research products for possible purchase. But as the show grows ever larger, it becomes even more difficult to find what you're looking for. And, if you can't attend the exhibition, it's even harder to discover the new ideas and solutions that were introduced at the show.

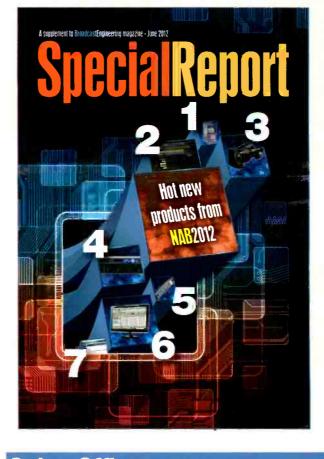
To help you unearth the technology gems from the more than 1600 exhibitors in the 3.2 million sq-ft exhibit hall, Broadcast Engineering brings our team of editors and consultants to cover the event. Combined, these experts travel to all the booths and see all the products so you don't have to. We then pool our knowledge in this special Broadcast Engineering product guide. It's full of new products and services you may have missed or simply need more information about.

So, read on, because whether or not you attended the 2012 NAB Show, hundreds of new discoveries are just pages away.

Brow Drik

Brad Dick, editorial director

On the cover



Products pictured on the cover are as numbered:

1 AJA Ki Pro Quad.....page 8

2 Evertz Mediatorpage 18

3 Canon HJ17ex6.2Bpage 26

4 Harris Seleniopage 14

5 Blackmagic DesignTeranexpage 6

6 Miranda iTX MCpage 18

7 PlayBox Technology

Multi Playout Managerpage 8

Sales Offices

US/CANADA

West

George Watts III (360) 546-0379; Fax: (360) 546-0388 georgeww3@aol.com

INSIDE AND CLASSIFIED SALES: Julie Dahlstrom

(312) 840-8436 Fax: (913) 514-3684 julie.dahlstrom@penton.com

INTERNATIONAL

Europe

Richard Woolley +44-1295-278-407 Fax: +44-1295-278-408 richardwoolley@btclick.com

Israel

Asa Talbar Talbar Media +972 (77) 562-1900 talbar@talbar.co.il

Japan

Mashy Yoshikawa Orient Echo, Inc. Fax: +81-3-3235-5852 mashy@fa2.so-net.ne.jp

Asia Pacific

Tan May Ling InterAct Media & Marketing +65-9623-1405; Fax: +65-6265-3000 tmling@singnet.com.sg

REPRINTS

Wright's Media 877-652-5295 +00-1-281-419-5725 penton@wrightsmedia.com

LIST RENTAL SERVICES

Marie Briganti, (877) 796-6947 mbriganti@meritdirect.com Kristen Killingback, (914) 368-1062 kkillingback@meritdirect.com Chris Blohm, (914) 368-1031 cblohm@meritdirect.com



Welcome to the most exciting way to create television programming... Live!

Introducing the world's most advanced live production switcher! ATEM switchers include advanced technology and powerful features, all built into a familiar M/E design that's fast and easy to use! With an advanced broadcast SDI based design, ATEM also includes HDMI connections for connecting HDMI consumer cameras or computers! The new ATEM has been totally redesigned with Blackmagic Design technology and quality. Live switching multiple cameras is the lowest cost and fastest video production possible!



Live Creative Power

Get the most creative solution for live switching, with cut, mix, wipe, dip, DVE, graphic wipe and stinger transitions! Load clips into the 2 built in media players for exciting custom animated stinger transitions! ATEM

includes a built in DVE with 3D borders, light source and drop shadow! You can even use the DVE for transitions!



Incredible Features

Only ATEM includes 4 upstream keyers, each with independent chroma, pattern, shaped and linear keying, 2 downstream keyers, graphic wipes, stinger transitions, 2 built in media players, DVE transitions and more!

The built in multi view allows all cameras, preview and program to be viewed on a single SDI or HDMI monitor, so ATEM is perfect for portable location use! Now you can cover any live event, anywhere!



More Connections

ATEM includes loads of SDI and HDMI connections for professional SDI cameras or HDMI consumer cameras! All inputs feature re-sync so you can plug in anything! You get 6 program outputs in SDI/HD-SDI, HDMI,

HD component and USB 3.0, plus down converted SD-SDI and composite video. The multi view includes SDI and HDMI, plus you get 3 aux outputs.



Built to Perform

ATEM uses a familiar M/E style of operation so you get an instantly familiar workflow that's fast and easy to use. ATEM includes a software based control panel for Mac and Windows! If you need a hardware control panel then

simply add the ATEM 1 M/E Broadcast Panel for a true broadcast grade solution. ATEM even uses an FAA certified operating system for a high reliability broadcast grade design.

ATEM 1 M/E Production Switcher
Full 2 RU ATEM switcher chassis includes Mac and Windows control software.

\$2,495

ATEM 1 M/E Broadcast Panel

\$4,995

Traditional M/E style broadcast quality hardware control panel.

Learn more today at www.blackmagic-design.com/atem



Hot new products from NAB2012

AUDIO LOUDNESS PLATFORM

Linear Acoustic AERO. 1000



Metadata-based transmission audio loudness controller; 1RU unit can house eight AEROMAX audio processing engines; supports up to 64 channels of encoded or baseband audio via AES, SDI, analog or optional DVB-ASI; each processing core includes UPMAX upmixing algorithm and compensating video delay; options include Dolby decoders/encoders and Nielsen watermark encoders.

www.linearacoustic.com

TV EVERYWHERE SYSTEM

Akamai TV Everywhere system

Enables broadcasters to rapidly bring TV Everywhere services to market by providing a common framework for implementing proprietary operator-programmer relationships; scalable to handle broadcast-size audiences; provides secure authentication and authorization identity services based on open standards; can be paired with the Akamai HD Network for scalable, high-quality and secure streaming with audience analytics.

<u>www.akamai.com</u>

ON-SET VIDEO PLAYER

Alcorn McBride SetPlayer SP8000

Provides eight channels of on-demand, flash-based video to multiple monitors in a compact package; stores video clips on CompactFlash; features component, HDMI, HD-SDI outputs, SD monitor outputs for each channel and unbalanced, balanced and digital AES/EBU audio inputs; accepts black burst, composite and trilevel sync reference inputs; stereo and Dolby audio can be multiplexed with the video and output as digital bit streams; responds to contact closures, RS-232/RS-422, MIDI and Ethernet; can be controlled by existing transport controllers via VDCP.

www.alcorn.com

Avid ISIS 2000



A cost-effective 64-bit self-balancing, distributed near-line file system that works with Avid Interplay to provide enterprisewide search, browse, access and management of media; enables quick access to nearline files from any workstation; incorporates 84 hard disk drive (HDD) slots populated with 82 3TB SAS drives.

www.avid.com

GRAPHICS PLATFORM Harris Inscriber G8

Provides high-end, real-time graphics production support through uncompressed imagery, and graphics and animation capabilities; handles complex 3D graphics and animations; uses an Intel Xeon E5 processor and NVIDIA Quadro 4000 GPU to significantly reduce channel hardware density for a greatly reduced footprint (2RU), lower power consumption, and improved performance and clip playback scalability.

www.broadcast.harris.com

CAMERA

Ikegami HDK-97C

3G field production camera employs next-generation CMOS sensors; supports 1080i/720p and 3G signals such as 1080p60 4:2:2 and 1080p30 4:4:4; allows easy change over between fiber and triax adapters using CCU-970, which is capable of supporting both cable types with simple front-panel switch selection.

www.ikegami.com

PRODUCTION AUTOMATION SYSTEM

Aveco ASTRA Studio 2

Automation system lets a single operator produce a complex live newscast or studio program; controls recording devices for re-recording portions and splicing new content into final program; file-based workflows enabled with a rules-based transfer engine; supports both centralized and hub-and-spoke operations; online expansion and upgrades with no or minimal downtime.

<u>www.aveco.com</u>

PORTABLE MIXER

Azden FMX-32A

Offers improved signal-to-noise ratio and wider frequency response designed for professional videographers; battery-operated; can attach directly to a camera; three XLR inputs each with two level settings, individual input level controls, master level control, and switchable phantom power and limiters.

www.azdencorp.com

STANDARDS CONVERTER Blackmagic Design Teranex



Provides extremely high-quality de-interlacing, upconversion, downconversion, SD and HD crossconversion, automatic cadence detection and removal; noise reduction, adjustable scaling and aspect ratio conversion; all with full timecode and multi-channel audio conversion; includes 3-D dual-channel conversion, 3-D simulation and 3-D camera rig alignment.

www.blackmagic-design.com

RF HD CAMERA SYSTEM

Boxx Communications Meridian Lite

Affordable, entry-level RF HD camera system with zero-delay transmission for live broadcast and videography; features a lightweight, wireless transmitter; supports full 4:2:2 video, including all formats up to 1080p30; delivers uncompressed, artifact-free broadcast video and sound in sync.

www.boxxusa.com

MONITORING PROBE

Bridge Technologies VB330

Based on Bridge Technologies' new 10GigE architecture; designed to offer highest performance-to-form-factor ratio available; three blades fit in a single 1RU chassis; with each probe having two 10GigE interfaces, can deliver 60Gb/s monitoring capability.

www.bridgetechnologies.com

VIDEO SERVER

Bright Technologies Triton



New edition of BrightDrive G2 server; occupies a single rack unit; supports StorNet 4.2; eco-friendly design lowers cooling requirement and reduces power costs; agnostic architecture allow seamless interfacing with users' preferred applications, protocol, resolution and formats.

www.4bright.com

ADVERTISERS MARKED IN COLOR

Acquire with AJA.

From Lens to Post, capture edit-ready 10-bit footage direct from your camera.





Lens to Post...in a Flash.

Portable 10-bit 4:2:2 Flash Disk Recorder

Mount Ki Pro Mini to your SDI or HDMI equipped camera and record native 'ready-to-edit' Apple ProRes or Avid DNxHD files to removable Compact Flash (CF) media, accelerating the path from camera to edit.

Avid DNxHD® Encode & Decode. Free Download Now Available!



Ki Pro

Unify Cameras and Formats.

10-bit 4:2:2 Recorder with Conversion

Utilize AJA's powerful hardware up/down/cross conversion technology and the extensive I/O connections of Ki Pro to bring different camera

resolutions and formats together into a seamless Apple ProRes workflow.



RS-422 support for use as a 10-bit digital disk recorder.

Find out about our latest Acquire products at www.aja.com





Hot new products from NAB2012

VIDEO PRODUCTION SYSTEM

Broadcast Pix Mica 2000

Largest member of the Mica family, has 16 PixButtons per row to access more sources quickly, six key layer buttons, and a dedicated row of 16 Fluent-macro PixButtons; also features an expanded device control section with dedicated selectors for each of Mica's seven banks of internal devices, plus four additional wildcard devices.

www.broadcastpix.com

STREAMING SYSTEM

Broadpeak +screensCDN

Delivers high-quality content to multiple screens; includes the BkM100 CDN Mediator, which models network topology and provisions video POP according to content popularity in order to optimize backbone bandwidth usage; also includes the BkS100 TS streaming servers and BkS300 multiformat servers, as well as the BkS200 and BkS300 multiformat servers, which provide optimized content delivery to PCs, smartphones and tablets.

www.broadpeak.tv

MOBILE TV AUDIO PROCESSOR

Day Sequerra M2DTV

Accepts 5.1 surround, stereo and EAS/CAP inputs; features DTS Neural Surround DownMix; offers two channels of DTS Eclipse codec preprocessing; designed for optimum HE AAC v2 operation at less than 48kb/s; reduces artifacts from lossy compression and low-bit rate transmission; optional HD/SDI input for eight deembedded audio channels.

www.davseguerra.com

INTERCOM INTERFACE

Riedel Communications AVB series



Series of products includes the AVB-108 G2 Client, the Connect AVB and Connect AVBx8 panel interfaces; allow professional intercom users to connect intercom panels in IP-based LAN environments in real time; offers intercom applications over LAN infrastructures such as matrix-to-control panel connections, audio distribution, matrix-to-matrix trunking connections or distribution of digital partylines.

www.riedel.net

CHANNEL BRANDING SYSTEM

Chyron Channel Box²

The v. 4.6 Channel Box² features 2D/3D design with data acquisition toolset; allows users to access any data and publish it on-air anywhere, anytime; new features include locking scenes and copy/ paste/reverse functionality, all of which can be coupled with a scene list allowing groups of scenes to be created and stylized.

<u>www.chyron.com</u>

CONTENT STORAGE

Civolution NexGuard OMD

Online Media Delivery with video watermarking technology runs on Windows cloud-based Azure Media Services; enables secure delivery of digital media assets processed through the cloud; allows content aggregators to use the cloud to organize online screening for professionals or deliver OTT VOD to consumers, both with video watermarking capability.

www.civolution.com

MONITORING SYSTEM

Digital Nirvana MonitorlQ

Latest version provides compliance logging, aircheck, signal analysis and diagnostics, and content repurposing; records at full SD and HD broadcast quality; based upon an open API platform; provides access to the entire transport stream for analysis and diagnostics, as well as IP multicast to enable IPTV inside the facility.

www.digital-nirvana.com

SOLID-STATE PORTABLE VIDEO RECORDER AJA Ki Pro Quad

Stores high-quality edit-ready files in formats including 4K (4096 x 2160), Quad HD (3840 x 2160), 2K (2048 x 1080), and HD (1920 x 1080) in 10-bit 4:4:4 or 10-bit 4:2:2 color; performs de-Bayer processing of the RAW data that can be used to produce on-board Apple ProRes record-



ings to SSD media; a scaled or cropped output is also simultaneously available for 2K or HD monitoring via dedicated SDI and HDMI connections.

www.aja.com

SLOW-MOTION SYSTEM Newtek 3Play 425

Four-input, two-output slow-motion system supports the simultaneous display, recording and instant replay of all channels; designed to give users an affordable option to deliver instant replay and slow motion for broadcast, webcast, arena scoreboard displays and more, without sacrificing quality; existing customers of the NewTek TriCaster can incorporate 3Play 425 into their programming over Ethernet, freeing up the live video inputs for cameras.

www.newtek.com

SYSTEM-ON-A-CHIP

Coherent Logix HyperX hx3100

A system-on-a-chip solution composed of an array of 100 processing elements (PEs), each of which is a fully capable 500MHz DSP/GPP processor core with 4Kb program memory; PEs support 8-bit and 16-bit, extended precision integer and 32-bit single-precision floating-point processing; capable of 50,000MIPS (50GMACs) performance or 25GFLOPS.

www.coherentlogix.com

500W TRANSMITTER

Linear Industries AT71-500-11

4RU x 19in x 26in drawer size reduces installation footprint; nine temperature-controlled cooling fans provide optimal pwerformance and longer life for critical components; features include scheduler software to run corrections/measurements at scheduled times, internal GPS receiver, selectable timebase reference and proprietary bandwidth reduction technology; operates in VHF and UHF.

<u>www.linear-tv.com</u>

PLAYOUT MANAGER PlayBox Technology Multi Playout Manager

Fully assignable monitoring and control system with rights management for multiple AirBox playout channels from one or more Internet-connected PCs locally or from anywhere in the world via IP; allows multichannel playout centers to monitor and control all channels locally and assign full or restricted rights for any of the TV channels to one or more people to remotely monitor and/or control the TV channels from a remote PC, iPad, mobile phone, etc.

www.playbox.tv



Imagine...

- ▶ managing media with unprecedented intelligence
- creating content once and delivering it anywhere
- ▶ transforming creative excellence into business success



Imagine ▶ Achieve

Whatever you can imagine, Avid will help you achieve.

Register for the Beyond NAB Webcast Series at avid.com/beyondnab



Hot new products from NAB2012

AUDIO CODEC

DTS Express

Proven, high-quality, low-bit-rate audio codec used for Blu-ray secondary audio, BD Live and other similar applications; features constant bit rates from 48kb/s to 512kb/s; fully compatible with electronics devices via a DTS Digital Surround real-time transcoder; uses exclusive "Fit-To-Stream" technology for digital delivery.

www.dts.com

ATSC ENCODER Evertz 3480ENC

Supports multiple combinations of HD-SDI and SD-SDI inputs; uses high-quality MPEG-2 distribution profile video encoder and Dolby AC-3 for audio encoding packaged in a 1RU form factor; includes built-in stat mux for outputting MPTS over IP; provides input frame syncing, loudness control, automatic input failover, and internal audio and video monitoring.

www.evertz.com.

MULTICHANNEL VIDEO SERVER

DVS VENICE

New 2U chassis provides solution to growing demands for smaller systems in limited space; offers RAID-6 protected drives, two or four channels for ingest, and playout and transcoding; optional internal media storage up to 9TB raw capacity; uses USB 3.0 interface for fast media backup to portable drives.

www.dvs.de

FILE-BASED TRANSCODER

Elemental Server

File-based processing system delivers simultaneous, faster-than-real-time conversion of multiple HD and SD video streams on devices including TVs, PCs, tablets and mobile phones; ideal for producers and distributors with large-scale transcoding and video on demand applications.

www.elementaltechnologies.com

MEDIA TRANSCODER

Envivio Muse iTV

Transcoder for broadcast and OTT applications; has improved compression efficiency providing more Internet renditions per RU, as well as HD, SD and mobile outputs; provides source time code information in different multiscreen output formats for highlight editing and manipulation; SCTE 35/104 ad insertion for TV Everywhere and Internet TV applications; supports Apple iOS 5 functionality.

www.envivio.com

GPS MASTER CLOCK ESE ES-185U/NTP

Twelve-channel GPS receiver provides master clock and TC generator signals; receiver tracks up to 12 satellites simultaneously, although reception of only one is required for accurate time data to be output; accuracy better than 10ns, and is entirely self-setting; automatic DST correction; provides one PPS output and a nine-digit LED display.

www.ese-web.com

DUAL-CHANNEL 3-D VIDEO LEGALIZER

Eyeheight LE-3D



Allows video legalization parameters for left and right video channels to be adjusted quickly and precisely from a single operating panel; LCD push-buttons with backlit legends guide operators quickly through the legalizer's various control modes, which include RGB, YUV or composite mode selection, clipping level, soft clipping knee, luma and chroma gain, black level, and hue rotation; six user memories are available to store group settings.

www.eveheiaht.com

RACKMOUNT DIGITAL VIDEO RECORDER

Fast Forward Video sideKick HD Studio

New, rackmountable version of sideKick cameramounted DVR occupies only a half RU in width and 2RU in height; directly compatible with side-Kick HD, which allows direct transfer of field footage stored on the unit's 2.5in SSD; easy integration with NLE systems and other content sources allows for fast and seamless editing playback to air; industry-standard RS-422 control; includes standard analog and AES I/O, as well as GigE port for uploading and downloading of content.

www.ffv.com

Matrox Avio F120



Extends two single-link DVI video, KVM, audio and USB devices from the host system out to 6562ft over a single duplex LC-LC fiber-optic cable; uncompressed FO transmission maintains graphics performance and full frame-rate HD video with no latency; system-agnostic design and wide OS compatibility facilitate plug-and-play deployment.

www.matrox.com

Solid State Logic C100 HDS V5



Implements dual operator mode, which provides two operators the ability to have independent physical controls and access to shared audio assets through a single console processing engine, routing and I/O configuration; allows for an unlimited number of consecutive eight-channel fader bays to be assigned to a second operator; bays can be located at either end of a C100 console, or separated and installed in a remote location such as a production gallery.

www.solidstatelogic.com

INTERNET MEDIA SERVICES PORTFOLIO

Haivision HyperStream

Simplifies and automates media distribution through cloud transcoding and CDN connectivity for delivering high-quality, adaptive, live HD video OTT to Internet viewers; available as both a user-controlled SaaS and as a fully managed service; designed to bring together the power of cloud-based transcoding on the Amazon Elastic Compute Cloud (Amazon EC2) and easy connectivity to Akamai's SOLA Media Solutions for global delivery, security and analystics.

www.haivision.com

VIDEO SERVER Florical Acuitas

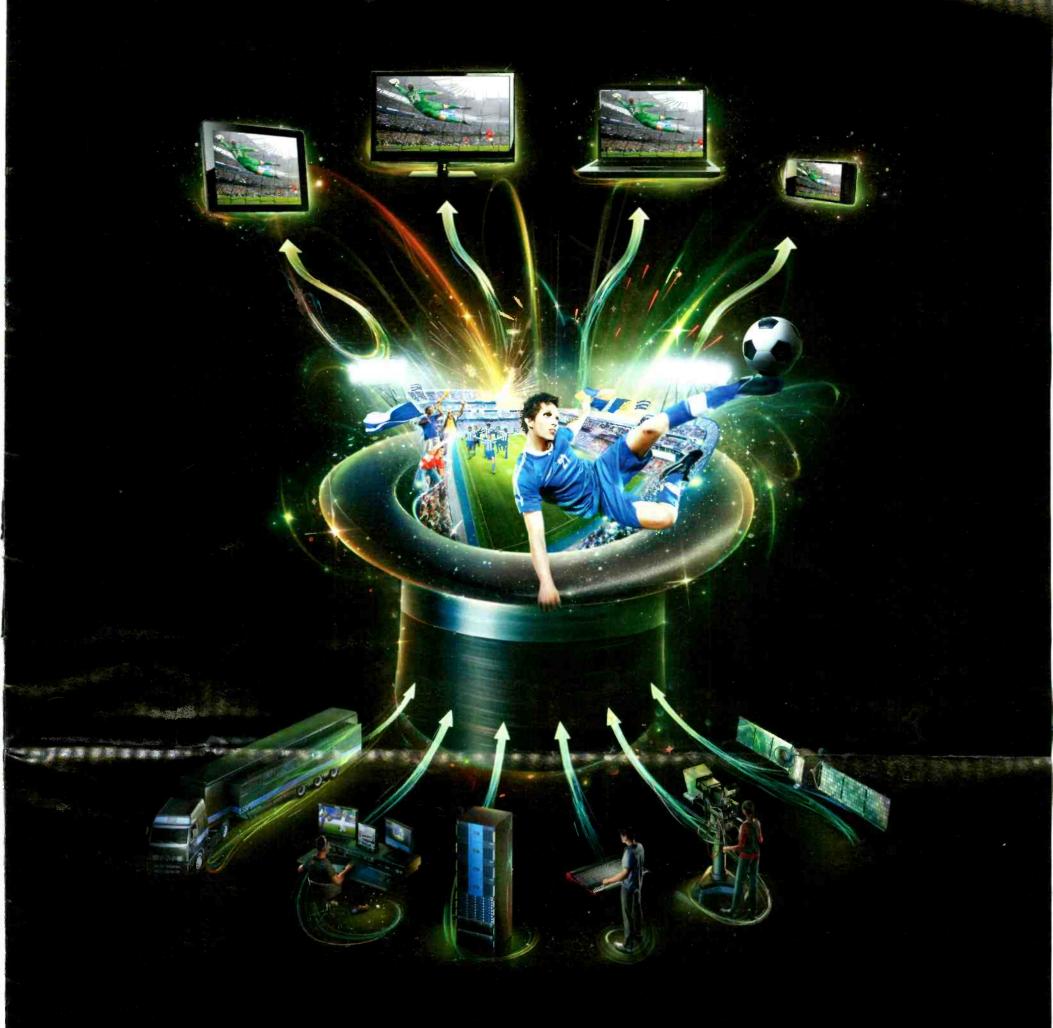
Uses off-the-shelf, IT-based components to provide up to two HD/SD channels with graphics and effects; provides multiple scene transitions; integrated graphics and animation; text crawls EAS/Amber alerts; provides SD-to-HD and HD-to-SD signal conversion on playout; supports MPEG-2, AVI, to 50Mb/s or 100Mb/s I-Frame: 4:2:2 or 4:2:0.

<u>www.florical.com</u>

STORAGE SYSTEM FOR-A LTS-50

Storage appliance uses a linear tape file system (LTFS), which records video on tape as files and enables the reading and writing of files from a PC via FTP; can create original and duplicate copies with the installation of an external LTO drive; can be controlled through the company's LTR Browser software, and another optional proxy generator can be configured to automatically create low-res proxy files and thumbnails when archiving MXF files.

www.for-a.com



WORK SOME MAGIC INTO YOUR WORKFLOW

Content comes in from an assortment of inputs. You have to deliver it to a wide range of outputs. What happens in between can set you apart. Selenio integrates all processing, compression and IP networking into one unified platform. It's so brilliantly simple, you'll think it's magic.



SELENIO, broadcast.harris.com/selenio



Tell your story. Touch your fans.





With more than 60 hours of video content uploaded to YouTube every minute*, people are producing high-quality video content in new ways every day. The good news is, you don't have to be a major TV studio to get in the game.

NewTek Live Production Solutions allow you to produce HD quality television. No more complex hardware, software or process diagrams. Spend more time getting your story to your fans, and less time worrying about how to reach them.

Everywhere.



- Volumes of signature looks to make each program distinct.
- High-capacity media storage for a high volume of project work.
- Flexibility to add up to eight camera angles from show, to show
- Built-in live streaming at the push of a button.
- Stream, record, project and broadcast—all at once.

For more information, visit newtek.com today.





Hot new products from NAB2012

PRODUCTION SUITE

Primestream XDCAM support

Now integrates with the Sony XCDAM Station family of professional media recorders; XDCAM Station users can now easily import content into FORK's media asset management software using the FORK Ingest module; in addition, users can now use FORK to control the XDCAM Station in both recording and playout modes, in effect adding master control playout and production automation capabilities to the XDCAM Station.

www.primestream.com

CHANNEL PLAYOUT DEVICE

Harmonic Spectrum channelPort



Integrated channel playout device for Spectrum media server; combines channel branding and master control switching with clip playout; supports four SD/HD channels per RU with up/down/crossconversion; includes EAS support; fits seamlessly into existing production and playout infrastructures, reducing complexity and the time it takes to launch new services.

www.harmonicinc.com

THUNDERBOLT CONNECTIVITY AJA T-TAP



Bus-powered device uses Thunderbolt connectivity to provide high-quality 10-bit SD, HD and 2K output through SDI and HDMI connections; adapter enables a simple, unobtrusive means of moving professional video and audio out of any Thunderbolt-enabled Mac system; supports SD, HD, 2K and 3-D 10-bit video over HDMI and 8-channel embedded audio.

www.aia.com

MEDIA ASSET MANAGEMENT

Front Porch DIVAdirector V5.0



Cost-effective MAM enables operators to search, locate and retrieve stored media directly from desktops via Web browsers; HTTP-based adaptive streaming allows browsers to seamlessly and dynamically switch between different A/V bit rates depending on network conditions and CPU power; provides reliable, consistent playback without stutter or buffering; supports both Windows 7, Mac OS and most browsers.

<u>www.fpdigital.com</u>

MEDIA CONVERGENCE PLATFORM

Harris Selenio



New features include MDX2 multiplexer module to reduce video headend infrastructure for DTV broadcasters, as well as a built-in DVB-T2 gateway that can combine up to eight physical layer pipes within a single output stream enabling delivery of multiple tiers of digital services; MDX2 also features a built-in SFN adaptation for signal distribution across large over-the-air DTV networks — ideal for DVB-T/T2 and ISDB-Tb standards.

www.broadcast.harris.com

ENVIRONMENT Avid Interplay



Real-time system enables broadcast news crews to acquire, access, edit and finish stories from any location; leverages a cloud-based architecture supporting a distributed environment that spans multiple locations and time zones; automatically manages the transcode, upload and check-in to any connected Avid Interplay system; pre-defined output processes provide one-button simplicity.

www.avid.com

MULTIVIEWER

Grass Valley Trinix NXT



Can be added as an option to all Trinix frames; enhancements include on-screen mouse and cursor functionality to expand individual tiles to full screen, powerful signal monitoring, status, alarming functions, and the ability to easily import presets.

www.grassvalley.com

SSD RECORDER

Blackmagic Design HyperDeck Studio Pro

Solid-state recorder with four channels of 3Gb/s SDI I/O, Thunderbolt I/O, and full HDMI and analog I/O with XLR connectors for audio and time code; supports full 4K playback using Apple ProRes; user-friendly VTR-style design with function buttons and jog wheel; external RS-422 control; high-resolution LCD screen displays time code and transport information plus full color thumbnail of the current clip.

www.blackmagic-design.com

SLOW-MOTION SYSTEM

Ikegami Hi-Motion II

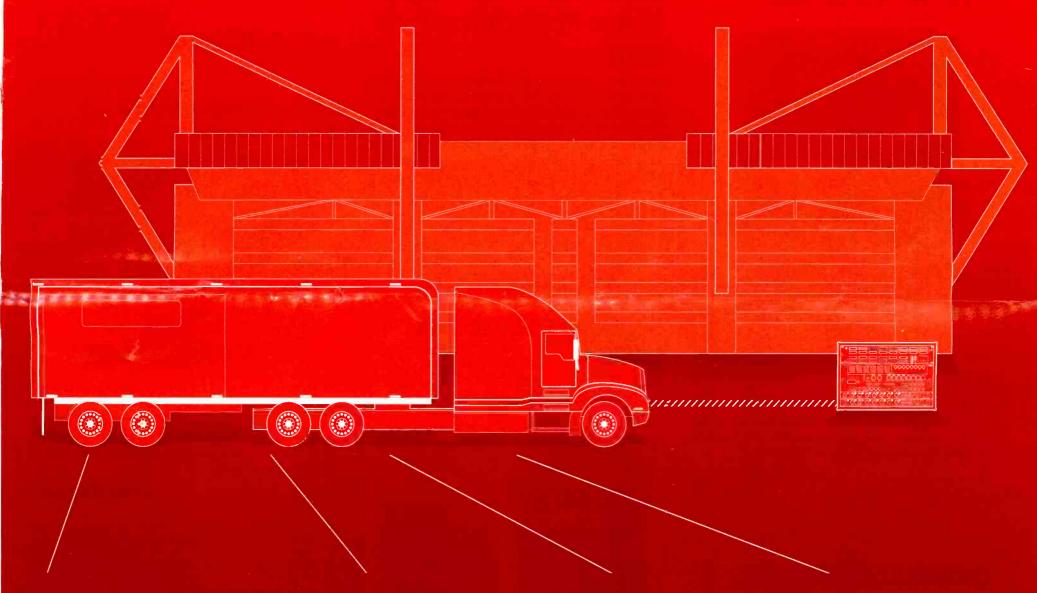
Uses a three-CMOS-sensor camera head with 96GB of built-in memory to deliver greater than 10X speed for ultra-slow-motion playback of HD sports action; dual-format 1080i/720p system provides simultaneous output of live normal-speed video and ultra-slow-motion replay video; can be used as both a traditional HD portable/field camera and an ultramotion HD camera that can work side-by-side with other HD cameras on production trucks.

www.ikegami.com





Integrated Real-Time Solutions for Studios, Mobile Productions & Stadiums



SIGNAL TRANSPORT & ROUTING

- MEDIGRNET
 Fiber-based Real-Time Media Network
- ROCKNET
 Performance Audio Network
- RILINK NEW

 Global Fiber Service

VIDEO PROCESSING

- Up-/Down-/ Cross-Conversion
- Quad Split
- Frame Store Synchronizer
- Embedder/De-Embedder
- Test Pattern Generator
- On-Screen Display
- Timecode Insertion & Display

INTERCOM

- ARTIST
 Digital Matrix Intercom
- PERFORMER
 Digital Partyline Intercom
- ACROBAT
 Digital Wireless Intercom

TWO-WAY RADIO

- RIFACE
 Universal Radio Interface
- AIR / PRO / MAX
 Radio Headsets

IP STREAMING

Inmarsat BGAN X-Stream

Offers guaranteed, on-demand streaming data rates from a minimum of 384kb/s up to approximately 450kb/s; no external or additional hardware required; higher bandwidth allows camera operators to pan in for close-ups and pan out for panoramic views, or capture action as it unfolds behind the reporter.

www.inmarsat.com

Linear Industries LEX2000

Generates an ASI or SMPTE-310 output from multiple audio, video and metadata sources; MPEG-2 encoder uses intelligent scene analysis, adaptive decision logic and nonlinear quantization to achieve excellent quality video, even with multiple video programs and bandwidth constraints; its statistical multiplexer applies multilayer control algorithms to optimize encoding rates of multiple MPEG-2 streams.

www.linear-tv.com

MEDIA INTEGRATION SOFTWARE

Marquis Broadcast Medway 2.6

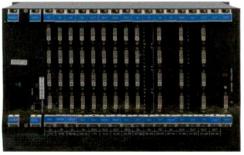
Unifies multivendor systems; new version 2.6 includes Pre-Flight Check to verify transfer before commencement; adds enhanced Audio Matrixing with Panning, which allows for detailed control over how the input channels are mapped to the output channels; conforms EDLs into single clips; adds support for Avid Media Composer 6 on Windows and Mac platforms; supports closed captioning.

www.marquisbroadcast.com

MATRIX SWITCHER

Kramer VS-3232D





High-performance DVI and HDMI matrix switcher chassis; modular and populated from 4 x 4 to 32 x 32 in increments of four inputs and/ or four outputs; flexible infrastructure; inputs support copper, fiber or twisted pair and all can be used at the same time; maximum data rate 3.2Gb/s per graphics channel up to 10.4Gb/s total.

<u>www.kramerus.com</u>

PROMPTER

Listec PromptWare series

Ideal for a wide range of scenarios, including field contribution; PW-04 model turns an iPhone, iPod Touch or Android phone into a professional teleprompter; tablet-adapted PW-10 offers an adjustable cradle clip, supporting a wide range of tablets including iPad 1, 2, the recently released iPad 3 and various Android 10in tablets; PromptWare Plus software application works with Apple iPod/iPhone iOS 3.2 and above, and Android 2.2 and above.

www.tiffen.com

CELLULAR VIDEO UPLINK BACKPACK LiveU LU70



Features One-Touch-Live (OTL) mode with automatic adjustment of video and point-to-multipoint distribution, whereby a single device can broadcast live to multiple, varied destinations concurrently; internal antennas support a larger number of frequencies, ensuring enhanced signal performance with long-range reception and increased uplink capability; new external antenna array provides additional resiliency for extreme scenarios, such as heavily crowded locations; supports up to 14 cellular links simultaneously.

www.liveu.tv

AUDIO RECORDER

MAYAH Communications Flashman II



Adds ability to record while transmitting audio back to studio; records to SD cards or USB sticks; supports WLAN, UMTS/3G and Ethernet IP connections; adds MPEG-4 HEv2 and MPEG-4 AAC ELD audio formats; two XLR inputs and two line-out/headphone jacks.

www.mayah.com

Linear Acoustic AERO.lite



Two-channel loudness controller in 1RU package; offers HD/SD-SDI, AES, and analog inputs and outputs; audio is extracted from any HD/SD-SDI path for processing; audio can be re-embedded into any or all SDI pairs; GPI/O alarms and controls; options include integrated ITU-R BS.1770 loudness meter, SNMP and external redundant power supply.

www.linearacoustic.com

QAM MODULATOR, DEMODULATOR

Microwave Video Systems PortaQAM MVS-4101-P, MVS-5108-P

Sends ATSC 19.39Mb/s data streams over new or existing analog radios in frequencies from 2GHz to 40GHz; DVB standard channel encoding; real-time code stream monitoring; PCR correction; compliant with DVB-C and MPEG-2 standards.

www.microwavevideosystems.com

The New SDT ULTRA HE Series (High Efficiency), reaches a system efficiency higher than 35% avg.

This is our way to create the future.



MAM MODULE

Myers Media Asset Management Module

For the ProTrack TV broadcast management system; designed to provide an effective and affordable system for management media assets; confirms to traffic/scheduling personnel whether a media asset is available and if so, move it to where it's required, in advance of when it's needed; automatically triggers the movement of media assets to/from playback and archive, based on what's being inserted in the ProTrack TV schedule environment.

www.myersinfosys.com

TRANSCODER

Harmonic ProStream 1000 with ACE



Capable of transcoding up to 20 HD streams and 80 adaptive streaming profiles in a single, power-efficient 1RU appliance; supports any-to-any and any-to-many video/audio transcoding with automatic audio level adjustment; statistical multiplexing and scrambling and descrambling; simultaneously transcodes video content for both broadcast and OTT mobile and Web applications.

<u>www.harmonicinc.com</u>

REPEATER

Screen Service Broadcasting ARK ECHO ATSC

Available in 1RU for 15W or 2RU for 30W and 125W; has the ability to receive an off-air DTV signal to amplify and downconvert it to an intermediate frequency, which after a filtering and equalization process, is ready to be upconverted on the same frequency and with the same data as the original signal.

www.screen.it

IP TRANSPORT MODULE

Nevion Ventura VS902

Transports secure ASI/SD/HD/3G signals over a common unified platform for access to virtually any environment; features Streaming Intelligent Packet Switching (SIPS) for video-over-IP protection switching using dual network feeds, virtual element management for full network monitoring, new 10GigE interface and SMPTE 2022-6 video encapsulation.

www.nevion.com

AND AUTOMATION Evertz Mediator



New features include automatic join-in-progress with content dead roll, live break insertion without altering the automation list for breaks in live events, a new graphics workflow with integrated template tools, and new configuration tools to customize workflows, tasks, and playtime templates; cost-effectively scales services across multiple linear and nonlinear channels.

www.evertz.com

P2 HD CAMCORDER

Panasonic AG-HPX600



P2 HD camcorder provides 10-bit, 4:2:2 AVC-Intra recording with a newly-developed 2/3-type MOS sensor; uses a new series of memory cards called microP2 card, which have an SD card form factor; both camcorder and cards will support Panasonic's newest video compression platform, AVC-ULTRA; options include wireless metadata input, proxy recording and variable frame rates (available this fall).

www.panasonic.com

PRODUCTION SYSTEMS Newtek TriCaster series



Three new systems utilize a completely re-engineered platform and introduce new capabilities; TriCaster 8000 is designed for large, complex events; provides full integration of social media production tools, virtually limitless scalability with third-party router support, recordable macros, extensive effects and graphics capabilities with eight M/E rows; other models include the TriCaster 855 with 24-channel switching and the TriCaster 455, which is targeted to mobile producers and supports 14-channel switching.

www.newtek.com

MASTER CONTROL SYSTEM

Miranda iTX MC



Integrates Miranda's iTX integrated playout platform with its master control system; combines playout automation with live event functionality; includes an automation system with roll-under and join-in-progress features; integrated HD/SD video server; input signal switching and processing; able to seamlessly switch between multiple HD or SD sources with a mix of stereo or 5.1, PCM or Dolby E audio; supports rich branding of logos, in-show promos, junctions and live data tickers.

www.miranda.com

GRAPHICS PROCESSING CARD

NVIDIA GPUDirect

Enables seamless and fast accessibility of the graphics and image processing power for NVIDIA Quadro and Tesla GPUs; offers ultra-low-latency input and output across a wide range of I/O devices; eliminates delays of as many as 10 frames by enabling synchronized communications between I/O and GPU.

www.nvidia.com

FRAMERATE CONVERTER FOR-A FRC-30

Can be switched between motion compensation and linear conversions to deliver optimal results for various source material; built-in up/down/crossconverters deliver SD to HD, HD to SD, and 1080i to 720p conversions; supports 1080i59.94, 1080i50, 1080PsF23.98, 720p59.94, 720p50, 525/60 and 625/50; includes HD/SD-SDI and analog composite I/O; 1RU high and 1/2RU wide.

www.for-a.com.



Acuitas

The future is here.

Acuitas is a remarkably simple fully-integrated channel solution, powered by Florical's award winning automation suite. Acuitas provides reliable and affordable HD/SD playout, graphics, effects, up/down/cross conversion and frame-accurate switching. Build an entire TV station for a quarter of the cost without the constraints of traditional infrastructures; equipment built for the workflow- not vice-versa. Acuitas fits well as a stand-alone solution, in multi-channel facilities, or in enterprise-level HybridCasting models. Find your best of breed automation system from Florical - The Proven Leader of TV Automation Technology.



1.877.774,1082

FLORICAL.COM

sales@florical.com

WEB-BASED ROUTER CONTROL

PESA Cattrax Web



Uses most common Web browsers as the client interface to monitor and control routers in locations around the world; ideal for monitoring, post production or any networked remote location; compatible with the full line of PESA routers; can control matrix sizes from 16 x 16 to 1024 x 1024; operates over Ethernet via TCP/IP; communicates directly with the PESA PERC2000 router control system.

www.pesa.com

AUDIO BAG

Petrol Deca PS614



Roomy main compartment fully padded to safeguard delicate equipment; removable internal divider is sized to fit and help secure a Zaxcom Nomad mixer/recorder while offering access to the unit's XLR connectors; extra divider is supplied to accommodate a Sound Devices 788 mixer with CL8 controller attached; exterior front accessories pocket features detachable frame that holds up to six wireless receivers and transmitters; transparent top window allows easy viewing of controls.

www.petrolbags.com

VIDEO SERVER

XDT Catapult

Updated server includes new powerful syncing options, custom transfer filters and notifications; handles high-speed LAN and WAN data transfers, up to 114MB/s per standard Gigabit connection and 1GB/s per 10GigE connection; capable of saturating any network interconnect; available for Windows, Linux and Mac OS X.

www.xdt.com.au

AUTOMATED PLAYOUT SYSTEM

Pixel Power ChannelMaster

Fully integrated, scalable channel playout system provides cost-effective, reliable approach to deploying new channels; integrates storage, graphics, DVE, audio, subtitling, master control, live feed and long-form video playout within a single dedicated hardware platform; capable of integrating with any automation or MAM system by way of an open XML protocol; delivers a single complex channel or two simpler channels within 3RU; media may be ingested from live HD-SDI or SD-SDI using the system itself; supports file-based delivery under the control of a third-party MAM system.

www.pixelpower.com

PRODUCTION SUITE Primestream FORK 3.0



Manages and automates Adobe Premiere Pro, Sony XDCAM and Harmonic ChannelPort broadcast workflows; enables larger installations to quickly and more efficiently build workflows for multiscreen delivery; system includes FORK Xchange Suite, a new application Web portal into the FORK environment, giving broadcasters and media enterprises instant access to content from any Web browser.

www.primestream.com

AUTOMATED DIGITAL SUPPLY CHAIN

Xytech MediaPulse

Offers out-of-the-box automation for the entire production ecosystem; provides rapid integration to any MAM, delivery system, transcoder or file management system in the supply chain; features a completely configurable user interface; horizontally and vertically scalable; comprehensive offering of modules and options meets future growth and expansion requirements.

www.xytechsystems.com

AUDIO ANALYZER

Prism Sound dScope Series III

Measurement system designed for analog and digital audio generation and analysis, including digintal audio carrier parameters, acoustic transducers and Windows sound devices; provides controlled degradation and analysis of AES3 and S/PDIF carriers; measurement ranges from a few microvolts to more than 150V RMS, and less than 1Hz to more than 90kHz.

www.prismsound.com

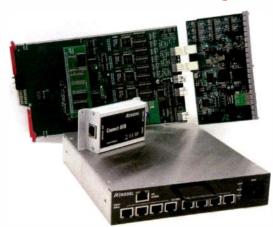
GLOBAL MEDIA WORKFLOW TECHNOLOGY

Quantel QTube

New multisite working capability enables users to access and seamlessly combine content from anywhere to anywhere; users can work with media held on servers in multiple locations anywhere in the world and produce a finished edit over IP incorporating clips from different sites; Remote Effects feature opens up new creative options for users, such as enabling dissolves and wipes to be added between clips wherever they are held.

www.quantel.com

ROUTER Riedel Communications MediorNet Compact



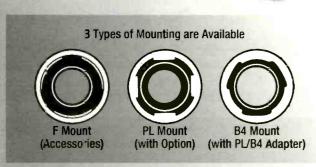
Provides a network bandwidth of 50Gb/s—enough capacity for bidirectional transport of 12 HD-SDI signals, dozens of MADI streams or GigE signals, and hundreds of audio channels or intercom ports; provides connectivity for four analog audio I/Os with mic preamps and a dynamic range of 117dB; also features an interface for Riedel RockNet digital audio networks, two DisplayPort outputs, three GigE ports, and connections for serial data and GPIs.

www.riedel.net





VFC-7000 Operation Unit



HD Variable Frame Rate Camera

C-7000 "Flash EYE"





High-speed HD Recording

Compact, lightweight and configured as an all-in-one selfcontained unit, the VFC-7000 is an easy to operate variable frame rate camera that is capable of High-speed 700 fps HD full frame recording. Frame rate can be varied from 24 to 700 fps. F mount (Option: PL mount) is available. Also DC drive is supported, making it optimal for recording outdoors and in other environments with no power source.

www.for-a.com

- Head Office (Japan)
- USA Western (CA)
- USA Eastern & Midwest (NJ)
- USA Southern (FL)
- Latin America & Caribbean (FL)
- Canada (Toronto)

Korea (Seoul)China (Beijing)

- Tel: +44 (0)20-8391-7979 Tel: +39 02-254-3635/6 Middle East-Africa (Dubai)

Tel: +81 (0)3-3446-3936

Tel: +1 714-894-3311

Tel: +1 201-944-1120

Tel: +1 305-931-1700 Tel: +1 305-931-1700

Tel: +1 416-977-0343

Tel: +971 4-887-6712 Tel: +82 (0)2-2637-0761 Tel: +86 (0)10-5170-9870

Continuous Innovation

MASTER CONTROL SYSTEM

Ross Video MC1



Full-function master control switcher on a single openGear card; includes mixing, keying, onboard logo storage, relay program bypass protection, EAS and Amber Alert crawl generation; dedicated, hardware-based system offers robustness and reliability; designed to be integrated with a plant routing system; offers easy integration with the user's choice of automation system.

www.rossvideo.com

CAMERA LENS SYSTEM

Schneider Optics iPro



System is built to enable pro-quality imagery with the iPhone 4 and 4S; adds benefit of interchangeable wide-angle, fisheye and telephoto lenses in every shot; lenses use a bayonet mount to securely fasten onto the custom iPhone case; also gives users option of attaching the handle on the left or right side; handle enables the phone to be attached to a tripod.

www.schneideroptics.com

ENCODER

Screen Service Broadcasting ENC 333

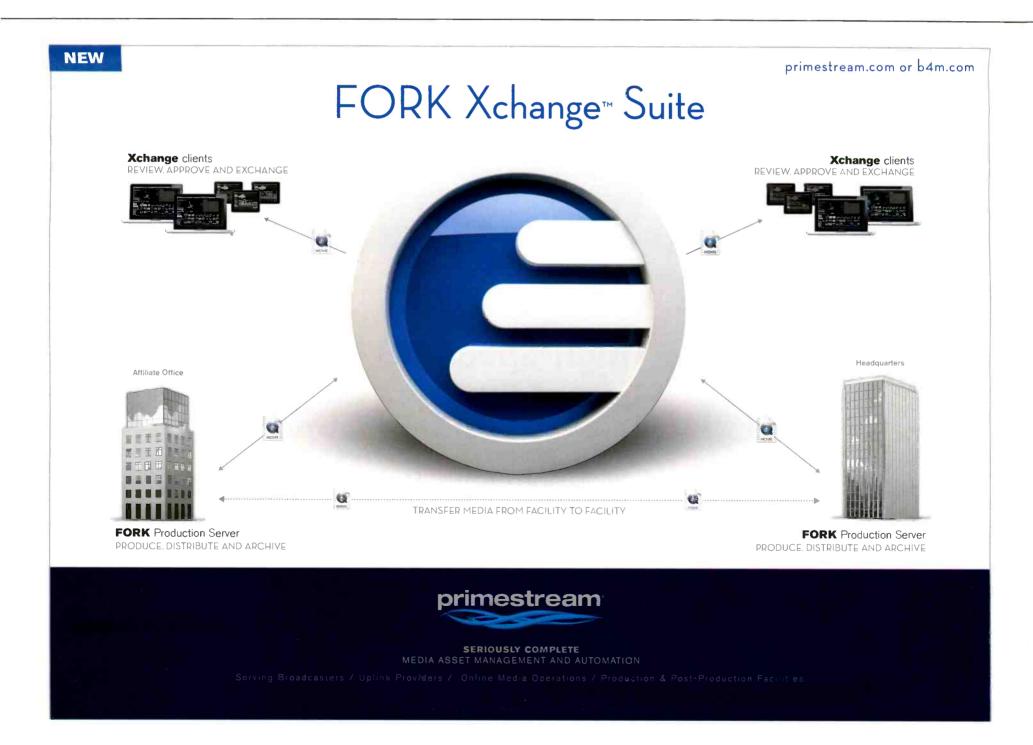
High-definition system encodes multiple HD and SD formats; H.264 and MPEG-2 video encoding technique guarantees low output bit rate with flexible ranges from 2Mb/s to 25Mb/s; audio stream is coded using MPEG-1 Layer II, AAC-HE and AAC-LC, or Dolby Digital Pro; A/V elementary streams multiplexed in an MPEG-2 transport stream for output over an ASI link; next to PAT and PMT, PSIP support includes MGT, TVCT and CVCT, while SI support includes NIT, SDT, CAT and TDT.

www.screen.it

GRAPHICS SYSTEM PlayBox Technology TitleBox Dashboard

Provides remote control of TitleBox objects arranged in a playlist with hierarchical structure, ideal for known events, and full flexibility to add and change events needed in live programs.

www.playbox.tv



SSD SERVER

SeaChange MSV1200XD



Flash memory-based video server; at 3RU, provides 2.4TB or 4.8TB of RAID 6-protected storage; supports SD and 1080i and 720p HD over dozens of video formats; I/O signals are SMPTE 259M or SMPTE 292M-compliant with up to eight embedded AES pairs and various modes for VBI and ANC; VITC and LTC supported on each SDI I/O.

www.schange.com

WIRELESS MICROPHONE

Shure FP Wireless



Supported with intuitive, flexible components; includes portable receivers and XLR plug-on transmitters; quick setup with just two presses of a button — the first to find a clear frequency and the second to sync with the transmitter; compatible with up to 20 systems simultaneously; XLR and 3.5mm cable receiver output options, single transmitter and dual transmitter system options.

www.shure.com/americas

MULTIVIEWER

Sierra Video Sierra View



Cost-effective way to combine and display multiple images on a single or dual monitors; available in sizes up to 16 inputs in 1RU, or up to 64 inputs in 3RU with a dual multiviewer configuration; ideal for use in control rooms, studios, small broadcast applications and pro AV environments.

www.sierravideo.com





CLOUD INTERFACE

Signiant Media Shuttle



Provides easy-to-use interface for secure media delivery to public cloud storage; easily configured within minutes by media professionals; tools allow work group leaders to brand their own filesharing site with custom graphics and logos, and to configure notifications and language settings; provides centralized visibility of transfers, including job status, bandwidth usage and user activity.

www.signiant.com

ETHERNET SWITCH

Small Tree ST10G-28Cat6

24-port 10GigE switch offers video editors the ability to support 10GigE networks without needing expensive optics and cabling; features Layer 2 switching, IP v4/v6 routing, QoS support and management capabilities; built for superior flexibility; enables video editors to edit Pro Res 4444, uncompressed and 2K over affordable, ubiquitous Ethernet.

www.small-tree.com

SDI AUDIO MONITOR

Wohler AMP1-16M



Monitors embedded audio in 3G/HD or SD-SDI streams; 1RU high; clear display of levels and critical information via 2.4in LED-backlit LCD displays; one-touch monitoring and summing of any selected pair(s) via built-in speakers, headphones or XLR balanced outputs.

www.wohler.com

BROADCAST RECORDING SYSTEM

Solid State Logic Live-Record



System connects via standard optical MADI, so it can connect directly to MADI-equipped digital mixing consoles, venue audio distribution infrastructure or broadcast routers; presents cost saving opportunities when compared to hard disk recorders or other DAW recorder systems; can record up to 128 channels at 24-bit/48kHz or 64 channels at 24-bit/96kHz.

www.solidstatelogic.com

Profits, people and programming.

We'll help you build all three.



Tap the power of our pyramid! Linear Encoding Xponents™ and the LEX2000™ Encoder Series offer broadcasters a low cost, high quality encoding architecture that lets you build your business and viewership at a comfortable pace. We'll help you tap the power of our HD/SD pyramid for your broadcast operation.

Build your LEX today! Call Paul Dadian at 513.847.1220 or Doug Thompson at 309.689.0301









LEX2800 (1-8 programs)

LEX2200 (1-2 programs)



LINEAR Not just digital. Better digital.™

Linear Industries, Inc. 2531 Technology Dr., Suite 310 ▲ Elgin, IL 60124, USA ▲ 1.847.428.5793 ▲ www.linear-tv.com

©2012 Linear Industries. All rights reserved. Linear Industries Inc. strives to present accurate product data but reserves the right to change specifications without prior notice LINEAR products, features and technology may be covered by one or more U.S. or foreign patents.

REFERENCE MONITOR

Sony BVM F250

Reference OLED monitor; delivers outstanding black performance and quick response with virtually no motion blur; has wide color gamut; all-new 12-bit output digital DSP engine provides nonlinear cubic conversion color management for precise color reproduction, picture uniformity; HDMI inputs support up to 1920 x 1080; four option decoder slots for analog, composite, Y/C, components, RGB and digital 3G/HD/SD-SDI.

pro.sony.com

TRANSCODER

Telestream Vantage Transcode HE Server

Accelerates transcoding and packaging for multiscreen delivery, including OTT, Web, mobile and IPTV; uses new Telestream LightSpeed technology to produce high-quality images quickly using parallel GPUs, including AMD and NVIDIA, and multicore CPUs, including AMD and Intel; addresses the unique requirements of adaptive bit rate (ABR) workflows to streamline the entire process of source file decoding, video processing, parallelized H.264 encoding, packaging, encryption, quality control and delivery.

www.telestream.com

VIDEO/KVM ROUTER

Thinklogical MX48



Compact, 6.22Gb/s high-bandwidth system providing complete, end-to-end routing of video and peripheral signals over multimode or single-mode fiber-optic cable; protocol-agnostic router supports DVI, dual-link DVI, 3G, HD, SD-SDI, dual-link SDI, USB HID, USB 2.0 at 480Mb/s, FireWire 800, serial and bidirectional audio; scalable from 16 to 48 ports.

www.thinklogical.com

LCD MONITORS

TV Logic LVM series

New LVM-174W and LVM-212W monitors are designed for broadcast OB, TV studio and QC racks; both feature A/B 3G-SDI inputs, as well as HDMI and DVI inputs and closed captioning support; LVM-247W is designed for broadcast QC, production and post production; shares all features of the LVM-174W and LVM-212W, as well as color critical features like a built-in 3-D LUT.

www.tvlogicusa.com

TRANSPORT SWITCH

T-VIPS TNS544



ASI to IP switch enables operators to migrate from ASI to IP transmission without loss in quality or reliability; affords benefits in flexibility and with lower OPEX; provides intelligent redundancy switch-over between MPEG transport streams; ensures reliable transmission by continuously monitoring all inputs and switching seamlessly to the back-up stream if errors are detected or a signal is lost.

www.t-vips.com



ESE's economical SDI Distribution Amplifiers support 3G, HD & SD, and offer automatic input rate detection, reclocking & equalization, DVB/ASI compliance, a reclocking bypass switch, a variety of enclosures, and optional DC operation.

Also available are several HD/SD Pattern Generators and Sync Generators.

ESE, 142 Sierra Street, El Segundo, CA 90245 USA, Tel: (310) 322-2136



www.ese-web.com



ENCODER

Visionary Solutions AVN443



Enables encoding of HD and SD video via an HDMI/DVI-D or SDI input; suitable for all applications requiring cost-effective, low-bit-rate video distribution over IP networks; base model includes 480i SD encoding with closed captioning support; optional modules enable FEC and support for image resolutions of 720p, 1080i or full 1080p60 in an H.264 stream.

www.vsicam.com

BXF AUTOMATION INTERFACE

WideOrbit Native BXF

Live log integration between WideOrbit's traffic system and its master control system; provides a fully integrated IT and DTV MC system; two-way, real-time information exchange enables electronic logs and immediate dubbing; provides content status, management of outdated assets and purging capabilities; increases reconciliation accuracy; streamlines last-minute log edit and updates segment timings.

<u>www.wideorbit.com</u>

AUDIO CONSOLE

Yamaha CL series



A Dante network-based series of three consoles featuring remote I/O; CL5 offers 72 mono + eight stereo inputs with 34 faders; CL3 is a 64 mono input system, with eight stereo inputs, and 26 faders; CL1 console supports 48-mono + eight stereo inputs, with 16 faders plus two master faders.

www.yamahaca.com

HD LENS

Canon HJ17ex6.2B



HD lens delivers a broad focal length range from 6.2mm to 106mm (212mm with built-in 2X extender) and a M.O.D. of 0.4m (shortened by approximately 30 percent compared to previous models) for close shooting in news situations.

www.canonbroadcast.com

GRAPHICS AND VIDEO CONTENT SYSTEM

Vizrt Viz Content Pilot

Now fully integrated with the Viz Media Engine video production system; journalists in the newsroom can search for video clips, edit and save them, and then add them to the story — either as video or as video in graphics from their desktop PCs in the newsroom; for last-minute editing, video clips, images and text can also be edited by the Viz Content Pilot operator in the control room.

www.vizrt.com

AUDIO CONSOLE

Wheatstone D-5.2

Intended for major market live news; each input fader strip includes seven alpha displays for quick visual feedback of current source, alternate page source, A and B presets, bus-minus destination, channel mode and gain setting; features comprehensive IFB capability; includes 18 dedicated mixminus buses with confidence feeds plus direct mixminus (bus minus) feeds from every input channel; can be configured from 12 to 128 input faders.

www.wheatstone-tv.com

VITEC MP-7440

Encodes SD or HD AVC/H.264 content up to 1080p resolution at 30fps; is a full hardware system that does not consume valuable CPU resources because it is based on the VM-4400 ASIC, which offers dedicated AVC/H.264 video and AAC-LC audio codecs; included Imager software enables users to preview, control and schedule their video recordings.

www.vitecmm.com

ADVERTISERINDEX PAGE # PHONE # WEBSITE **AJA Video** 7 +1-530-274-2048 aja.com **Avid Technology** 9 800-949-AVID avid.com **Blackmagic Design** 5 408-954-0500 blackmagic-design.com **ESE** 25 310-322-2136 ese-web.com **Evertz Microsystems Ltd IBC** 877-995-3700 evertz.com Florical Systems Inc. 19 800-372-4613 florical.com For-A Corp. of America 21 Harris Broadcast Corp. 11 800-231-9673 broadcast.harris.com **Linear Acoustic** 23 717-735-3611 linearacoustic.com Linear Industries Inc. 847-428-5793 24 linear-tv.com **Matrox Electronic Systems** 3 800-361-4903 matrox.com Newtek, Inc. 12, 13 210-370-8000 newtek.com Playbox Technology Ltd. BC 404-424-9283 playbox.tv **Primestream** 22 primestream.com Solid State Logic **IFC** 212-315-1111 solidstatelogic.com **Riedel Communications** 15 818-241-4696 riedel.net **Screen Service Broadcasting** 17 +39 030 57831 screen.it

Create, Manage & Deliver...



...Using Evertz' File-Based and Media Asset Management Solutions

Today's business models are growing in complexity with more channels, Video-On-Demand, Over-The-Top, websites and other evolving distribution channels. Operations are consistently faced with operational challenges, tighter budgets, shorter timelines, all while producing more content for consumer demands.

Evertz' File-Based Solutions eliminates these common challenges by bridging the gap between yesterday's traditional television architecture and today's current file-based architectures, while continuing to innovate for future consumer demands.

Create, Manage, and Deliver content with Evertz File-Based Solutions:

• **Mediator**: Content & Workflow Management and Automation platform designed to optimize your infrastructure utilization and operational workflows.

OvertureRT LIVE: Cost-effective Live and File-Based playout engine with integrated master control and advanced channel branding features.

Evertz Media Server: Content acquisition & playout platform along with Evertz' SuperNAS™ provides multi-tiered storage, unparalleled I/O scalability and enterprise-quality reliability.



www.evertz.com • 1.877.995.3700





Evertz (Canada HQ) +1 905-335-3700 sales@evertz.com

US West Coast Sales +1 818-558-3910 uswestsales@evertz.com Washington DC Sales +1 703-330-8600 dcsales@evertz.com

South-East Europe Sales +385 1-2001-665 SEeuropesales@evertz.com New York Sales +1 201-337-0205 newyorksales@evertz.com

Dubāi Sales +971 4-422-9113 middleeastsales@evertz.com UK Sales +44 (0)118-935-0200 uksales@evertz.com

Asia Pacific Sales +852 2850-7989 asiapacificsales@evertz.com







From a Single Channel Playout Server to a Multi Channel Turnkey Broadcast Centre

It's All in a PlayBox



- Single and Multi Channel Playout Automation with interactive CG and Graphics
- Traffic Management Media Asset Management and Archive Newsroom System
- Remote Redundant Playout Ad Insertion and DPI Time Shift
- IPTV and Internet TV Solutions
- Available in HD / SD and DVB (ASI/IP)

General Sales Contacts: sales@playbox.tv • Website: www.playbox.tv

- PlayBox UK +44 1707 66 44 44 PlayBox Bulgaria +359 2 9703050 PlayBox Romania +4 031106 5115
- PlayBox Turkey +90 216 3379402 PlayBox Germany +49 7251 302 0445 PlayBox Adria +381 113117286
- PlayBox Albania +355 44 80 45 52 PlayBox USA +1 404 424 9283 PlayBox Asia Pacific +603 7954 3400
- PlayBox India +91 9811913333

Broadcast | sia 2012

Join PlayBox on Stand 4F2-06