Special Report
Hot new products from NAB2013
introducing DIMENSION TWO
surround sound television audio console
intelligent network · point-of-use I/O · IP communication

Wheatstone
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
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/ging3xca.

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.

Brad Dick, editorial director
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.

SmartView Duo
$695

Learn more today at www.blackmagicdesign.com/smartview
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 multiscrreen 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 on-air 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 multi-frame 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 bus minus (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 image sensor; combination of Falconbridge 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.fischercouplers.com

ADVERTISERS MARKED IN ORANGE
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**
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
TVELOGIC 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.sgbroadcast.com

NTP TIME SERVER
ESE ES-289E
Provides a simple method of putting accurate time information onto a network and referencing 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.esewe.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 — Dashboard 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

MULTISCREENCoding
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
LINEAR INDUSTRIES AT71-500-11
4RU x 19in x 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 timeframe 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 Options: 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
- Future proof 4K capability (TBA)
and more.

MULTIPURPOSE TWO 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.

FOR-A for a 4K Future
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.digimetrics.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 TAHOA 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
BVH 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.bvhbroadcast.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
FREZZ1 SKYLIGHT
Daylight-balanced light provides 650W output with 75W draw; weighs 4lbs; weather-proof housing makes it well-suit 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.frezz1.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
AVIS 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 Reduction (3DNR) technology to accurately detect and process images to reduce noise, achieving an S/N ratio of 60dB; supports MPEG:2 HD422@50Mbps, HD420e@35Mbps/25Mbps, MPEG IMX@50Mbps and DVCAK.
www.sony.com
COMPACT ROUTER
ENSEMBLE DESIGNS
BRIGHT EYE 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
POLI STREAM 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.screen systems.tv

GOLD MOUNT POWER SOLUTION
ANTON/BAUER QRC-4K-S
Attaches instantly to Sony F5/F55 CineAlta 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

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

LIGHT
VIDESENSE 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

ADVERTISERS MARKED IN ORANGE

LEX2000™
Encoder Series
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.

HITACHI
Inspire the Next

LEX2000-2 0-2 programs
LEX2000-4 0-4 programs
LEX2000-6 0-6 programs
LEX2000-8 0-8 programs

Light Videssence Vidnel VN100
www.videssence.tv

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

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PRIME or 3.5% today*
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(Ask for Dago)

LEX2000 Encoder Series
Hitachi
Inspire the Next

Hitachi Kokusai Electric America, Ltd.
2531 Technology Dr., Suite 310
Elgin, IL 60124, USA
1.847.428.5793
linear-tv.com

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**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 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 multi-language, 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

**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

**ADVERTISERS MARKED IN ORANGE**
**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

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**LED FRESENEL**

**LITEPANELS SOLA 12**

Designed to offer a powerful output of daylight-balanced 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

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**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

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**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

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**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

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**AV IP STREAM AND SDI SIGNAL MONITOR**

**CINEGY MULTIVIEWER 9.5**

Enables broadcasters and production houses to monitor streams from satellites, camera feeds, playlist 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

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**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

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**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

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**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

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**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 revenue per user.

www.datacast.com

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**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

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**INTERCOM SYSTEM**

**CLEAR-COM HELIXNET 1.1**

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www.envivio.com

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www.alcorn.com

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CIVOLUTION NEXGUARD

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www.avid.com
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www.nverzion.com

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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

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www.mediaexcel.com

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www.fairlightus.com

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www.vitecmm.com

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www.schneideroptics.com

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Brad Dick, editorial director

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**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 tri-level 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](http://www.alcorn.com)

**VIDEO SERVER**  
**Avid ISIS 2000**  
A cost-effective 64-bit self-balancing, distributed near-line file system that works with Avid Interplay to provide enterprise-wide 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](http://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](http://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 signals such as 1080p60 4:2:2 and 1080p30 4:4:4; all formats up to 1080p30; delivers uncompressed, artifact-free broadcast video and sound in sync.  
[www.ikegami.com](http://www.ikegami.com)

**STANDARDS CONVERTER**  
**Blackmagic Design Teranex**  
Provides extremely high-quality de-interlacing, upconversion, downconversion, SD and HD crossover, 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](http://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](http://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](http://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 allows seamless interfacing with users’ preferred applications, protocol, resolution and formats.  
[www.4bright.com](http://www.4bright.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.  
[www.aveco.com](http://www.aveco.com)

**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.azdenscorp.com](http://www.azdenscorp.com)
Acquire with AJA.

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

**ProRes** Avid DNxHD®

**Ki Pro Mini**

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

_Because it matters._
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.

STREAMING SYSTEM
Broadpeak
+screensCDN
Delivers high-quality content to multiple screens; includes the BkS100 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 multi-format servers, as well as the BkS200 and BkS300 multiformat servers, which provide optimized content delivery to PCs, smartphones and tablets.

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.

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.

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/reverse functionality, all of which can be coupled with a scene list allowing groups of scenes to be created and styled.

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.

PLAYOUT MANAGER
PlayBoxTechnology
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.

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.

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 pre-processing; 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 embedded audio channels.

MONITORING SYSTEM
Digital Nirvana
MonitorIQ
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.

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

500W TRANSMITTER
Linear Industries
AT71-500-11
4RU x 19in x 26in drawer size reduces installation footprint; nine temperature-controlled cooling fans provide optimal powerperformance 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.
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/beyondblog
**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](http://www.dts.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](http://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](http://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; SCATE 35/104 ad insertion for TV Everywhere and Internet TV applications; supports Apple iOS 5 functionality.

[www.envivio.com](http://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.esewe.com](http://www.esewe.com)

**SOFTWARE UPDATE**

**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 separately and installed in a remote location such as a production gallery.

[www.solidstatelogic.com](http://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 analytics.

[www.haivision.com](http://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; integrates 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 4:4:4.

[www.florical.com](http://www.florical.com)

**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](http://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

Harris assuredcommunications
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.
• 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.
PRODUCTION SUITE

**Primestream XDCAM support**

Now integrates with the Sony XCDAM Station family of professional media recorders; XCDAM 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 XCDAM Station in both recording and playout modes; adds master control playout and production automation capabilities to the XDCAM Station.

[For more information, visit www.primestream.com](http://www.primestream.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.

[For more information, visit www.fpdigital.com](http://www.fpdigital.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.

[For more information, visit www.grassvalley.com](http://www.grassvalley.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.

[For more information, visit www.harmonicsinc.com](http://www.harmonicsinc.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.

[For more information, visit www.aja.com](http://www.aja.com)

**CLOUD PRODUCTION ENVIRONMENT**

**Avid Interplay Sphere**

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.

[For more information, visit www.avid.com](http://www.avid.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.

[For more information, visit www.blackmagic-design.com](http://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.
Integrated Real-Time Solutions for Studios, Mobile Productions & Stadiums

**SIGNAL TRANSPORT & ROUTING**
- MEDICRNET: Fiber-based Real-Time Media Network
- ROCKNET: Performance Audio Network
- RILINK: 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
- ACRÖBAT: 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*

**ATSC ENCODER/MUX COMBO**

**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.  

*www.kramerusa.com*

**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*

**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*

**ppy 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 ELV audio formats; two XLR inputs and two line-out/headphone jacks.  

*www.mayah.com*

**VOICE RECORDING**

**ATSC ENCODER/MUX COMBO**

**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.  

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*www.marquisbroadcast.com*

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*www.kramerusa.com*

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*www.tiffen.com*

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*www.microwavevideosystems.com*
We put our heart and knowlege and present

The New **SDT ULTRA HE Series** (High Efficiency), reaches a system efficiency higher than $35\%_{\text{avg.}}$.

This is our way to **create the future**.

High efficiency reduces the cost of management and helps the environment.

> **SDT 12 JUM-W ULTRA HE**, with liquid cooling system, produces an output of 5 KW rms with a power consumption of 19KW.
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 scheduling environment.

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.

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.

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.

CONTENT MANAGEMENT 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 playbook templates; cost-effectively scales services across multiple linear and nonlinear channels.

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.

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.

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.

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).

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.
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.
WEB-BASED ROUTER CONTROL

PESA Catrax 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 secure a Zoom 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, subtitleing, 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

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

AUDIO ANALYZER

Prism Sound dScope Series III

Measurement system designed for analog and digital audio generation and analysis, including digtal 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

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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, PSI support includes MGT, TVCT and CVCT, while SI support includes NIT, SDT, CAT and TDT.

www.screen.sit

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

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TRANSFER MEDIA FROM FACILITY TO FACILITY

primestream.com or b4m.com
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 SierraView

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

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**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 file-sharing 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.

**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

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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/96kHz or 64 channels at 24-bit/96kHz.

www.solidstatelogic.com

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**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](http://www.pro.sony.com)

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**TRANSFORMER**

**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](http://www.telestream.com)

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**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 H1D, USB 2.0 at 480Mb/s, FireWire 800, serial and bidirectional audio; scalable from 16 to 48 ports.

[www.thinklogical.com](http://www.thinklogical.com)

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**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](http://www.tvlogicusa.com)

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**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](http://www.t-vips.com)

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[www.ese-web.com](http://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 1080i60 in an H.264 stream.

www.vsicam.com

AUDI O CONSO L E
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

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

AUDI O CONSO L E
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 source, A and B presets, bus-minus destination, channel mode and gain setting; features comprehensive IFB capability; includes 18 dedicated mix-minus buses with confidence feeds plus direct mix-minus (bus minus) feeds from every input channel; can be configured from 12 to 128 input faders.

www.wheatstone-tv.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

ENCODER CARD
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

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