Broadcast ENGINEERING®
THE JOURNAL OF DIGITAL TELEVISION™
Vol. 40 No. 6
An INTERTEC®/PRIMEDIA Publication

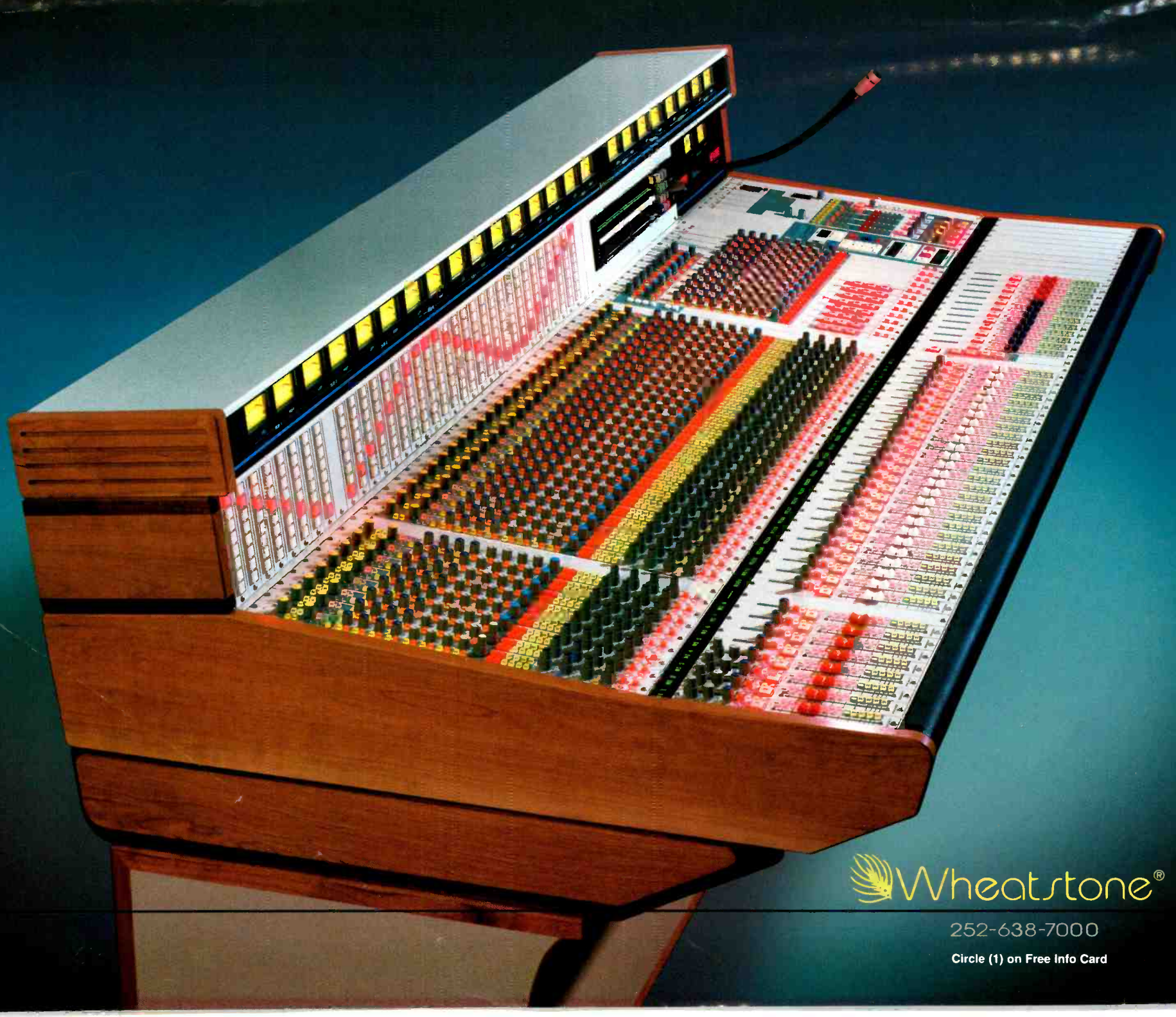
Product Source

LIVE TV

The Way It HAS to Be

TV-1000 and TV-80

Audio Consoles



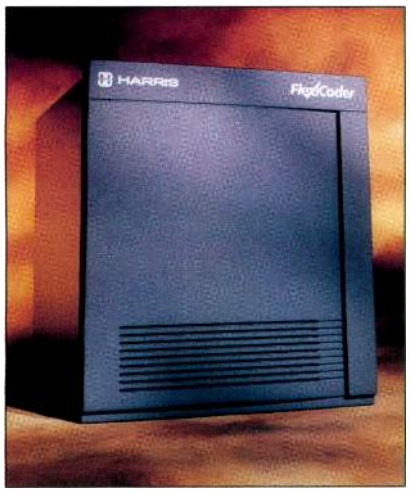
Wheatstone®

252-638-7000

Circle (1) on Free Info Card

Make a smooth and cost-effective transition to DTV with proven solutions from Harris

Let the Harris FlexiCoder™ ATSC MPEG-2 Encoding System support your digital growth path



Selected as a *Broadcast Engineering* Pick Hit at NAB 1998, "future-proof" FlexiCoder can solve your immediate needs for DTV encoding and simply lets you plug in additional capabilities when needed. You can start with a single-channel SDTV or HDTV system and upgrade to a redundant, multi-channel configuration simply by adding boards and software. FlexiCoder includes monitoring decoders, system or board-level redundancy, dual ATSC transport stream output, SMPTE 310M ATSC output interface, and external transport stream frequency reference.

For more information, please fax us at 217-222-0581.

Harris CD 1A – broadcasting's ***first*** second-generation ATSC 8-VSB exciter for DTV

The exciter is the most complex part of the transmitter, so you don't want to take a chance on unproved technology. The Harris CD 1A is the industry's first second-generation ATSC exciter. The heart of all Harris VHF and UHF DTV transmitters, it builds on field-proven Harris technology operating in more than 50 exciters worldwide. With CD 1A, Harris offers even more features to maximize performance and coverage. Learn why Harris DTV exciters were used by six of the seven United States experimental DTV stations and by HDTV receiver manufacturers from France to Japan. For more information, please fax us at 217-222-0581.

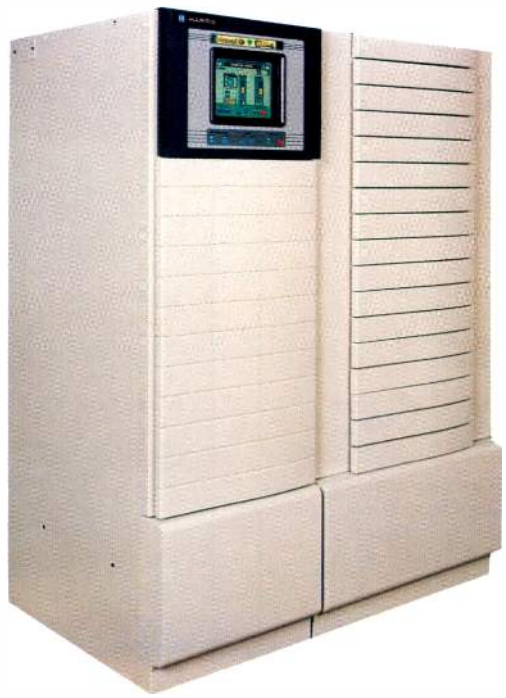
Harris offers new DTV white papers

Harris engineers have released new white papers focusing on topics relating to digital television. Papers include:

- **A Fresh New Look at 8VSB Peak to Average Ratios and Practical N+1, N-1 Combining Systems** by Robert J. Plonka, principal engineer.
- **HDTV Broadcast of Major League Baseball** by Gerald W. Collins, director of TV engineering.
- **A Harris WAVESTAR UHF Traveling Wave Array Antenna for Dual-Channel DTV/NTSC Operation** by Harris staff.

For a copy of any of these papers, please fax your request to 217-222-0581.

Maximize performance and coverage with the Harris DiamondCD™ UHF Solid State DTV Transmitter



The DiamondCD Series was developed especially for DTV. This modular system offers exceptional redundancy, while its CD 1A second-generation ATSC 8-VSB exciter provides superb, field-proven performance. Special features - including a power supply for every two "smart" power amplifier modules - ensure maximum coverage. Straightforward controls and graphical diagnostics simplify local and remote operation. Air cooling and configuration flexibility simplify installation, even in crowded transmitter buildings. See why DiamondCD could be your best choice for DTV. For more information, please fax us at 217-222-0581.

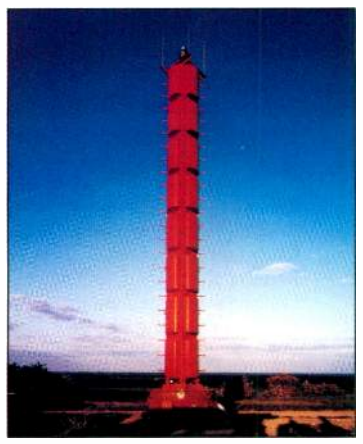
Harris/ITI DTV conversion studies provide complete RF blueprint for cost-effective DTV implementation

Harris has partnered with International Towers, Inc. (ITI) to offer customized DTV conversion studies. These studies consider every part of the broadcaster's RF air-chain to provide a comprehensive planning document outlining various DTV implementation options. The Harris/ITI studies include results, photos and recommendations from a complete physical tower inspection; a DTV RF proposal and budgetary information for antenna, transmission line, and transmitter; NTSC and DTV antenna/transmitter summaries and coverage estimates; a structural analysis and modifications of the existing tower (including proposed DTV equipment); tower location and registration section based on differential GPS measurements; tower-related budgetary prices, and a preliminary installation schedule. For more information, please fax us at 217-222-0581.

Harris combined-channel antennas can help alleviate tower problems

Harris offers a comprehensive range of wideband antennas capable of combined-channel operation, including:

- **UHF Dual-Channel Wavestar®**, a slotted, coaxial, center-fed antenna with a low-windload design. This antenna is ideal for stations with analog and lower-adjacent (N-1) DTV channel assignments. Providing exceptional aperture efficiency, this side-mount antenna can replace an existing single-channel antenna without adding significant windloads to an existing tower.
- **UHF Deltawing,** a line of wideband panel antennas that can accommodate up to five separate channels, whether they are adjacent or widely spaced. These antennas are available for low-power to high-power (240 kW average power) applications. While a semiflexible transmission line is standard, a rigid feed system is available and offers maximum reliability for high-power applications. Deltawing antennas offer enormous pattern flexibility, and are well suited for stacked arrangements.



- **VHF Deltawing,** wideband panel antennas that are available for low-band and high-band applications. These antennas, which also lend themselves to combined operation, can mount on existing towers and are ideal for stacked arrangements. Among other benefits, they are simpler – and therefore more reliable – than dipole antennas.
- **VHF Batwing,** turnstile antennas that are capable of adjacent-channel (N+1 and N-1) and multi-channel operation. These antennas are ideal for top mount, side mount and stacked arrangements.

For more information, please fax us at 217-222-0581.

Harris adds DTV courses to Training Center line-up

Harris has added two five-day courses to support broadcasters in the conversion to DTV to the curriculum roster at its Broadcast Technology Training Center in Quincy, IL:

- **Intro to HDTV** provides a roadmap to DTV planning for engineers and first-line managers. This course is designed to provide a comfortable understanding of the entire DTV system. Focuses include DTV technologies (MPEG-2, 8-VSB, AC-3 Dolby® audio), peak to average power, NTSC and ATSC combining including N+1 and N-1, coverage issues, and possible bottlenecks and constraints.
- **TV Systems and Installation** aims to prepare engineers and support staff to design and install the second transmission air-chain required during the DTV conversion.

For additional information, please phone the Harris Broadcast Technology Training Center at 217-221-7589 from 8 a.m. to 5 p.m. CDT weekdays or check our website: www.broadcast.harris.com.

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A new world of broadcast solutions

Broadcast ENGINEERING
THE JOURNAL OF DIGITAL TELEVISION

Vol. 40 No. 6
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Product Source

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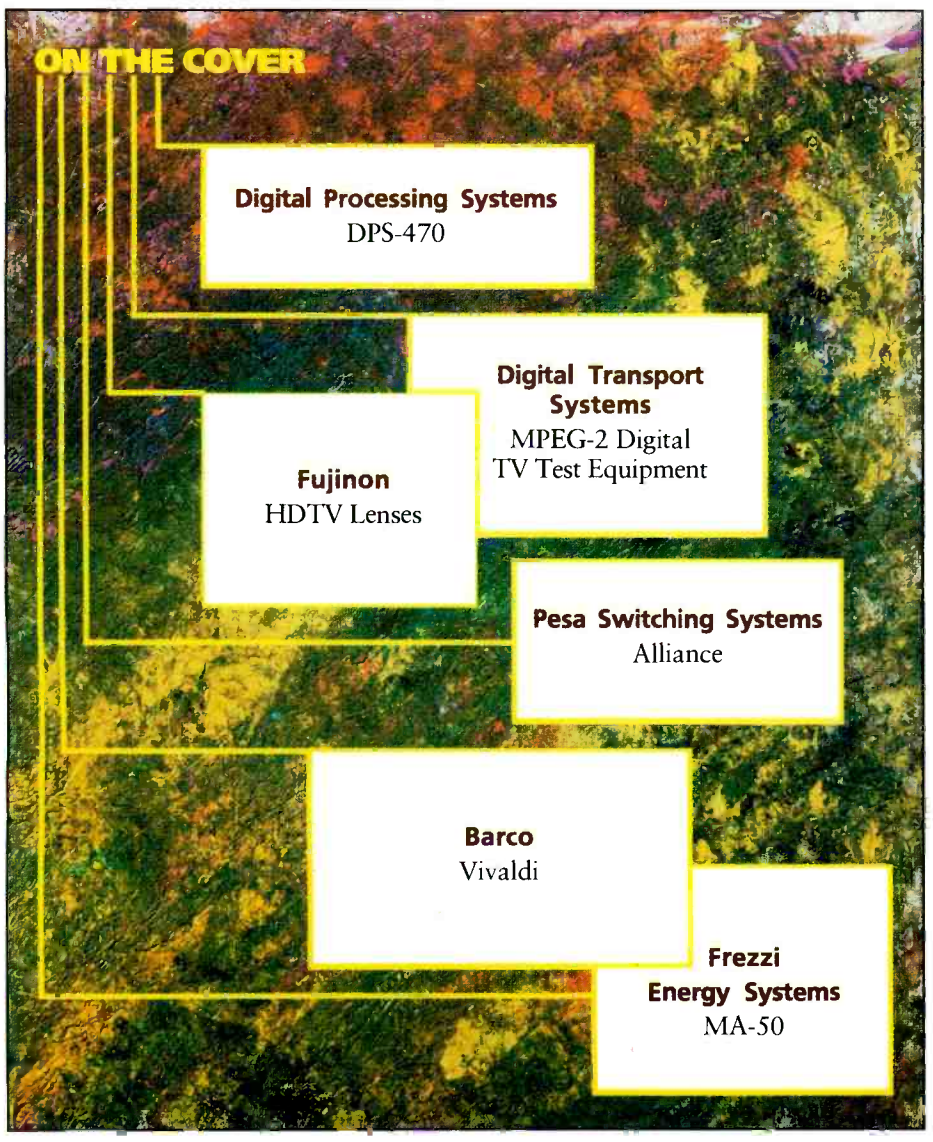
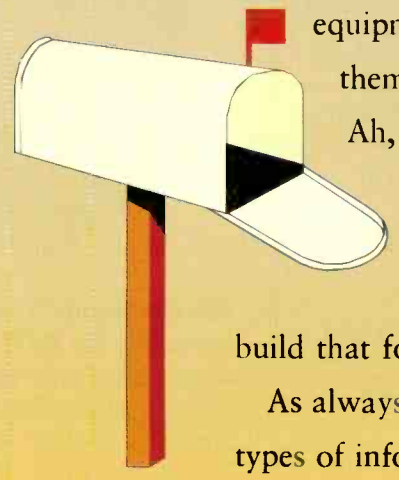


From the editor...

Welcome to *Broadcast Engineering*'s annual Product Source. Our goal is to provide you with the latest new product information in broadcast and production technology.

This month, we focus on some of the hot new DTV products released at NAB. While the convention looked to be the unofficial "launch" of digital television, it was the selection of differing video formats by the networks that received most of the attention.

This significant divergence of opinion in the march to DTV now forces technical managers to select equipment carefully, lest they find themselves format challenged.



Ah, but rest easy, my friend, because you now hold in your hands help in finding the answers you need to build that format-friendly facility.

As always, let me know what other types of information you'd like included in further issues of *Broadcast Engineering*.

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Brad Dick

Brad Dick, editor

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Fujinon's 19X.
The *New* Pro Standard!

A19 X 8.7ERM

Winner of the Emmy in
Lens Technology

Designed specifically for today's pro video digital cameras.

As the industry leader in optical technology, Fujinon continues to set new standards with the new 19X lens. It's the widest angle, highest magnification lens ever developed for today's pro video digital cameras.

Although priced for the professional market, the new 19X offers broadcast-quality features you won't find on any lens in its price class.

Innerfocus This proprietary Fujinon feature eliminates the need to reset polarizers and other adjustable filters each time you refocus. It makes filter settings and focusing independent...so you can focus freely, without influencing your creative effect.

QuickZoom This Fujinon exclusive lets you return precisely to your original framed shot after you've zoomed in to focus...all at the push of a button.

AT A Fujinon broadcast-industry first, Aspheric Technology increases optical performance while reducing size and weight.

Vformat Another Fujinon breakthrough, this optional ratio converter maintains proper field of view on switchable 4:3/16:9 format cameras.

For your FREE Windows™ version of Fujinon's Select-A-Lens software, call 1-800-553-6611.

Circle (6) on Free Info Card

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Phone: 048-668-2152, FAX: 048-651-8517, TELEX: J22685

FOCUSED ON THE FUTURE

FUJINON

Digital Noise Reducers

Philips PreCast VsdB Series: the PreCast multichannel noise reduction system greatly improves MPEG compression efficiency; the multichannel noise reduction for digital broadcast applications features a 20% to 30% gain in MPEG encoding efficiency; other features include patented motion adaptive, spatial and temporal filtering, as well as FM sparkle, dirt and scratch concealment; 801-977-1611; fax 801-972-0837; info@mail.phbtsus.com; www.philipsbts.com

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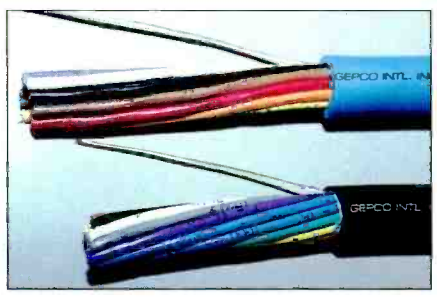
Mini Tools for Video Applications

Kramer Tools: a line of miniature devices for almost every professional or consumer needs including DA for video and audio, Y/C line amplifiers, mechanical switchers for composite and Y/C, VGA distribution amplifier and a switcher, a transmitter and a receiver for twisted-pair A/V and a range of port extenders; some tools have bandwidth of 280MHz and up and can handle SDI signals with no distortion; 908-735-0018 or 888-275-6311; fax 908-735-0515; www.kramerelectronics.com

Circle 107 on Free Info Card

Audio Cable



Gepco International: reintroduces its GEP-FLEX audio cable – now with color-coded pair jackets to the base-10 resistor color code; cable consists of flexible outer jacket compound surrounding the 618 (22 gauge), 724 (24 gauge) and 803 (26 gauge) series multipair audio cable; used for remote applications and permanent installation in recording studios, radio stations and other facilities; audio cable jackets are identified with alphanumeric surface print, inverted every inch; 312-733-9555; fax 312-733-6416; www.gepco.com

Circle 108 on Free Info Card

High-Power Traveling Wave UHF Slot Antenna

Jampro JTW traveling wave antenna: this antenna is available in various patterns and polarizations for effective broadcast coverage to achieve maximum market penetration; highly null-filled vertical patterns, high-power handling, high gains and single feed point assure optimum pattern performance and low VSWR; now available for DTV applications; 916-383-1177; fax 916-383-1182

Circle 109 on Free Info Card

Digital Production Switchers

Ross Video Synergy series: a family of digital production switchers designed for live news, live sports and live production; over-the-shoulder boxes, picture freezes, repositioning of keys, pushes and more are available with the innovative "squeeze & tease" feature; other features include preview overlay, 12 aux buses, up to 64 inputs, VTR control, external DVE integration and redundant power; 613-652-4886; fax 613-652-4425; www.rossvideo.com; solutions@rossvideo.com

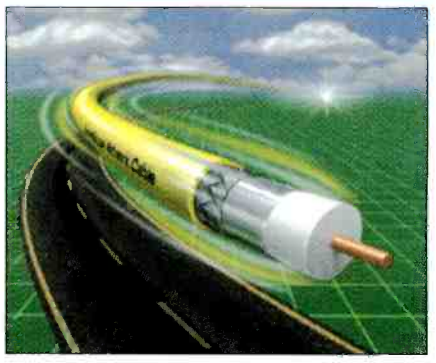
Circle 110 on Free Info Card

Absorptive Filters

Micro Communications Inc. (MCI) UHF dual-mode absorptive filters: these filters can be used on the output of high-power common amplification DTV transmitters to provide a constant impedance VSWR as seen by the transmitter; they also attenuate and absorb out-of-band splatter generated by the transmitter that could affect NTSC reception on an adjacent channel; 603-624-4351; fax 603-624-4822; www.mcibroadcast.com

Circle 111 on Free Info Card

HDTV Transmission Over Coax



CommScope 7538: with a 0.159-inch diameter, this miniature, low-loss digital coax cable provides outstanding performance in digital applications including HDTV; the small size allows improved wiring management in high-density areas; for longer runs, CommScope has the 5765 low-loss serial digital cable; 704-459-5000; www.commscope.com

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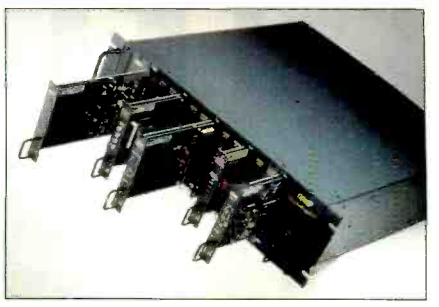
Signal Processing Products



Nova Systems/Videonics new modules for StudioFrame: the modular and flexible StudioFrame system accommodates today's, as well as tomorrow's, video and audio interfacing requirements; the DTV-ready and scaleable nature of its 10-bit architecture, along with wide, comprehensive product range, allows it to be easily reconfigured and/or upgraded as video standards and requirements continue to evolve; 860-693-0238; fax 860-693-1497

Circle 113 on Free Info Card

On the cover

Synchronizer

Digital Processing Systems DPS-470: this component digital video synchronizer provides component, composite, S-Video and SDI video inputs and outputs; features include 10-bit 4:2:2 processing, real-time transcoding, a VITS inserter, auto-switch TBC and integrated digital test pattern generator; all audio outputs are active simultaneously, enabling analog and digital devides to be connected at the same time; 606-371-5533; fax 606-371-3729; info@dps.com; www.dps.com

Circle 100 on Free Info Card

ATSC-Compliant Test Equipment

Digital Transport Systems: has developed MPEG-2 digital TV test equipment to ATSC (Advanced Television Systems Committee) standards; the adoption of the ATSC standard underscores the company's commitment to be the first U.S. company with a complete test solution for ATSC transport streams; 619-675-1410 x101; fax 619-675-1412; www.dtsys.com

Circle 101 on Free Info Card

HDTV Lenses

Fujinon HDTV lenses: this series includes several portable lenses such as the HA10X5.2BEVM, the HA14X8EVM and the HA20X7.5BEVM; other lenses in the series include the HA24X7BESM studio lens and the HA66X9.5ESM field lens; all the lenses in this series of high-definition lenses have features to satisfy the excellent picture quality of HDTV; 800-553-6621; 201-633-5600; fax 201-533-5216

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Master Control Switcher

Pesa Switching Systems Alliance: a master control switcher, based on NEC's multiformat technology; single platform switcher designed for both full-time and mixed SDTV and HDTV broadcasting; basic dual format configuration allows for two SDTV channels (480i or 480p) or one HDTV channel (1080I or 720p); 516-845-5020; fax 516-845-5023; salesinfo@pesa.com; www.pesa.com

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Display System

Barco Vivaldi: connected to the Rosa management concept, Vivaldi features remote configuration and re-configuration of an entire monitor wall, uninterrupted monitoring of signal presence, customized automation tasks to interact with existing video routing systems, video source monitoring of digital uplink centers, and upgrades without hardware modification to monitor walls; 770-218-3200; fax 770-218-3250; www.barco.com

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Mini-arc Lighting

Frezzi Energy Systems MA-50: this full-spectrum Sun Gun is a compact, 50W daylight corrected HMI; can be used on camera, stand-mounted or hand-held; weighs just 1.25 pounds and consumes 65W power; input voltage is 12-15VDC; bulb life is 4,000 hours; comes with optional indoor filter and barn doors; operates from any 12V, 13V or 14V battery; 973-427-1160; fax 973-427-0934; frezzi@frezzi.com; www.frezzi.com

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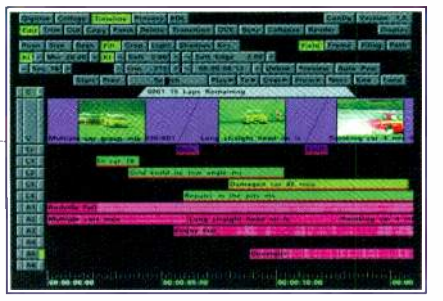
Collage

The little grey box that ~~could~~ Does!

Combining character generation, paint, still store and animation,
Collage offers a wider range of graphics tools than any other on-air graphics device.

Still Store

"4:4:4:4 image quality, fast image capture and recall, TCP/IP based networking, and a diverse range of transition effects."



Editing

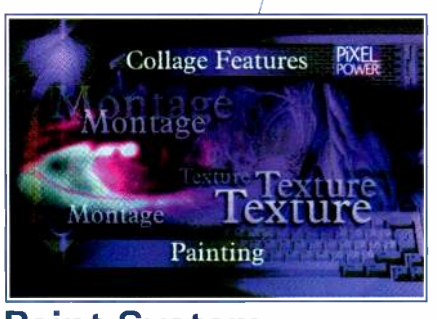
"Affordable timeline based non-linear editing with uncompressed video clips, features 4 layers of DVE, 8 layers of 24 bit audio and all the graphics tools that made Collage famous."

Character Generator

"A user friendly C.G. that renders postscript and true type fonts with multiple surface, edge and shadow styles. Collage features numerous real-time text animations and works with newsroom computer systems."

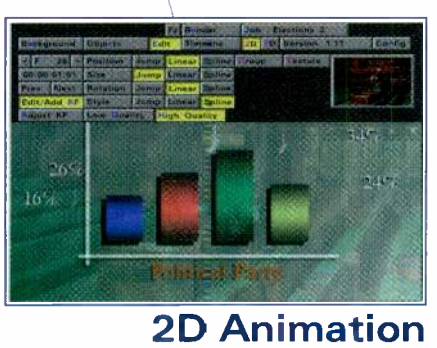
3D Animation

"Quickly create three dimensional graphics with true 3D bevels, extrudes, multiple light types, texture and bump mapping."



Paint System

"Full featured painting tools including variable size and contoured brushes, custom brushes, texture and opacity mapping, and VTR control for frame capture or rotoscoping."



2D Animation

"Flexible keyframe animation of object attributes makes Collage 2D a powerful tool for creating complex layered graphic treatments."

With over 550 systems in use worldwide the Collage family offers proven performance at surprisingly affordable prices. There is a Collage solution to almost every broadcast or post-production problem.

To see Collage for yourself contact Majortech at 1-800-461-7814

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Digital Transmission

Telecast Fiber Systems Digital Viper: the Viper fiber-optic system now provides digital transmission for outside broadcasting applications; it simultaneously carries analog, video, serial digital video, audio, intercom and control data over a single, lightweight fiber-optic cable; the system uses plug-in modules to mix and match multiple analog (NTSC or PAL) video signals with ITU-R 601 serial digital video streams; 508-754-4858; fax 508-752-1520; www.telecast-fiber.com; fiberac@telecast.fiber.com

Circle 114 on Free Info Card

High-Definition Camera

Sony HDC-750: a portable companion to the HDC-700, the HDC-750 is a full-featured studio/OB camera that uses Sony's 2,000,000-pixel Hyper HAD frame-interline transfer (FIT) CCD imagers; it is also designed to bridge the transition from 525-line NTSC to an all-digital HDTV/SDTV combination; the HDC-750 uses the same standard $^{2}/_{3}$-inch lens interface as the present 525-line SDTV camera family (BVP700/750/500/550 series), allowing convenient lens interchange as part of a cost-effective migration path; 800-686-SONY; fax 201-358-4058; www.sony.com

Circle 115 on Free Info Card

Widescreen Digital Camera

JVC KY-D29W: this digital camera is switchable from its native 16:9 aspect ratio to traditional 4:3, offering the ultimate flexibility in image capture to broadcasters and high-end producers; the KY-D29W achieves widescreen capacity via three 460,000-pixel 16:9 CCDs and boasts a microlens over each pixel for maximum sensitivity and negligible vertical smear; the camera can dock to any format, uses 14-bit digital signal processing and 3-dimensional digital noise reduction (3D DNR); it features an S/N ratio of 65dB, 850 lines of horizontal resolution; 800-JVC-5825 or 201-794-3900; fax 201-523-2077; www.jvcpro.com

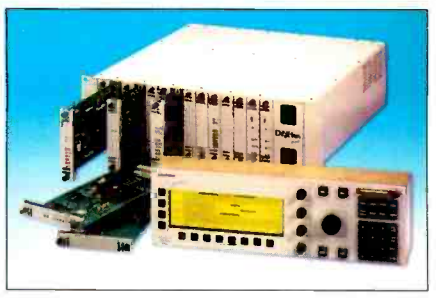
Circle 120 on Free Info Card

TV Audio Console

Wheatstone TV-80: designed for larger markets and network applications, all switching in the TV-80 is electronic, ensuring high reliability and error-proof operation; available in a range of frame sizes and incorporates computer recall of pre-selected audio sources, alphanumeric source displays, house router interface, operator-intuitive eight mix-minus system and master confidence IFB panel; includes eight monaural submaster and two stereo master outputs, eight aux sends, four mute groups and direct outputs from every input; 252-638-7000; fax 252-637-1285; email@wheatstone.com

Circle 121 on Free Info Card

HDTV Equipment



Leitch HDTV Glue family: HDTV Glue family includes several products based on Leitch's DigiBus platform — the HD frame synchronizer for reclocking, serial in and out, gen-lock (locks to NTSC blackburst) and no jitter — the HD test generator features built-in line-based, frame-based and static test signals — the HD logo generator with serial or component output, external logo creation and data interface — the HD serial DA featuring three outputs, serial 1.5Gb/s input and 1.5Gb/s output, as well as reclocking and no jitter — HD conversion products for component analog to 1.5Gb/s HDTV and vice versa; other products in the HDTV Glue family include the HD upconverter, the HD video router and the HD master control switcher; 800-231-9673; fax 757-548-4088; www.leitch.com

Circle 124 on Free Info Card

AES/EBU Digital Audio Adapters

Neutrik NADITBNC-F and NADITBNC-M: AES/EBU digital audio adapters with digital audio impedance transformers; these digital audio adapters allow for longer cable runs via unbalanced coaxial lines rather than twisted pair cables that present high attenuation values at the relevant frequencies; the criteria for these adapters include impedance matching between 100V and 75V, transition of balanced/unbalanced circuit (balun), electrical isolation (optional), attenuation for use of analog video distribution equipment (optional) and reduction of hum and noise; 732-901-9488; fax 732-901-9608

Circle 116 on Free Info Card

High-Definition Video Switcher

Panasonic AV-HS1200: a 10-input, compact production switcher suitable for edit and post-production facilities requiring a 1,125-line interface scan high-definition production capability with built-in digital video effects; it provides excellent picture quality, 10-bit digital video with 14-bit processing and digital filtering for high-quality keying; the unit's two mix-effects generators, with large fluorescent display for each M/E make operation simple; M/E functions include MIX, NAM, WIPE, KEY and DVE; the M/E can mix three video sources; 201-392-6176; fax 201-392-6558; www.panasonic.com/pbds

Circle 117 on Free Info Card

Video Multiplexer

Comsat Laboratories DVM2001: performs multiplexing and remultiplexing of up to 14 MPEG-2 compliant transport streams, which might be produced locally by encoders or originated remotely; full DVB/MPEG-2 compliant transport multiplex is output over G/703, ECL and Hotlink interfaces for use over terrestrial networks and with the satellite modems; 301-428-4010; fax 301-428-4600; www.comsat.com\corp\lab\

Circle 122 on Free Info Card

Expanded DTV Features for ProntoVision

Digital Video Systems ProntoVision: new enhancements (some are special-order options) provide for concurrent storage of virtually all interlaced and progressive HDTV and SDTV formats in a single system; if has the ability to switch from HDTV to a multichannel SDTV server, record/play of the Panasonic HD360 compressed stream format and a frame doubler playout option that allows any material recorded in progressive 30 format to be played out in progressive 60 or interlaced 60 formats; 818-846-9444; fax 818-846-7444; info@digitalvideosystems.com; www.digitalvideosystems.com

Circle 125 on Free Info Card

8-VSB Modulator

KTech 8-VSB modulator: this product is designed for HDTV terrestrial broadcast systems and conforms to ATSC specifications and features all solid-state construction for high reliablity; it also has IF or RF output options and accepts MPEG-2 source input; another feature is the clock lock indicator and the phase locks clock to the MPEG-2 source; 818-361-2248; fax 818-270-2010; www.ktechtelecom.com; skuh@ktechtelecom.com

Circle 118 on Free Info Card

Battery System

Anton Bauer ProFormer: an addition to the Logic Series InterActive battery system, the ProFormer Gold Mount battery is designed to replace obsolete OEM slide-in style batteries with more than double the performance; profile is only 1.5 inches (3.8 cm) and weight is 30 oz. (850 g); 203-929-1100; fax 203-929-9935; www.antonbauer.com

Circle 119 on Free Info Card

ATSC Audio Monitor

Wohler Technologies AMP2: ATSC digital audio monitor allows selection between and monitoring of up to six channels of ATSC digital or analog audio in only 2RU; user can listen to any one or two channels simultaneously and visually monitor front, rear, center and efx channels; 888-5-WOHLER; www.wohler.com.

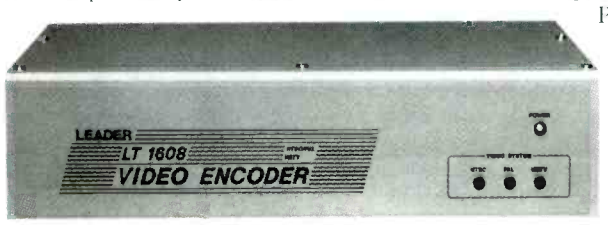
Circle 123 on Free Info Card

Leader Instruments Supports HDTV

Broadcast networks, production houses and suppliers now actively engaged in HDTV applications are currently using Leader Instruments award winning products for both signal sources (Model LT 440D) and monitoring (Model LV 5150D). Among these are ABC, CBS, Crawford Communications Film Group, DaVinci, Lighthouse Digital, Pesa, Utah Scientific...

Models LT 1611 and LT 1608 Combination of Programmable RGB Generator and NTSC/PAL/HDTV Encoder

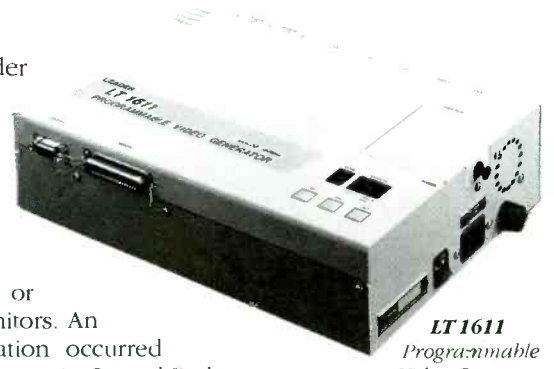
A unique combination of Models LT 1611 and LT 1608 expand the far-ranging attributes of a fully programmable RGB generator, the LT 1611, with an NTSC/PAL/HDTV encoder, the LT 1608. The encoder accepts RGB, sync and clock signals from the RGB generator and outputs fully encoded NTSC, PAL or HDTV component three-wire. Both NTSC and PAL outputs are full composite with encoded color subcarrier.



LT 1608 Video Encoder

The HDTV feeds are in YPbPr form and include standard tri-level sync.

The combination of RGB generator and encoder puts the programming features of the RGB generator, in terms of raster architecture (within specified limits) and both stock and user-designed test patterns, into the form required by NTSC, Pal or HDTV component systems and monitors. An example of a very useful application occurred during setup of the Garth Brooks concert in Central Park, NY. Here the combo was pressed into service to provide crosshatch patterns in the HDTV format to drive the projection monitors during setup. Model LT 1611 provides analog RGB feeds with a maximum dot clock frequency of 150 MHz. It operates as a stand-alone generator using a supplied ROM, but is fully controlled and programmed from a PC connection in the Windows® format using supplied software. PC control sets up raster/timing parameters, stock and custom-design test patterns and output signal conditions. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1-800-645-5104 or 516-231-6900.



LT 1611 Programmable Video Generator

Circle 49 on Free Info Card

LT 425D - NTSC Video Pattern Generator

A precision test source for digital-component facilities, the LT 425D offers one parallel and four serial outputs (one digital black.) AES/EBU digital audio may be embedded in the serial data stream, but is also available as a separate output. Test signals are tailored to digital operations and include the SDI checkfield and a programmable moving marker and switched stills for compression tests. A programmable 20-character source ID, calendar and clock rounds out the full list of operating options. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1-800-645-5104 or 516 231-6900.

Circle 50 on Free Info Card

LV 5100D - Digital/Analog Component Waveform Monitor

Able to work in component digital as well as component analog facilities (and mixed operations), the LV 5100D provides comprehensive waveform, vector, timing and picture monitoring capabilities. Menu-driven control functions extend familiar waveform observations into highly specialized areas and include local calibration control, the ability to show or blank SAV/EAV signals in both the waveform and picture to monitor digital signals in GBR or YCbCr form, line select (with an adjustable widow), memory storage of test setups with capabilities such as on-screen labels, flexible cursor measurements, automatic 525/60 and 625/50 operation and much more. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1-800-645-5104 or 516 231-6900.

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LV 5150D

HDTV Digital & Analog Waveform Monitor - LV 5150D

- 2 Serial Digital Inputs (SMPTE 292M)
- 1 3-Wire Analog Input (SMPTE 240M)
- 1080/1035 Operation
- Full EDH Error Reporting with Alarms
- Waveform, Vector, Picture and Stereo Monitoring
- Overlay, Parade and Timing (Bowtie) Waveforms
- Active Serial Input Decoded to Analog Pix Monitor Output
- Active Serial Switched (A or B) Output

HDTV Serial Digital Signal Generator - LT 440D

LT 440D

- 1125/59.94 HDTV Operation (60Hz option can be added)
- 1080 or 1035 Active Lines; Front Panel Switchable
- Digital Genlock to 1125 Tri-Level Sync or 525 NTSC Black Burst; Adjustable Delay
- Embedded as well as Separate AES/EBU Audio
- Tri-Level Sync Output and H&V Drives
- Source Identification

Analog HD Multi-Scan Generators - LT 1611, LT1608

- Generate Component Analog HD Signals with Tri-Level Sync
- Provide all broadcast and post-production analog HD Formats: 1080, 1035, 720 and 525, interlaced and progressive with both 59.94 and 60Hz formats
- Produce Patterns for 4:3 and 16:9 aspect ratios

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- Real Time Compression Artifact Evaluation
- Digital Instruments for Mixed Digital/Analog Facilities
- GBR Multi-Scan Generators

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ABR202 Digital Audio Broadcast Receiver

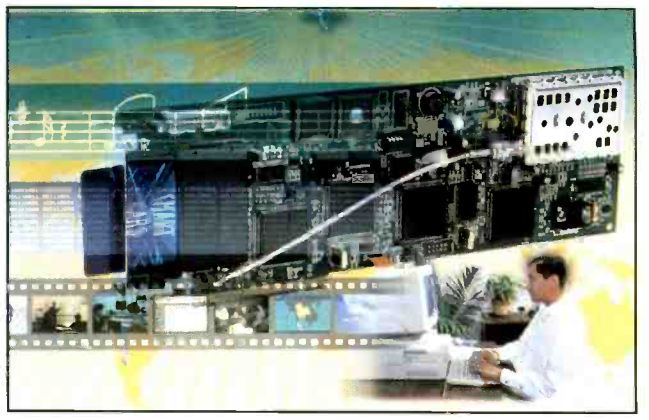
Using the new ABR202 audio broadcast receiver you can transmit a full 20 kHz stereo CD-quality audio signal in as little as 96 kbps. ISO/MPEG compression helps maximize space segment efficiency, and multiple operating rates and modes let you optimize your network for increased audio and data quality and space segment savings.

The ABR202 is contained in a lightweight chassis with low power consumption, and can operate in either Ku- or C-band networks. It is functionally compatible with the ABR200. Applications include radio program distribution, point-of-purchase audio with advertising insertion, and data broadcasting.

For additional product information, please contact ComStream's Satellite Products Division, telephone: 619.657.5849; fax: 619.657.5415.

MediaCast™ PC/Server Receiver Card

ComStream's DVB-compliant MediaCast™ Satellite PC/Receiver card delivers MPEG-2 video, CD-quality audio programs, and high-speed data information such as online news, software downloads and financial information to PCs and LAN servers at transmission rates of up to 45 Mbps. Up to 32 services can be delivered simultaneously from one data stream, and conditional access is supported. The MediaCast card is designed to operate in a 120 MHz Pentium-class, multimedia-ready PC with 16 MB of RAM or more. Applications include distance learning for corporate and educational institutions, Intranet broadcasting, and applications requiring reliable file transfer.



For additional product information, please contact ComStream's Broadband Products Division, telephone: 619.657.5248; fax: 619.657.5897.

Circle 11 on Free Info Card

CM601 Digital Satellite Modem

ComStream's compact CM601 digital satellite modem, is a low-power consumption modem for two-way telephony, data, and broadcast applications. The new CM601 modem is interoperable with the CM701 and ComStream's DT7000/8000 earth stations. Its modular architecture allows for easy field upgrades of its stand-alone modules.

Packaged in a smaller low-profile 1RU (single rack unit) chassis, the CM601 features ComStream's innovative new virtual control panel, Quik-Link™. Quik-Link is a Windows® 95- or NT- based graphical user interface that allows users to easily configure the modem. Quik-Link is also compatible with the CM701 modem.

For additional product information, contact ComStream's Satellite Products Division, telephone: 619.657.5849; fax: 619.657.5415.

DT8000 Earth Station

ComStream's new, low cost DT8000 integrated SCPC earth station is ideal for point-to-point or point-to-multipoint satellite communications. A highly integrated indoor/outdoor unit, the DT8000 combines the features of the CM701 modem with RF technology (i.e. antenna and up/down converter) to yield a family of fully interactive, dedicated channel VSATs. The DT8000 can be used with either Ku- or C-band transceivers. Programmable power levels and operating parameters can compensate for low signal levels near the fringe of a satellite beam, varying or extreme weather conditions, or other location variables.

For additional product information, contact ComStream's Satellite Products Division, telephone: 619.657.5849; fax: 619.657.5415.

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The perfect replacement for generations of reel-to-reel tape recorders. Short/cut delivers hard-disk storage, plus fast cut and paste waveform editing. Add an optional Zip™drive and get low-cost copies. This editor is fast enough for on-air use, and tough enough for the road. So take Short/cut out for a test drive and watch it perform.

Short/cut is your next tape recorder, edit block and digital delivery system. It's Un-Reel.

Test drive theirs then test drive our DigiCart/II Plus. We've got more under the hood.

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The new DigiCart/II Plus puts up to 50 hours of audio on hard disk, and now includes the popular Zip™drive for low-cost storage. As always, it's your choice of linear or Dolby® AC-2 recording, plus precise editing and powerful playlisting capabilities. The new "Plus" model delivers all the reliability that has made DigiCart a broadcast standard, and it's now available at a great new price. Ask for a test drive, and put it through the paces at your station.

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Instant Replay. Instant sound effects. Instant music. Instant fun. Take it out for a joy ride.

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Circle (12) on Free Info Card

DTV-Ready MPEG-2 Digital Video Compression System

Scientific-Atlanta PowerVu with DTV capabilities: the PowerVu MPEG-2 digital video compression system has been expanded with the addition of the PowerVu HD encoder and decoder; the new PowerVu products will allow the system to deliver multiple SDTV or HDTV in an ATSC format to provide a variety of application solutions from MPEG 4:2:2 or 4:2:0 profiles; 404-903-5000; fax 404-903-4617; www.sciatl.com.

Circle 126 on Free Info Card

High-Definition Camera

Sony HDC-700: a full-featured studio/OB camera that uses Sony's 2,000,000-pixel Hyper HAD frame interline transfer (FIT) CCD imagers; it is designed to bridge the transition from 525-line NTSC to an all-digital HDTV/SDTV combination; the HDC-700 uses the same standard $^2/_3$-inch lens interface as the present 525-line SDTV camera family (BVP700/750/500/550 series), allowing convenient lens interchange as part of a cost-effective migration path; 800-686-SONY; fax 201-358-4058; www.sony.com

Circle 127 on Free Info Card

Digital Video Jacks

Canare DVJ series: this series of digital video jacks is designed to handle the patching requirements of DTV/HDTV facilities; they offer 1.4GHz bandwidth performance with extremely low VSWR; incorporating unique sealed microswitch contacts to lock out dirt, dust and humidity, the jacks are available in normal-through and straight-through models; the DVJs are true 75Ω; 818-365-2446; fax 818-365-0479; www.canare.com

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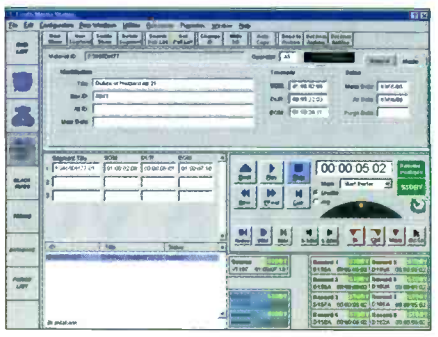
Server Software



Louth Automation MP5: using devices connected to any ADC-100 device server, the MP5 provides frame-accurate device control, device storage views, and database interaction in a 32-bit Windows application; flexibility is increased as device resources may be shared with on-air playlists; eliminates manual audio/video routing; LCP-24 control panel has 20 programmable backlit buttons and 2-position rotary jog/shuttle knob control; operates with video file servers, cart machines and external VTRs as either source or destinations; 650-843-3665; fax 650-843-3666

Circle 129 on Free Info Card

High-Definition Studio Camera

Panasonic AK-HC850: featuring three $^2/_3$-inch 2,000,000-pixel M-FIT CCD imagers, this high-definition studio camera delivers the full high-definition bandwidth of 1,000 TV lines of resolution; it uses serial digital fiber-optic cable link to transfer RGB 4:4:4 data at 2.2Gb/s from the camera head to the CCU and the unit also has parallel 1,125-line HD and 525 interlace outputs; 201-392-6176; fax 201-392-6558; www.panasonic.com/pbds

Circle 130 on Free Info Card

Video Image Storage System

Pinnacle Systems Lightning 1000 Family: this top-of-the-line image management product offers one-, two- or three-channel operation; standard storage capacity is 6,500 stills, with internal expansion capability beyond 10,000 stills; 650-526-1600; fax 650-526-1601; pr@pinnaclesys.com; www.pinnaclesys.com

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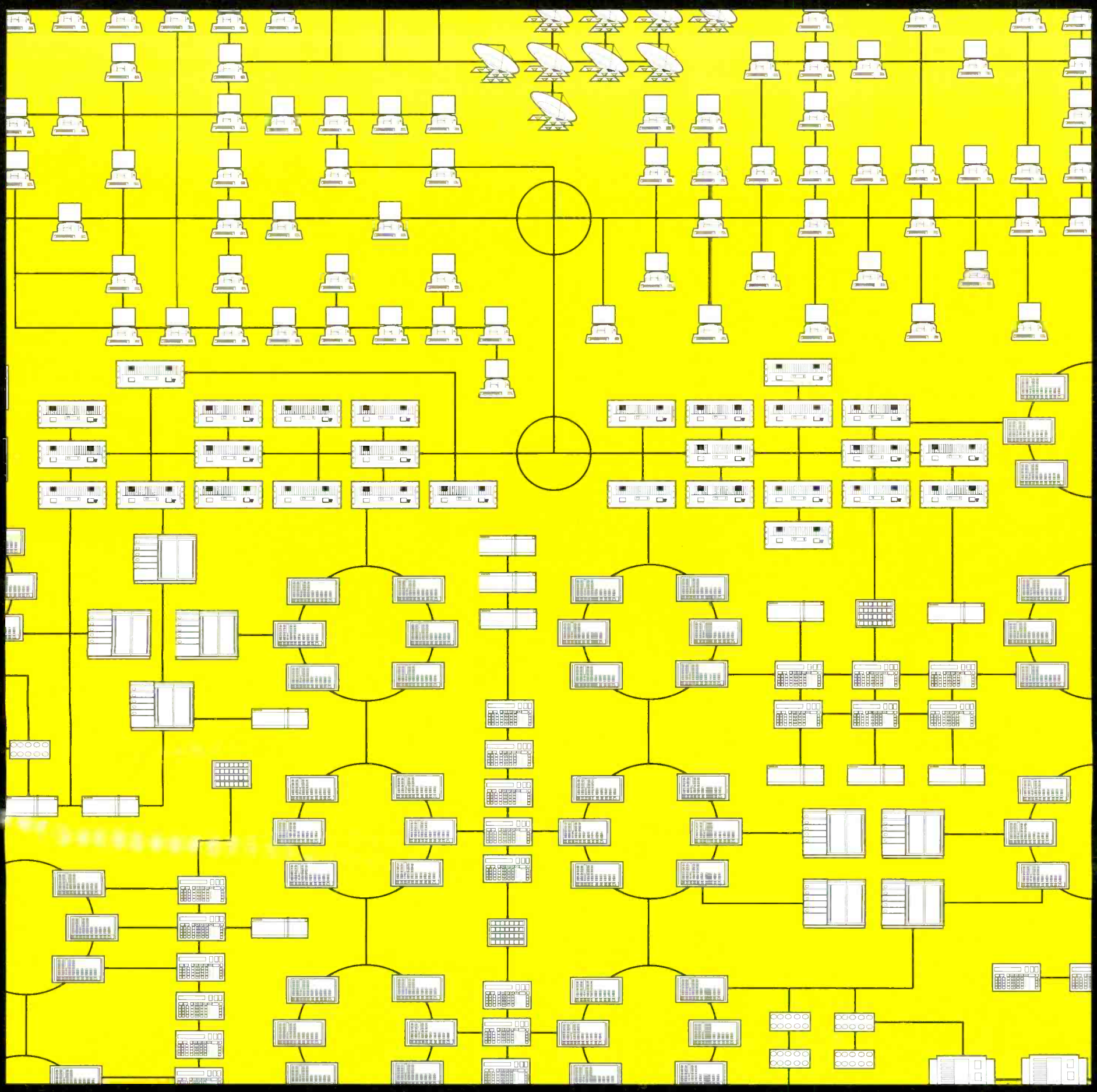

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Circle (17) on Free Info Card

Digital Video Generator PT 5230

- Comprehensive SDI Digital Video Generator.
- Broad range of test signals for check and alignment.
- Up to 4 SDI generators in one 19" rack unit.
- Multi format 525/625 SDI, NTSC and PAL.
- Composite PAL/NTSC.

Circle 70 on Free Info Card

PT 5211 VariTime™ Changeover

- Very high reliability MTBF 80.000 hrs.
- Indicates status of both primary and back-up generator.
- Switches: analog video serial digital video and digital Audio (balanced and unbalanced).

Circle 71 on Free Info Card

PT 5210 VariTime™ Digital Sync Generator

- Up to 8 black burst outputs.
- VariTime, 8 (PAL) and 4 (NTSC) fields.
- Multistandard: 525/60, 625/50, NTSC and PAL.
- Output: SDI Black, SDI Test signal, Analog Black burst, Analog Test signal AES/EBU digital audio.

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E-mail: ptvna@compuserve.com, Website: http://www.ptv.dk

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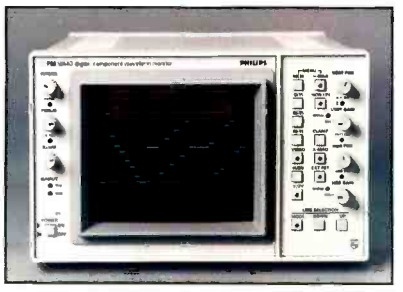


PM 5664D Digital Waveform Monitor

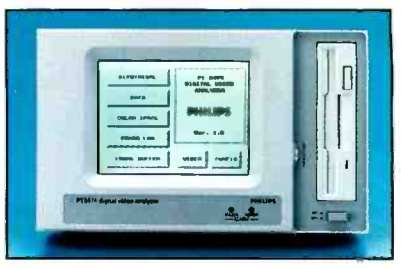
- Serial Digital input..
- Analog Composite input.
- YP_BP_R, GBR, Parade, Overlay, Star, and Vector display.
- Easy to operate with on screen menus.

Circle 73 on Free Info Card

PM 5639 Handheld CRT Color Analyzer

- Unique graphic CIE chromaticity display.
- Numerical read-out of xy or 'u'v, luminance Y and correlated color temperature User-friendly RGB bar graph display.
- Hand-held, battery operated.
- Traceable to international color standards.
- Automatic adaption to any field rate – also HDTV.

Circle 74 on Free Info Card



PT 5474 Digital Video Analyzer

- Multi- format analyzer for serial digital video, 525/625 lines.
- Extensive error logging on printer or 3.5" diskdrive.
- Real time measurement of key parameters, e.g: serial jitter, color level, EDH errors, TRS, RC and parity errors, and amplitude of the SDI signals.
- Alarm setting for all parameters and indication both locally and remotely.
- Optional Frame Buffer.

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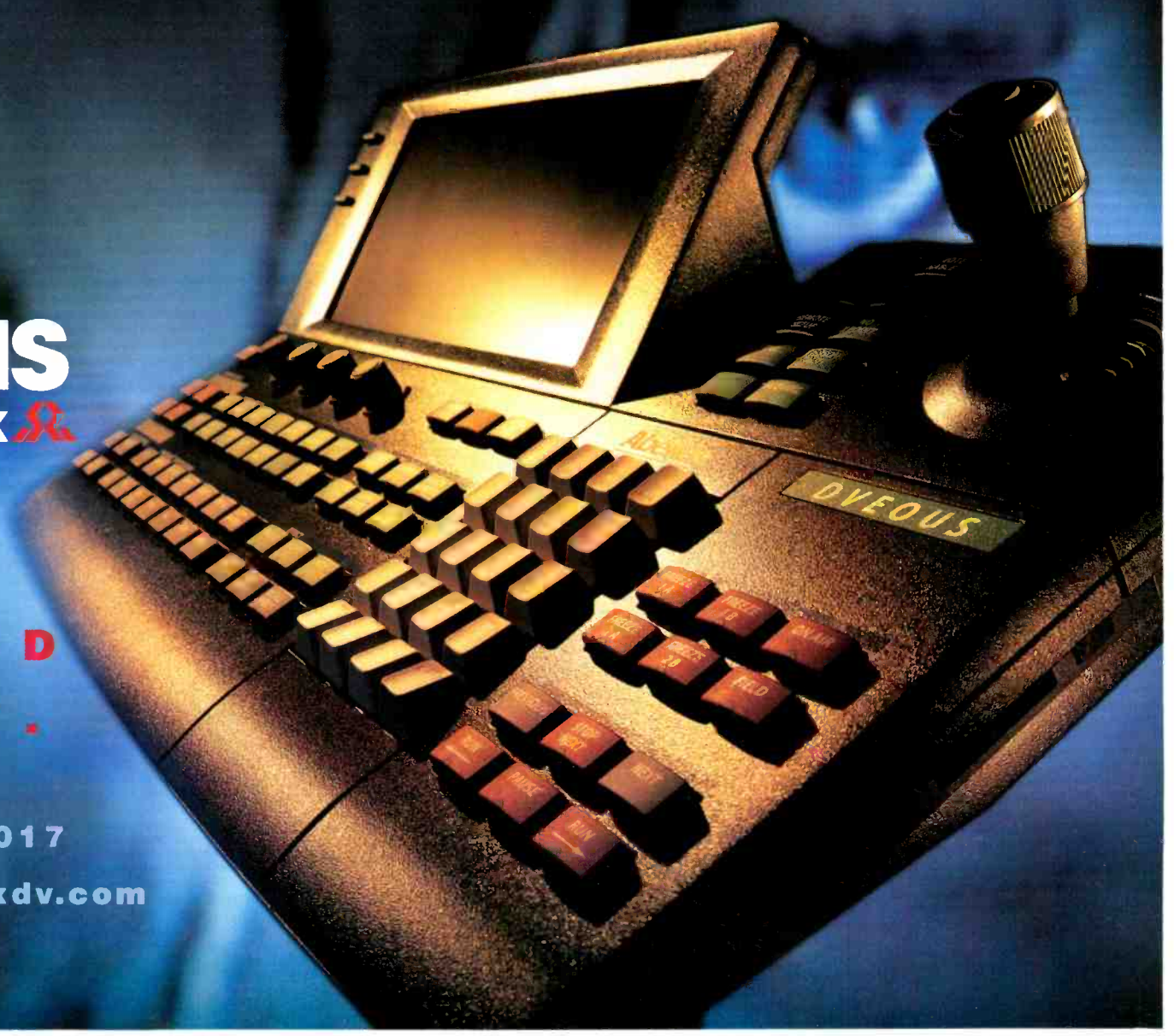

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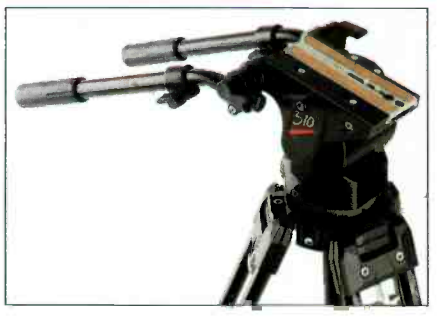
Circle (19) on Free Info Card

Automation Controller

Matco MA-204B: the latest update to the MA204 series, this product is a highly reliable, free-standing automation controller and 22x3 video and stereo audio router; the MA-204B adds SMPTE and tone cuing as standard, Microsoft Windows-compatible control program and direct support of video servers, including the Matco MA-400; 408-353-2670; fax 408-353-8781; matco1@ix.netcom.com

Circle 132 on Free Info Card

Tripod Head



Bogen Manfrotto pro video tripod head: new range of features; tripod can support cameras from 14 to 23 pounds; complements the original 510 head; provides advanced three-step drag system for 360° and +75° to -70° tilt with smooth stop and starts; info@bogenphoto.com; www.bogenphoto.com

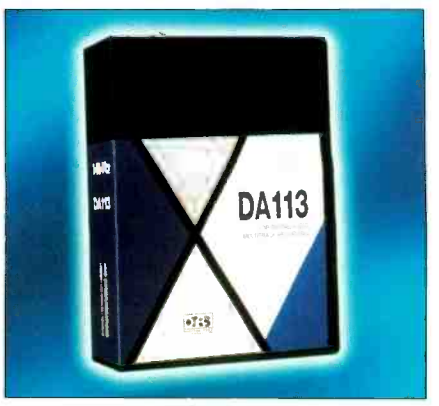
Circle 133 on Free Info Card

Digital IFB Controller

Comtek DX 3-4: this controller has easy-to-learn control features with matrix routing connections to four universal inputs, three outputs and two I/O ports used for direct interface from cell phones, telco lines and standard two- or three-wire intercom systems; any function designated IFB may be vox operated with automatic programmable attenuation; 801-466-3463; fax 801-484-6906

Circle 134 on Free Info Card

Digital Eight-Track Tape



HHB DA113: this digital eight-track tape is optimized for Tascam DA88 and Sony PCM800 digital audio eight-track recorders; the DA113 features superior quality and 113-minutes in length; it also features a specially formulated metal binder that is key to ensuring a negligible drop-in output after the repeated playback cycles required in professional applications; the bond between the ultrafine metal particle recording layer and the bass film of the HHB DA113 is so strong that even after 100 passes, the measured drop-in output is less than 0.5dB; 310-319-1111; fax 310-319-1311; sales@hhbusa.com

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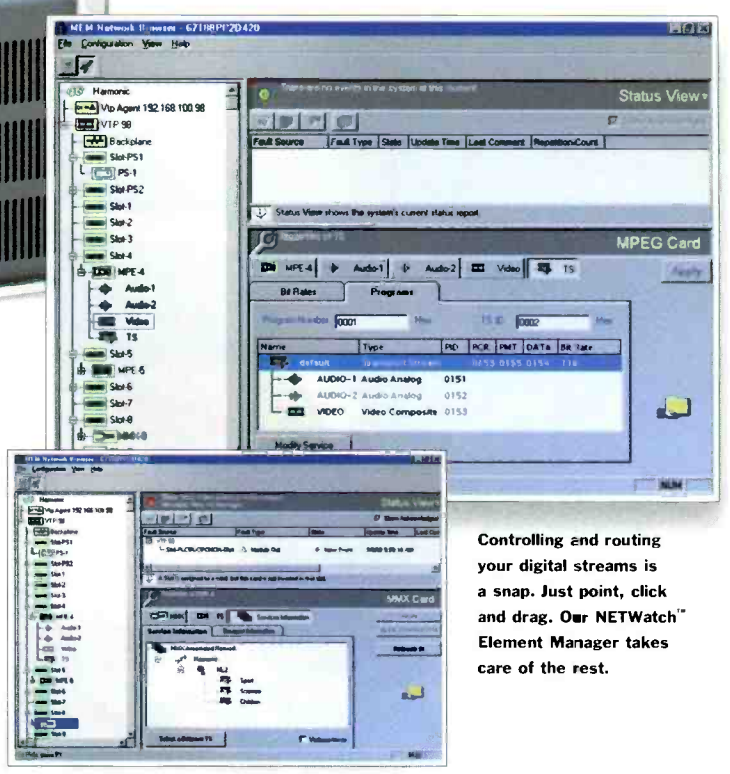
Play Our Slots

Get Lots of Change

Harmonic's TRANsend™ MPEG-2 Digital Video platform allows you to integrate up to 10 of our hot-swappable encoder and multiplexer cards in combinations that are right for you – without cumbersome external cables.



Controlling and routing your digital streams is a snap. Just point, click and drag. Our NETWatch™ Element Manager takes care of the rest.

The result of this unique "hot-slot" platform is unparalleled performance, flexibility and value, plus a system engineered to ensure you'll never be behind the technology curve. You'll be able to easily upgrade as technology evolves, which means that your investment will never be lost.

Don't bet your digital future on an MPEG-2 video system that may become obsolete. Contact Harmonic Lightwaves. We'll show you how to keep your investment safe.

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tel: 800 788-1330, 408 542-2500
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AMEK DMS: designed for audio post-production and broadcast applications; provides fully all-digital mixing with 32-bit floating-point DSPs and modular I/O system supported by a highly flexible chassis design; 818-973-1618; fax 818-973-1622; amek@pacificnet.net; www.amek.com

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EMF Graphical Readout

Holaday HI-4460 hand-held EMF readout: provides large backlit LCD panel to display multiple numeric and graphical electromagnetic field representations; display can show resultant reading, individual axis readings, bar graphs, as well as a running time plot simultaneously; 612-934-4920; fax 612-934-3604; holaday@holaday.com; www.holadayinc.com

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1	43	85	127	169	211	253	295	337	379	421	463
2	44	86	128	170	212	254	296	338	380	422	464
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4	46	88	130	172	214	256	298	340	382	424	466
5	47	89	131	173	215	257	299	341	383	425	467
6	48	90	132	174	216	258	300	342	384	426	468
7	49	91	133	175	217	259	301	343	385	427	469
8	50	92	134	176	218	260	302	344	386	428	470
9	51	93	135	177	219	261	303	345	387	429	471
10	52	94	136	178	220	262	304	346	388	430	472
11	53	95	137	179	221	263	305	347	389	431	473
12	54	96	138	180	222	264	306	348	390	432	474
13	55	97	139	181	223	265	307	349	391	433	475
14	56	98	140	182	224	266	308	350	392	434	476
15	57	99	141	183	225	267	309	351	393	435	477
16	58	100	142	184	226	268	310	352	394	436	478
17	59	101	143	185	227	269	311	353	395	437	479
18	60	102	144	186	228	270	312	354	396	438	480
19	61	103	145	187	229	271	313	355	397	439	481
20	62	104	146	188	230	272	314	356	398	440	482
21	63	105	147	189	231	273	315	357	399	441	483
22	64	106	148	190	232	274	316	358	400	442	484
23	65	107	149	191	233	275	317	359	401	443	485
24	66	108	150	192	234	276	318	360	402	444	486
25	67	109	151	193	235	277	319	361	403	445	487
26	68	110	152	194	236	278	320	362	404	446	488
27	69	111	153	195	237	279	321	363	405	447	489
28	70	112	154	196	238	280	322	364	406	448	490
29	71	113	155	197	239	281	323	365	407	449	491
30	72	114	156	198	240	282	324	366	408	450	492
31	73	115	157	199	241	283	325	367	409	451	493
32	74	116	158	200	242	284	326	368	410	452	494
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34	76	118	160	202	244	286	328	370	412	454	496
35	77	119	161	203	245	287	329	371	413	455	497
36	78	120	162	204	246	288	330	372	414	456	498
37	79	121	163	205	247	289	331	373	415	457	499
38	80	122	164	206	248	290	332	374	416	458	500
39	81	123	165	207	249	291	333	375	417	459	501
40	82	124	166	208	250	292	334	376	418	460	502
41	83	125	167	209	251	293	335	377	419	461	503
42	84	126	168	210	252	294	336	378	420	462	504

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Full function keyers have dedicated push buttons, flying borders for every key type, Squeeze & Tease. chroma keying, key over transition, quick preview & take, and bi-color on-air status

Chroma Keyers with chroma suppression, hue rejection, natural & simulated shadows and transparencies

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All MLEs have full effects capability, their own memory system keypad, two pattern generators, five comprehensive matte generators and dual chroma keyers

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DVE Effects from all popular DVEs are seamlessly integrated as switcher transitions

11 RU frame
Redundant power
600 W, 1/4 line delay

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Ross has combined the latest digital technology with a firm understanding of video production and over 20 years of switcher design experience to develop a series of production switchers which will be the standard that all digital switchers will be compared to for years to come.

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DVB-T Exciter with integrated OFDM Modulator

The Exciter, with integrated OFDM Modulator, provides a 1 Wrms OFDM RF output signal of superior quality and stability in either VHF band III or UHF bands IV/V, fully compliant to ETSI ETS 300 744. Itelco's DVB Exciter features modular plug-in design, optimal integration of digital and analog technologies, upgradability to Single Frequency Network (SFN), maximum on-air availability, built-in diagnostics and remote control interface. The Exciter measures the same compact dimensions as an analog exciter, allowing easy upgrade.

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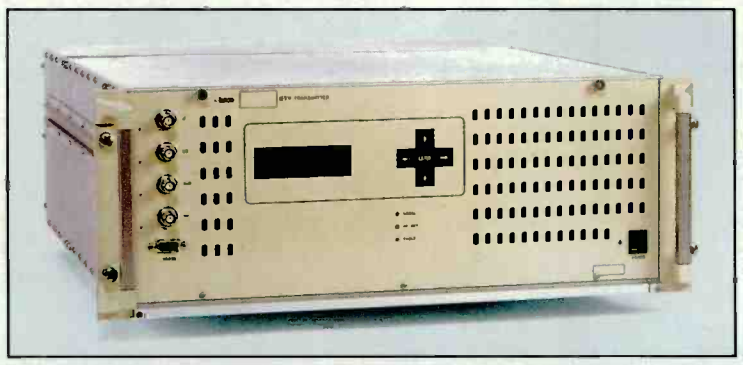

DTV Exciter with integrated 8-VSB Modulator

Itelco's DTV Exciter provides a 1 Wrms DTV RF on channel signal in either VHF or UHF bands of superior quality and stability, fully compliant to ATSC DTV standard. The Exciter features modular plug-in design, Itelco proprietary DTV 8-VSB Modulator, advanced precorrector, built-in diagnostics and remote control. The Exciter is housed in a compact frame which occupies the same space as NTSC or PAL exciter, allowing easy upgrade.

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100 - 800 Watt DAB L-band Transmitters with LDMOS technology

100 Wrms through 800 Wrms DAB Transmitters include Itelco's state-of-the-art DAB (OFDM) Exciter with integrated COFDM encoder and digital precorrector. The Transmitters feature excellent analog and digital performance, full compatibility with ETSI ETS 300 401 edition 2, flexible design, use of latest LDMOS transistor technology, and straightforward system control. The simple installation, high efficiency and superb reliability of the Transmitter ensure low operating costs throughout the Transmitters long service life.

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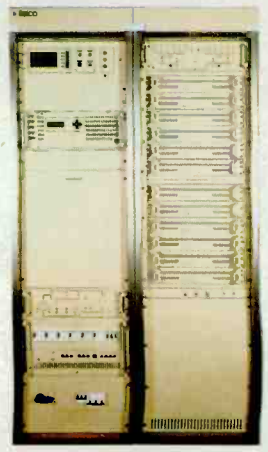
1-30 kW DTV solid state Transmitters with liquid cooling system



1 kWrms through 30 kWrms DTV Transmitters operating in VHF or UHF bands and fully conforming to ATSC DTV specifications. The Transmitters feature innovative DTV 8-VSB Exciter, clear modular design, unique patented liquid cooling system, unreached safe operating area, extraordinary redundancy, most compact overall dimensions, economy, and ease of installation and maintenance. The lowest transistor flange and junction temperature in the industry provides an outstanding MTBF. The Transmitters are also available with DVB-T (OFDM) Exciter.

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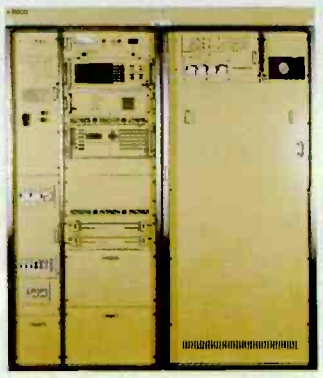
10 -100 kW DTV IOT Transmitters with switch-mode beam power supply



10 - 100 kW DTV Inductive Output Tube (IOT) Transmitters provide unmatched performance and full compatibility to ATSC DTV specifications. The Transmitters feature innovative DTV 8-VSB Exciter, unique choice of linear or switch-mode beam power supply, efficient liquid cooling, multiple tube suppliers, high performance cavities manufactured by Itelco, economy, and straightforward microprocessor-based system control. The very compact dimensions and simple liquid cooling system ensure easy and quick installation. The Transmitters are also available with DVB-T (OFDM) Exciter.

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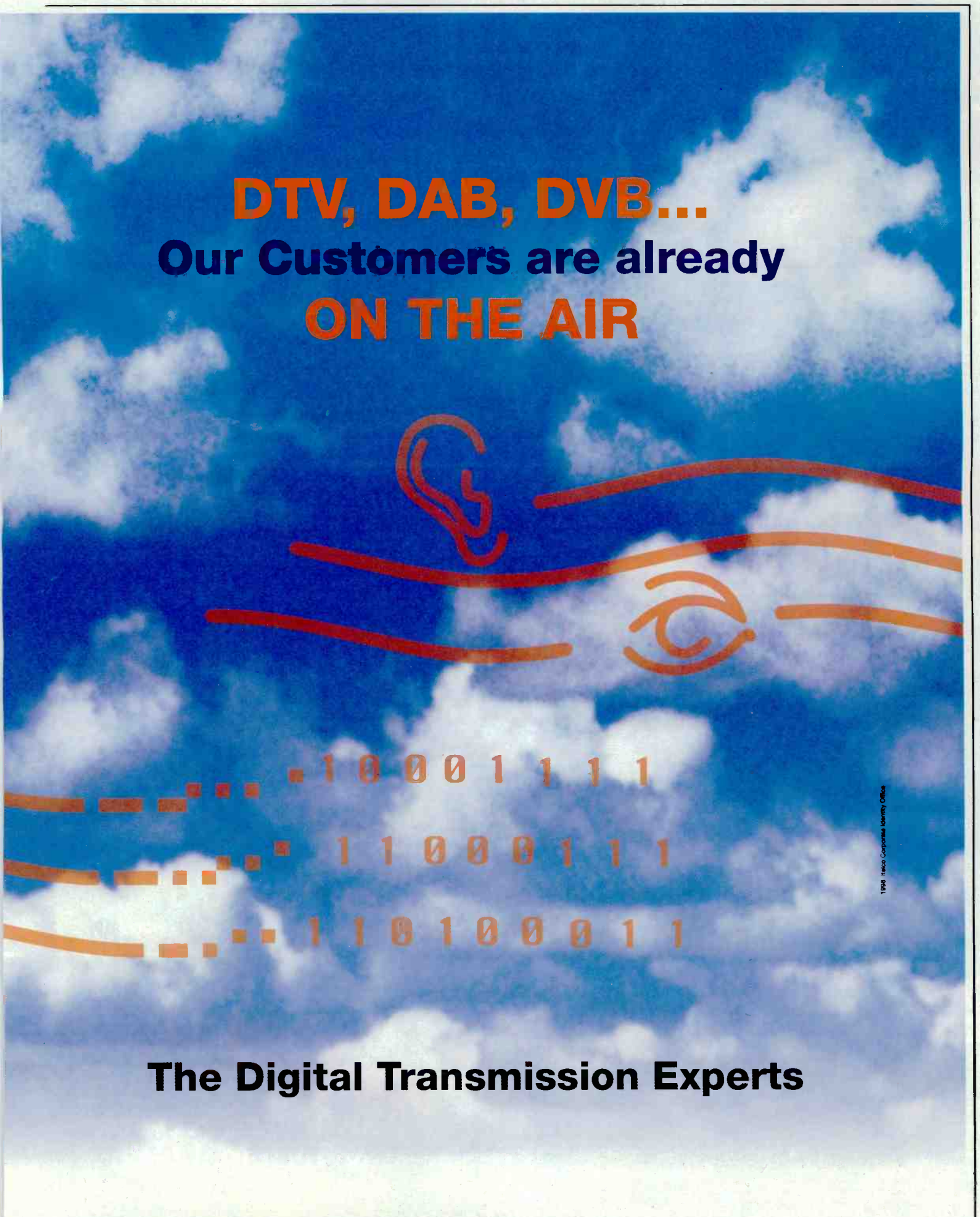

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All DVCPRO camcorders include The Worldwide Standard® Anton/Bauer Gold Mount installed at the factory as standard equipment. The Gold Mount® unlocks exclusive features of each DVCPRO camcorder as well as the performance, power and reliability of the InterActive™ battery technology.

The full range of Anton/Bauer products is recommended by Panasonic to power all DVCPRO equipment. From the pioneering technology of the Digital battery, to the unmatched performance and versatility of the PowerCharger, to the studio-quality Ultralight high efficiency on-camera light.

Anton/Bauer, The Worldwide Standard® of broadcasters and professionals around the world is now the standard worldwide for Panasonic DVCPRO.

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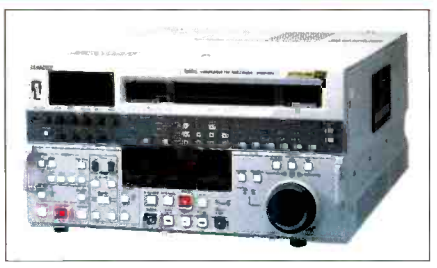
Line of Fiber-Optic Communication Products

Communications Specialties Inc. (CSI) fiber-optic line: as a result of CSI's recent acquisition of Math Associates, a manufacturer of fiber-optic systems, CSI is introducing six fiber-optic products, each suited to the unique needs of the teleconferencing and communications industries; the line includes Fibervision for video transmitter and receiver system, Fibervision for video/stereo transmission of a composite video (NTSC, PAL or SECAM), Fibervision for serial digital video for high-quality transmission of video signals, Fiberlink for balanced audio, Fiberlink for bidirectional data and Fiberlink for bidirectional T-1 data; 516-273-0404; fax 516-273-1638; www.commspecial.com

Circle 138 on Free Info Card

Editing Recorder/Player for Betacam SX



Sony DNW-A75: the latest recorder/player in the Betacam SX product line, the DNW-A75 editing recorder/player features frame-accurate editing on Betacam SX tape, plus a full range of BetacamSP playback capabilities; the DNW-A75 also adds efficiency to editing by recognizing shot information entered during acquisition; 800- 686-SONY; fax 201-358-4058; www.sony.com

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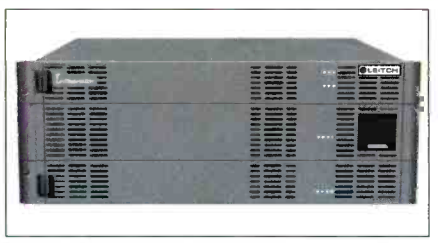

Leitch Integrator family of routers: these routers expand to as large as 18x64 and will soon be available in analog audio, AES, analog video and serial digital video versions; users can mix analog and digital formats in the same frame, and on the serial digital version, feed in coax or fibre; these routers are front loading and feature hot-swappable power logic cards and are backward compatible; 800-387-0233; fax 416-445-4144

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MPEG/DVB Test Generators and Analyzers

Tektronix MTS200 Series: MPEG test systems that offer extensive MPEG and DVB analysis capabilities to perform functions ranging from real-time analysis to custom creation and in-depth analysis of MPEG transport streams; they perform real-time analysis with trigger capability for trapping errors that can be analyzed in detail at a later time; 800-426-2200 (press 3, code 1072); fax 413-448-8002; www.tek.com/Measurement

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Transport Stream Generator

Digital Transport Systems MPEG-2/DVB transport stream generator system: new configurations provide greater flexibility, PCI bus-based architecture and WindowsNT functionality; this system allows equipment designers and manufacturers to perform real-time capture and playback of MPEG-2/DVB transport streams for use as a test source for multiplexers, demodulators or encoders; 619-675-1410; fax 619-675-1412; sales@dtsys.com

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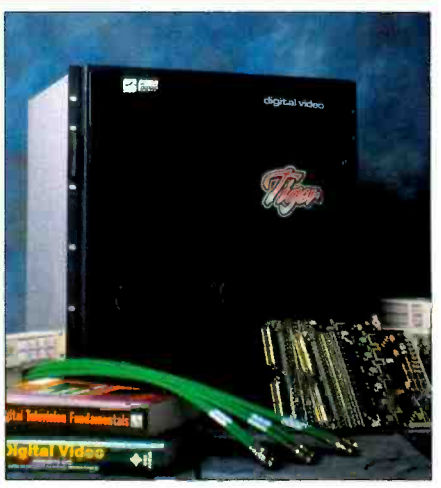
Routing Switcher



PESA Tiger routing switcher: this routing switcher is scaleable from 8x16 to 144x144; the video chassis (12RU) supports SMPTE 259M digital and 60MHz analog video in the same frame and the audio chassis (8RU) provides two channels of analog audio or two AES levels; the Tiger is expandable to 288x288 or larger; 516-845-5020; fax 516-845-5023; salesinfo@pesa.com; www.pesa.com

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Real-time Digital Special Effects System

Pinnacle Systems DVEXtreme: a real-time digital special effects system for high-end broadcast and post-production applications; the video fidelity is pristine given its 10-bit 4:2:2 processing and advanced filtering techniques; the DVEXtreme can be configured for dual- or triple-channel operation and each channel comes with video and key standard; 650-526-1600; fax 650-526-1601; pr@pinnaclesys.com; www.pinnaclesys.com

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Repeatable Source for ATSC Test Signals

Sencore AT951 ATSC stream player: an affordable answer for digital video facilities looking for a reliable ATSC signal source for repeatable test signals for use in repair, manufacturing or testing environments of ATSC products; ATSC transport streams can be recorded and played out at data rates of up to 60Mb/s; 800-SENCORE or 605-339-0100; fax 605-339-0317

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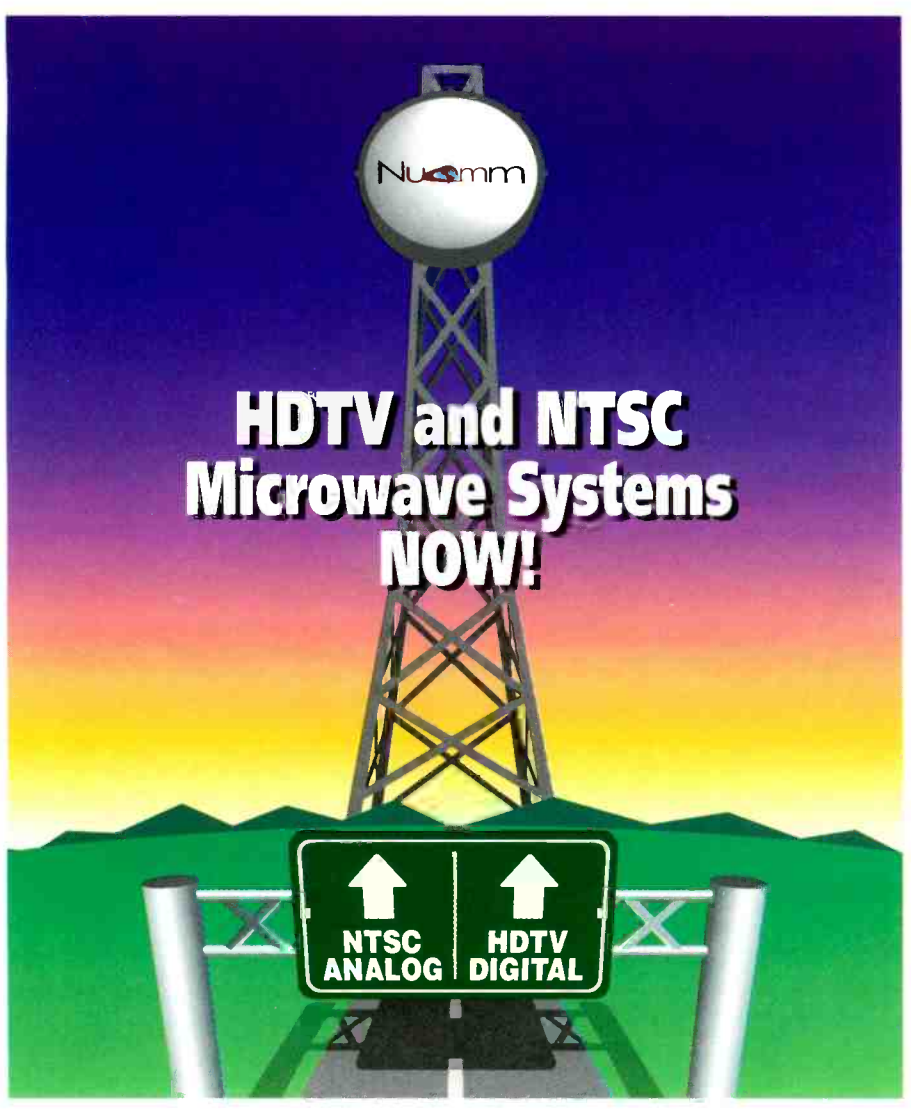
A/B Digital Linear Keyer-Switchers

PSP Digital Ltd. PVS-4, PVS-2: the stand-alone PVS-4 is capable of true 4:4:4 signal processing and incorporates a PC-based design that provides the flexibility to integrate third-party signal processing hardware; the unit can be controlled under GVG emulation from a PC or workstation or it can be used with an optional control panel; the PVS-2 4:2:2 is for autoconforming and graphics composition applications; 44-1635-522-534; fax 44-1635-551-995; www.psp-digital.co.uk

Circle 146 on Free Info Card



Nucomm, Inc. has developed an integrated digital STL turnkey solution for every HDTV requirement. System configurations range from a single digital microwave STL for a 19.39 Mbit system to a fully redundant dual channel STL system that can carry both NTSC and HDTV signals over a single STL frequency. This system has been fully proven at the model station.

Consult our application engineers for a solution to meet your specific needs.

- Redundant Systems
- Space Diversity
- Seamless Switching
- Full Multiplex

MEMBER MODEL STATION

Nucomm

908-852-3700 • www.nucomm.com

Circle 30 on Free Info Card

Stepping up to digital broadcasting used to be a risky business.

Introducing the new DiviCom MediaView™ MV40 encoder. With its powerful architecture and built-in upgrade path, the MV40 MPEG-2 encoding system protects you against the shattering effects of a changing digital environment. Without it, your technology investment could be in jeopardy.

A full complement of advanced features includes sophisticated preprocessing, 4th generation dual-pass compression technology, unique lookahead statistical multiplexing and 4:2:0/4:2:2 switchability. All of which adds up to higher quality video at lower bit rates, and a risk-free migration path to high definition TV. Take the first step now. Call DiviCom at +1.408.490.6560, or visit us at www.divi.com.

MediaView is a trademark of DiviCom Inc.

How Digital Video Networks.

London • Paris • Hong Kong • Silicon Valley

Circle (35) on Free Info Card

Largest Video Catalog Ever From Winsted

Winsted has just published the largest catalog in its history. The 164 page catalog features extensive additions to its broadcast, video, multimedia desk, and media storage line. New LAN and file server products with versatile mobile LRx Stations featuring L-Frame architecture expand on the exciting product line introduced last year. Several new mobile producer's desks ranging from 42" up to 94" wide add to the wide line of desks already offered to the multimedia and video production industry. Several unusual new accessories are featured including a 21" wide keyboard shelf for standard keyboards that swivels in order to be slid out of the way when not in use. The keyboard shelf is designed to be incorporated into a 19" EIA wide slope or vertical rack and requires only 2U of rack space. It includes a platform for a mouse pad.

To bolster Winsted's vertical rack line expanded last year by the introduction of the VRx premium rack, Winsted now has added a full line of welded economy racks. These economy racks feature many quality features including a textured black enamel finish for a maintenance-free long life. Although these vertical racks are perfect for any electronic environment, they are especially suited for the broadcast and video markets. A free copy of Winsted's new catalog is available by contacting the company in any of four convenient ways: call toll free 800-599-6691, email Winsted at racks@winsted.com, visit their website at www.winsted.com, or write them at 10901 Hampshire Ave. So., Minneapolis, MN 55438.

Circle 43 Free Info Card

Winsted Fileserver Station Fills An Emerging Need

Winsted corporation has recognized a growing need in the broadcast and LAN markets for a portable and modular fileserver. To answer that need they have introduced the modular LRx series of fileserver stations featuring steel L-frame architecture. Although there are several complete models from which to choose, the modular design of this new line allows the user to mix and match components to create their own organized system with a clean appearance. Each system includes smooth rolling wheels for mobility.

The basic L-Frame comes with either a stationary server shelf for multiple servers or a pullout server shelf for individual servers. The sliding server shelves have optional retractable cable lacing guides which keep cable in place while the server shelf is pulled out. Pull-out keyboard shelves, deep enough to hold three keyboards, come in flat or tiered versions. Each section will hold two monitor shelves, and either shelf can be tilted for easy viewing. All shelves can be raised or lowered in 1" increments.

Several optional accessories are available such as cable management tracks, a 72" wiring channel, monitor straps, rack mount panels, and a ten outlet power supply.

These new file server stations as well as a complete line of accessories are all described in detail in the new 164 page Winsted catalog which is available free by calling 800-559-6691 or by writing to the Winsted Corporation, 10901 Hampshire Ave. So., Minneapolis, MN 55438. You can also learn more about them by visiting the Winsted website at: www.winsted.com.

Circle 44 Free Info Card

New Top-Of-The-Line Racks From Winsted

The VRx series is an all-new line of heavy duty vertical racks from Winsted. The all-welded units are 78-3/4" (45U) have an overall size of 86"H x 24"W x 30"D, and are packed with top-of-the-line performance features. The racks have a heavy black enamel textured finish for an attractive, non-marring surface that doesn't show finger prints.

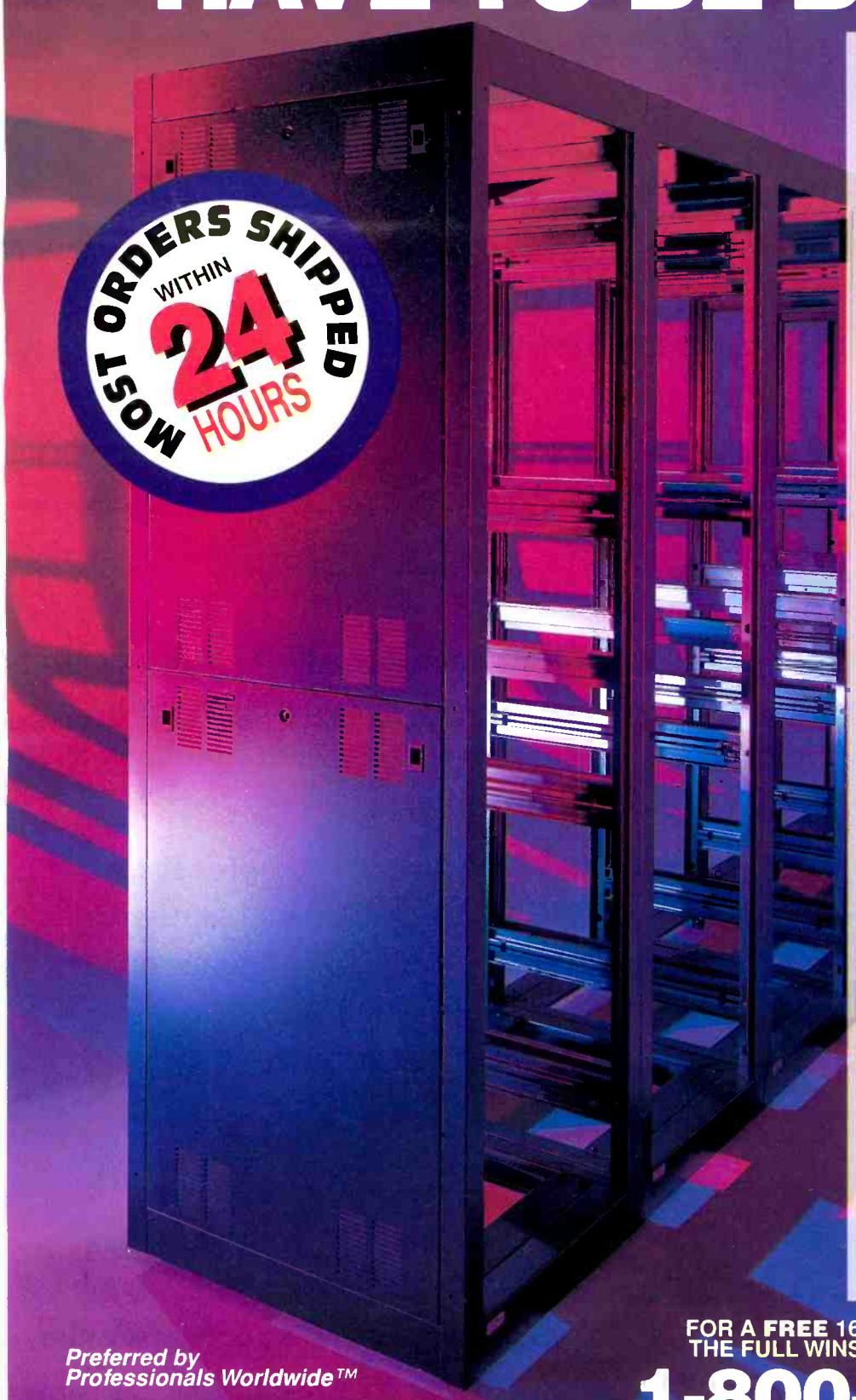
The VRx has front and rear rack rails that adjust front to back to accommodate electronics of any depth. These rails are anodized and are tapped (10-32) for equipment mounting that meets strict EIA standards. Both the top and bottom of the rack are open and have 19" wide tapped rails to allow mounting of standard vented panels, fan units or other panels. Other features include: independent two-piece lift-off side panels, large corner uprights for strength, an easy to install lacing bar that allows easy cable management, conduit knock-outs top and bottom, two grounding lugs, and mounting holes in top for eyebolts.

Winsted offers a wide variety of optional accessories to complete a rack system such as stationary shelves, pull-out shelves, electrical outlets, fan cooling systems and much more.

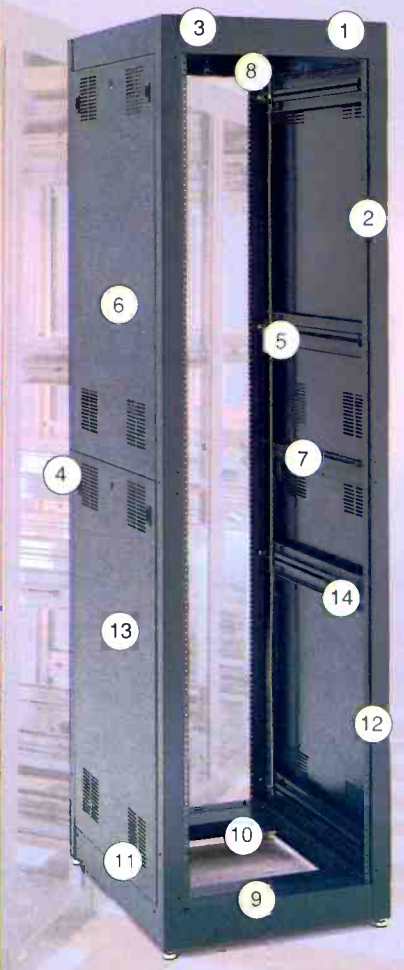
A full line of equipment racks is described in detail in the new 164 page Winsted Catalog available free by calling 800-559-6691 or by writing to The Winsted Corporation, 10901 Hampshire Av. So., Minneapolis, MN 55438.

Circle 45 Free Info Card

VERTICAL RACKS DON'T HAVE TO BE BORING



Rack buyers, bored with the same old specs are finding new and exciting features to think about with Winsted's New VRx Racks



1) Mounting holes in top for eye-bolts.
2) Fully adjustable rack rails.
3) Heavy-duty welded construction.
4) 2-piece lift-off side panels.
5) Tapped rack rails, front & rear.
6) Black textured long-life finish.
7) Cable management system.
8) Conduit knock-outs, top & bottom.
9) Open top & bottom w. EIA rack rails..
10) Two grounding lugs.
11) Venting top and bottom.
12) Racks meet strict EIA standards.
13) Independently tested for strength.
14) 78-3/4" (45U) of usable rack space.

Preferred by Professionals Worldwide™

FOR A **FREE** 164 PAGE CATALOG DETAILING THE FULL WINSTED FURNITURE LINE CALL:

1-800-559-6691

Winsted®

The Winsted Corporation
10901 Hampshire Av. So. · Minneapolis, MN 55438-2385

Circle (36) on Free Info Card

Fax: 800-421-3839, 612-944-1546 · web site:www.winsted.com · email: racks@winsted.com

Winsted Offers New DVCPRO Rack Slide Kit

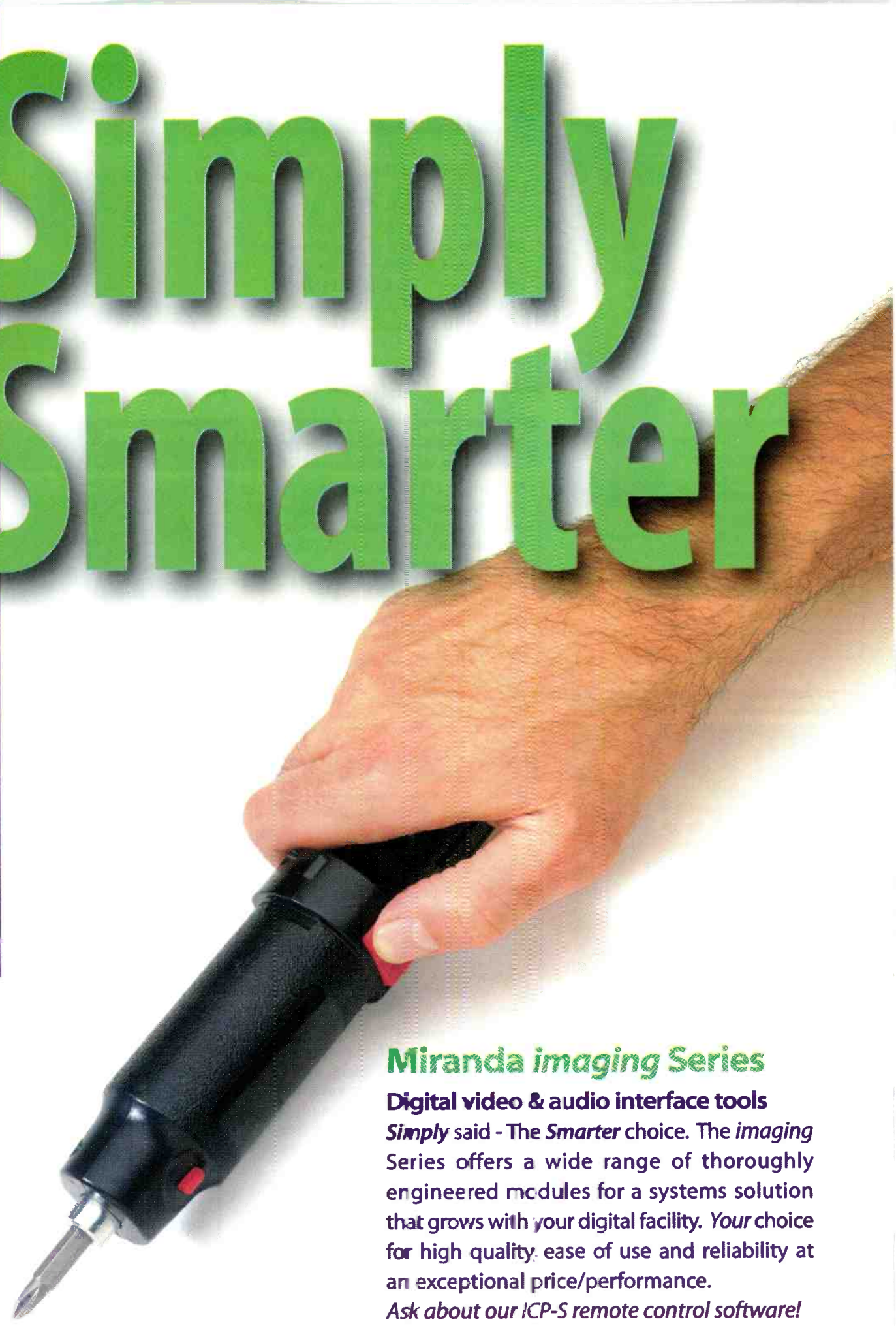
Winsted Corporation has expanded their offering of professional quality Rack Slide Kits. Guided by the growing popularity of the Panasonic DVCPRO VTR models, AJ-D640/650 and AJ-D750, Winsted has added the model F8203 to their wide offering of rack slide kits designed specifically for Panasonic, JVC, and Sony VTRs. This extensive line of rack slides also includes models designed for Vicon and Barco monitors.

Just as with all Winsted Rack Slide Kits, these models will feature: heavy duty chassis support brackets, Accuride ball bearing slides for smooth pulling action, and pivoting rear finger brackets to allow mounting in sloping or vertical racks. All Winsted Rack Slide Kits come with large chrome handles with extruded aluminum handle brackets and slide rails custom punched to the original VTR equipment specifications

The new DVCPRO models list for $235.00. To get your free Winsted catalog or for more information regarding these and other Rack Slide Kits call Winsted at 800-559-6691 or write to Winsted at, The Winsted Corporation, 10901 Hampshire Ave. So., MN 55438. You can also get more information on these and other Winsted products by visiting their website at: www.winsted.com.

Circle 46 Free Info Card

Simply Smarter



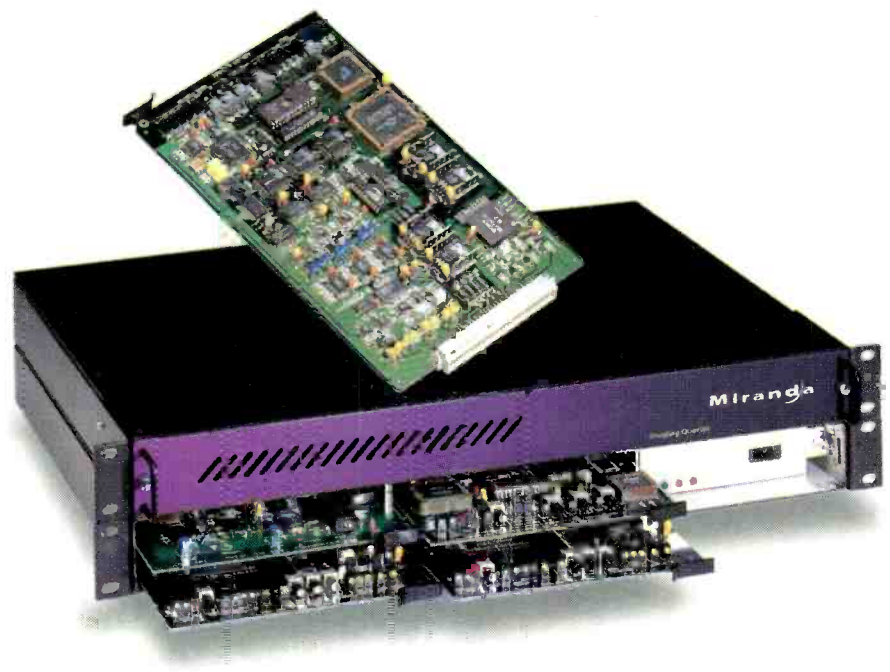
- 4:2:2/CAV D to As and A to Ds
- Audio D to As and A to Ds
- 4:2:2 & $4f_{SC}$ Converters
- Ancillary Data Processors
- 4:2:2 Ethernet MUX/DEMUXs
- Digital Video & Audio DAs
- Frame Synchronizers
- Remote Control Software

Miranda *imaging* Series

Digital video & audio interface tools

Simply said - The ***Smarter*** choice. The *imaging* Series offers a wide range of thoroughly engineered modules for a systems solution that grows with your digital facility. *Your* choice for high quality, ease of use and reliability at an exceptional price/performance.

Ask about our ICP-S remote control software!



Miranda

Miranda Technologies inc.
Tel. 514.333.1772 Fax. 514.333.9828
www.miranda.com
1-800-224-7882

Circle (37) on Free Info Card

Antenna

Shively Labs Model 2200: for broadcasters worried about dropouts of their DTV signal because of pattern scalloping, the model 2200 antenna limits scalloping to only 0.5dB peak-to-peak (@470 MHz), offering the best omnidirectional pattern of any UHF broadcast antenna system, including broadband panels, which have as much as 7dB scalloping peak-to-peak; by stacking one antenna on top of another, it is possible to broadcast as many as 20 stations (total input power of up to 200kW) from a top-mount model 2200; 207-647-3327; fax 207-647-8273; sales@shively.com; www.shively.com

Circle 147 on Free Info Card

Telecine System

Cintel C-Reality: C-Reality offers uncompromised 14-bit digital scanning resolution in each of three color channels — a full 1,920 pixels per line and a full 1,080 lines of color resolution; full bandwidth scanning enables transfers at HD, 525, 625 and 2K RGB; 805-294-2310; fax 805-294-1019

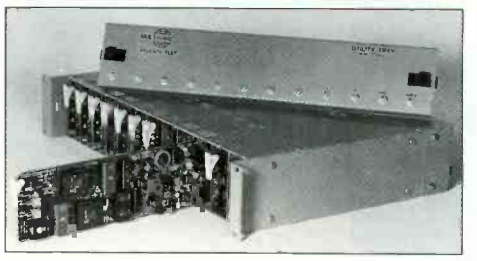
Circle 148 on Free Info Card

DV-Based Non-Linear Editing System

Sony ES-3: a DV-based non-linear editing system is the first professional-level editing system with direct i.LINK (IEEE-1394) interface support for DV and DVCAM acquired digital footage; it features ClipLink support and Direct Digital Link for i.LINK, QSDI and SDI digital interfaces in addition to standard analog I/Os; 800-686-SONY; fax 201-358-4058; www.sony.com

Circle 149 on Free Info Card

Serial Digital Video Distribution and Fiber-Optic Products



Multidyne DTV-200 series: a product line intended to ease the engineering and financial difficulties associated with the migration to DTV; the series provides a solution for the coaxial and fiber-optic transport and distribution of virtually any digital signal from 50Mb/s to 650Mb/s; the supported standards include SMPTE 259M serial digital interfaces, 4:2:2 component and widescreen, 540Mb/s 4:4:4:4 Sonet/SDH and ATM; 800-488-8378 or 516-671-7278; fax 516-671-3362; info@multidyne.com; www.multidyne.com

Circle 150 on Free Info Card

Router

Network Systems Pro XL: provides fully featured matrices based on 32x32 size and is available for these signal formats – analog video and audio, serial digital video and AES/EBU audio; basic composite video router may be re-configured into an 8x8 RGBS unit, with minor adjustments to software; comes in 19-inch, 3RU frame and has MIDI-bus controller; 212-727-1500; fax 212-727-1766; TobinVideo@aol.com

Circle 151 on Free Info Card

Hard Disk Recorder

360 Systems DigiCart/II Plus digital recorder: combines the work of three machines — hard-disk recorder, mini audio workstation and digital cart machine; recordings stored on two internal hard disks and a removable zip drive; system provides eight, 16 or 24 hours of AC-2 recording time, maximum recording time of 144 hours; 818-991-0360; fax 818-991-1360; info@360systems.com; www.360systems.com

Circle 152 on Free Info Card

Non-Linear Editing and Graphics System

Pixel Power Collage Edit: a non-linear editing system with more than 50 new features and interface refinements; EDit version 'Triple One' is a significant development of the system's capabilities, with recent installations in CityTV (Toronto), Oasis Television (London), Key Editing (Stockholm) and Unilever (UK); combines the functionality of a high-end, non-compressed non-linear editing system, sophisticated real-time character generation and graphics capabilities, 8-channel audio and DVE; uncompressed 4:2:2 quality; standard 36- or 72-minute uncompressed video storage with up to 12 hours audio; www.pixelpower.co.uk

Circle 153 on Free Info Card

A/V Monitor

PanoramaDTV (a Wohler Technologies company) VAMP-1 SDI: an audio/video monitor that offers the ability to monitor four channels of analog or digital audio and video signals, including SDI, from one 2RU space; built-in LCD screen allows simple confidence monitoring, composite output for viewing video on larger, external video monitors; self-powered speaker system, headphone out, source switch, four level meters and phase indication; 888-5-WOHLER; www.wohler.com

Circle 154 on Free Info Card

Wireless Intercom

Systems Wireless Series 800: this UHF wireless intercom system includes optional ISO and stage announce capabilities from beltpac remotes; can operate as a stand-alone system or can be interfaced with most hardwired intercom systems; up to four users per base station can operate hands-free at ranges in excess of 2,000 feet; beltpacs can be powered by four "AA" batteries or optional NiCd battery; 703-471-7887; fax 703-437-1107; swl@swl.com

Circle 155 on Free Info Card

UHF Wireless Intercom

BH800 Beltpack Remote

Series 800 UHF Base Station

Range of Up To 1/2 Mile
Interfaces to Existing Intercoms
Works with Your 2-Way Radios!

• Sales
• Rentals
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Sold and Distributed By:
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Circle 38 on Free Info Card

AUDIO SYNCHRONIZER/ DELAY UNITS FOR VIDEO

Easily Fix Synchronization And Timecode Errors.

Designed specifically to tackle the challenges inherent in the video environment.

Choose from six models, all space-saving 1U units, ready to suit any application and budget. Available in analog and/or AES/EBU digital, these units allow the user to set delay time in samples, Msecs, fields or frames. Eight-user memory with lock function. RS-232 remote features with optional Windows95 software.

Circle (52) on Free Info Card

IN-PICTURE AUDIO MONITORING

Monitor Audio Performance Directly From Your Video Monitor.

Audio metering bargraphs are superimposed and mixed with a composite or component video signal. Error alarms for signal loss, overrange and phase. Available in analog or digital, including SDI.

The Most Comprehensive Range In The Industry.

Over 12 models to choose from, to fit every application and every budget. All fit in 1U, saving rackspace.

Circle (53) on Free Info Card

LEVEL METERS & ALARMS

Two Functions in 1U Rackspace: Audio Indication and Error Alarms.

Two, four, six or eight-channel Level Metering and Alarm functions combined. All units feature large tri-color LEDs for clarity even at a distance, alarms for signal loss, overrange and out-of-phase conditions. Analog and/or digital.

Also available:

- Up to 20 channels of either Audio Indication or Alarm capability in 1U.
- Custom systems for larger multi-channel applications
- Mechanical PPM or VU meters

Circle (54) on Free Info Card

AUDIO/VIDEO MONITORS

Monitor Analog Or Digital Audio And Video Signals, Including SDI.

While the built-in LCD screen allows simple confidence monitoring, these units also include composite output for viewing video on larger, external video monitors.

Four level meters and phase indication for audio information.

Also includes a self-powered speaker system with headphone out and source switch for four channels.

Saves rackspace— only 2U high.

Circle (55) on Free Info Card

HOW TO GO DIGITAL WITHOUT GOING POSTAL.

It's finally happening— the world of broadcast television will soon be all-digital. It's exciting. It can also be terrifying, if you're the one who's in charge of specifying the equipment necessary to accomplish the transition.

We can help, every step of the way. Most of our digital products give you the option of switching between digital and analog, which means that the product you buy today, while you're still mainly analog, won't have to be thrown out and replaced tomorrow, when you're completely digital.

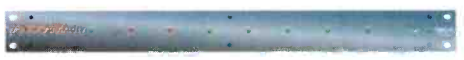
INTRODUCING PANORAMA dtv
A WOHLER TECHNOLOGY COMPANY

We're also introducing a new force in digital video: PANORAMA*dtv*, our new line of All-Digital Broadcast Video products. Representing the innovations of leading broadcast digital engineers from around the world, each of these exciting new products was designed from the ground up to ensure a smooth, trouble-free transition into the Digital Broadcast Television Era.

Find out more. Call us toll-free at (888)5-WOHLER. Or, check out our website at www.wohler.com. In the meantime, relax. All you need is a little professional help.

Wohler
CHARTER MEMBER ADVANCED TELEVISION SYSTEMS COMMITTEE

AUDIO CONVERSION



DAC Series Digital-to-Analog Converters

Convert two, four, six or eight digital AES/EBU audio channels to analog in only 1U. 20 Bit low jitter, front panel error indication. Can fit into same chassis as A/Ds.

ADC Series Analog-to-Digital Converters

Convert four, eight or sixteen analog inputs into two, four or eight AES/EBU channels in only 1U. 20 Bit low jitter, front panel error indication. Can fit into same chassis as D/As.

SDI Series SDI to AES/EBU & SDI to Analog

Demuxes & Converts SDI signal to AES/EBU or analog audio signal.

Circle (56) on Free Info Card

SERIAL DIGITAL VIDEO PERIPHERALS

NEW AND COST-EFFECTIVE!

SQ1000 Aspect Ratio Converter

Converts all aspect ratios bi-directionally, SDI In/Out, EDH insertion, and 10-bit quality.

CP1000 SDI Legalizer

Makes serial digital video legal and valid. Features 10-bit throughout, constant hue feature, hard and soft clipping. Legalizes detail in sub-blacks prior to clipping.

LK1000 SDI Logokeyer

Uses a digital keyer to superimpose logos onto SDI program picture. Simultaneously stores four different logos and their preferences. Full position and opacity controls. 16:9 compatible.

CG1000 SDI Safe Area Generator/Cage

Provides in-vision cursors in the SDV signal, blanking for different aspect ratios, 16:9, 14:9 and 4:3 compatible.

Circle (57) on Free Info Card

VIDEO CONVERSION

NEW TECHNOLOGY, INCREDIBLE VALUE.

SOON TO BE COMPATIBLE WITH FIREWIRE IEE-1394

Demo these against higher-priced units!

DD601 NTSC/PAL To SDI

Converts NTSC/PAL to SDI, Parallel 601 signal to 4 Serial BNC. 656 Standard 10 bit 4:2:2 at 27Mhz.

AD601 RGB & YUV To SDI Converter

Converts component YUV signals to SDI 4:2:2. Narrow or wide blanking selectable, picture positioning.

DA601 SDI 4:2:2 to YUV Or RGB Converter

Converts 4:2:2 digital to analog RGB or YUV video. Sync on green, narrow or wide blanking selectable.

DE601 SDI Encoder

Converts 4:2:2 to NTSC/PAL. Frame store will freeze last frame. Composite sync, genlockable.

Circle (58) on Free Info Card

IN-RACK SELF-POWERED SPEAKERS

Hundreds Of Models To Fit Any Application.

We invented the In-Rack Self-Powered Speaker, and we haven't stopped improving it since. Now we offer the largest, most comprehensive range in the industry.

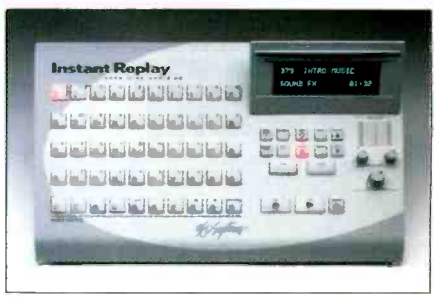
MONITOR UP TO 20 SOURCES FROM 1U

Space-saving 1U or 2U or half-rack 3U units are fully shielded, allowing placement right next to a video monitor with no interference.

Accepting multiple inputs from Analog, AES/EBU and/or SDI sources, they can include level meters and phase indication, D/A converters and/or SDI de-embedders. Monitor up to 20 sources from one small but powerful unit and always get clean, focused sound.

Circle (59) on Free Info Card

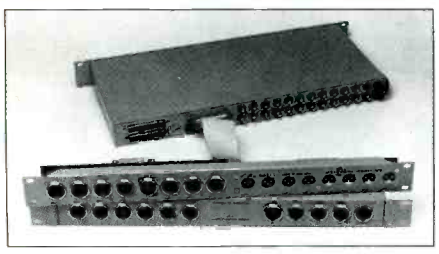
Hard Disk Audio Player



360 Systems Instant Replay 2.0: is a self-contained, professional digital audio player and recorder with immediate access to 1,000 audio cuts; offers linear and Dolby AC-2 digital compression technology; stores frequently used cuts to 50 Hot-Keys with name and ID number; recordings can be stored on the internal hard disk (with no length limitations) or on the optional Zip drive; comes equipped with D-NET file transfer capability; 818-991-0360; fax 818-991-1360; info@360systems.com; www.360systems.com

Circle 156 on Free Info Card

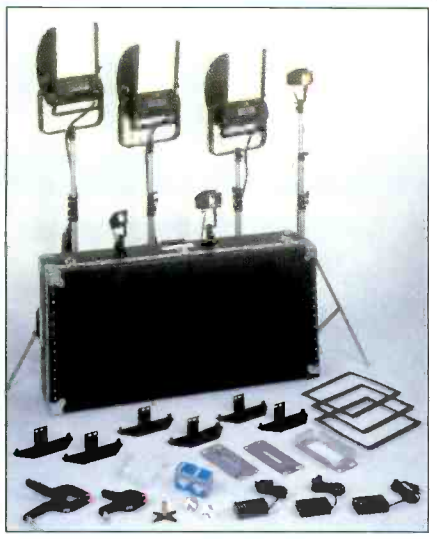
Break-Out Panel



Multidyne AIA-8X8: adapt the 25-pin D-connectors of the full line of Leitch routing switchers to XLR connectors using the AIA-8X8 XLR break-out panel and two ribbon cables; each adapter breaks out eight audio inputs and 8 audio outputs into a 1RU panel of 16 XLR connectors; adapter panels will work with an 8x1 up to a 64x64 routing switcher; 800-4TV-TEST; 516-671-7278; 516-671-3362; info@multidyne.com; www.multidyne.com

Circle 157 on Free Info Card

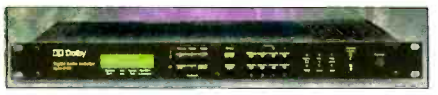
Light Kit



Pana-Tek Cool-Lux COMBO/SOFT Kit: this kit designed around the Cool-Lux Combo-Light, which accepts 300W, 500W, 750W or 1,000W double-ended lamps with a Softlight Hood to prevent projecting heat on the subject; the COMBO/SOFT Kit contains three Combo-Lights, barn doors, Softlight Hoods, diffusion accessories and 500W bulbs; the kit also contains two lightweight AC/DC Mini-Cools with 250W lamps, four-way barn doors and dimmers; for DC applications, the kit contains a 12V, 22W bulb and daylight filter assembly; a 35W, 12V Micro-Lux is included for ENG requirements; 805-482-4820

Circle 158 on Free Info Card

Encoders



Dolby Laboratories Dolby Digital encoders: the DP561B multichannel encoder and the DP567 two-channel encoder both feature Dolby Digital (AC-3), the standard audio format for ATSC digital for television; Dolby's range of Dolby Surround units will enable digital broadcasting to get under way with two-channel Dolby Digital audio matrix-encoded for surround-sound playback on home systems equipped with Dolby Pro Logic decoding; 415-558-0200; fax 415-863-1373; info@dolby.com; www.dolby.com

Circle 159 on Free Info Card

HDTV Ancillary Data Encoder

Evertz Microsystems HD9570: provides a solution for high bit rate data handling requirements, such as closed captioning, source ID, time code, VITC and other METADATA application requirements for HDTV; 905-335-3700; fax 905-335-3573; sales@evertz.com; www.evertz.com

Circle 160 on Free Info Card

Video Storage Area Networking

Pathlight Technology ImageAGENT II: a key component in Video Storage Area Network (VSAN) solutions, ImageAGENT II integrates multiple storage and networking technologies into a single seamless solution for sharing digital media in a broadcast or video post-production facility; supports Ethernet, Fiber Channel, Serial Storage Architecture (SSA), SCSI, Mac OS, Windows, Windows NT and SGI; includes internal connections for RAID and offers 100MB/s sustainted guaranteed flow-through bandwidth; 607-266-4000; fax 607-266-4020; www.pathlight.com

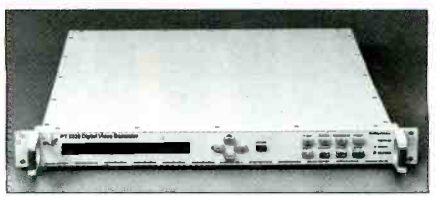
Circle 161 on Free Info Card

Digital Satellite Newsgathering Flyaway Package

Continental Microwave/RF Technology DSNG technology: field-proven digital satellite newsgathering technology with Flyaway packages; available with 1m, 1.5m and 2.2m antennas; single thread or redundant; at C, X, Ku and K band (or any combination), and feature a wide range of digital video and compressed analog video options; 203-866-4283; fax 203-853-3513

Circle 162 on Free Info Card

Digital Video Generator

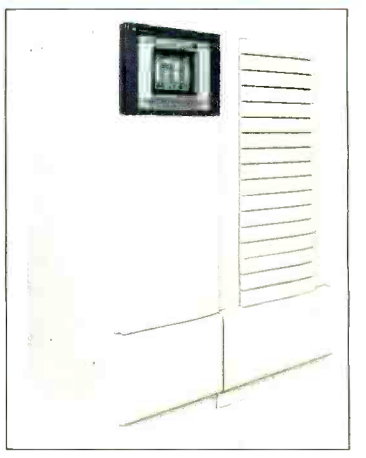


ProTeleVision PT 5230: is configured around a basic unit to which additional generator outputs can be added, making up to six SDI signals available simultaneously; digital audio signals are embedded in most available outputs; analog output module provides complex test patterns and test signals for analog domain; is also gen-lockable to a traditional black burst standard; 201-529-2188

Circle 163 on Free Info Card

Circle 40 on Free Info Card

Digital Solid-State UHF Transmitter



Harris DiamondCD: developed exclusively for digital television, this digital solid-state UHF transmitter includes many features to maximize coverage, performance and reliability; the highly distributed, redundant architecture includes "smart" PA modules with built-in protection, control and diagnostics; one switching power supply is provided for every two PA modules; 513-459-3400; fax 513-459-3890; hbd@harris.com. www.broadcast.harris.com

Circle 164 on Free Info Card

USR-100 Microprocessor Controlled UHF Wireless Microphone System

The Telex® USR-100 wireless microphone system is a powerful, microprocessor controlled system designed to offer the broadcaster involved with roving production situations and news gathering maximum frequency flexibility, sonic quality and aggressive pricing. With the availability of 100 channels, the USR-100 offers the broadcaster a problem solving wireless microphone solution to crowded airwaves. Microprocessor control allows the unique automatic self-tuning of exact factory set frequency information, enabling the full retention and recall of those settings. As most other designs implement a "wide band" approach allowing possible interference, the USR-100 maintains frequency specific accuracy, thereby minimizing interference. Dual Squelch is performed by a Tone Coded Squelch on a little used tone frequency of 31.250kHz coupled with an RSSI Amplitude Squelch. Microprocessor control also allows for efficient Pos-i-Phase Smart™ diversity implementation.

Circle 77 on Free Info Card

Radiocom™ Two-Channel Encrypted Digital UHF Wireless Intercom.

The powerful Telex® Radiocom™ BTR-600 Two-Channel Encrypted Digital and BTR-500 Two-Channel UHF Wireless Intercom systems are designed to meet the needs of any situation where mobility needs combine with communication needs. The BTR-600 is a full duplex wireless intercom system capable of addressing two independent channels of a wired intercom. Operating in the 524 to 608 MHz and 614 to 746 MHz frequency bands, the unit offers full frequency agility. The system integrates into any two-wire or four-wire Telex, RTS™ or other intercom system. The digital encryption scheme found on the BTR-600 offers a cipher code of 65,536 possible combinations ensuring interference free transmissions that cannot be intercepted. The BTR-500 is identical to the BTR-600, less the digital encryption system.

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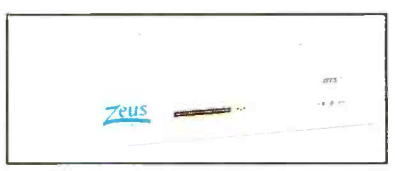

Zeus 2400 DSP Matrix Intercom System

The Telex RTS™ Zeus 2400 DSP Intercom system provides high quality audio, system flexibility, compact size and aggressive pricing. The system is aimed at broadcast and simulator situations, military and industrial applications, and auditorium and stadium installations. The RTS Zeus 2400 DSP Matrix intercom system, based on the highly regarded ADAM Advanced Digital Audio Matrix, is designed to deliver 24 channels of better than CD quality audio in a two rack unit package. The heart of the system is a TDM ASIC that performs all audio switching and mixing in the digital domain. The CD quality sample rate of 44.1kHz is enhanced by 20 bits of resolution yielding superior audio clarity. The TDM ASIC processes 45 bit word length, insuring full performance regardless of the number of users on a given path.

Circle 79 on Free Info Card

News Crews Nationwide Making the "Impossible" Live Shots Possible with Telex's Camlink II

The latest wireless video equipment is giving ENG crews across the country unprecedented freedom to cover the news without cables between the camera and truck while maintaining the highest possible video quality.

Cincinnati's WXIX-TV has been using two CamLink IIs primarily for its "19 in the Morning"show for several months. Paul Smith, assistant chief engineer at WXIX, notes that the unit's flexibility gives the station's cameramen the ability to roam that the competition does not.

"We wanted to lose the worry of always being tethered for a live broadcast,"says Paul Smith, assistant chief engineer at WXIX in Cincinnati. "Now, with the CamLink II, we can get a live remote going at a moment's notice and get as close to the scene as is safe and possible."

Smith says the CamLink II's ease of use, high-quality capabilities and affordable cost made it the clear choice for FOX 19, "We've had the CamLink II outside the studio's building and had the signal go through walls with nearly perfect video," says Smith. "We've also tested it using directional antennas and, with a clear path, we've had the signal travel a couple miles with very good reception. We are very happy with the CamLink II's capabilities and how it lets us shoot previously unattainable live video."

In Omaha, Nebraska, news crews at top-rated WOWT have found that once unattainable is now within their reach. "The CamLink II gives our cameramen the flexibility during bad weather situations and isolated terrain locations to get up close and deliver a high-quality live broadcast," explains Mike Plews, chief photographer for NBC-affiliate WOWT. "The quality is remarkably good. During coverage of a multiple vehicle accident recently, the CamLink II's signal path had to cross three lanes of highway where semi-trucks were constantly going by. The feed did not break-up or get disrupted at all. We were very impressed."

WOWT uses the CamLink II daily for three live shots for the four o'clock news. The CamLink II's receiver is rack-mounted in one of four of the station's ENG microwave trucks. Plews says the CamLink II's flexibility, range and overall broadcast quality, give WOWT a clear advantage over the competition.

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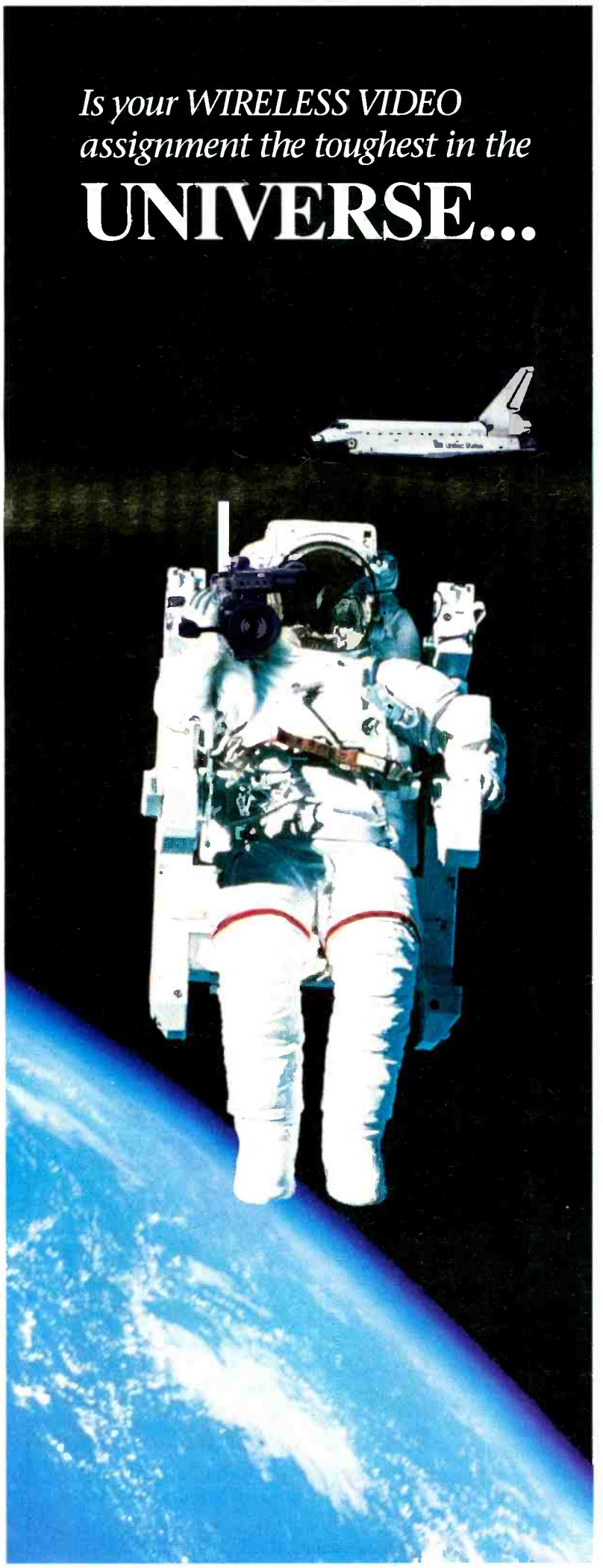

CamLink II™ WIRELESS VIDEO

Or is it more down to

EARTH?

EITHER WAY, DON'T BE TIED DOWN BY CABLES!

The CamLink II Wireless Video System is being used all over the planet to cover breaking news, sports, live events, and feature film production. Even spacewalking NASA and MIR astronauts who need to send broadcast-quality pictures back to their spacecrafts will use the CamLink II. You too can depend on CamLink II's reliability, stability and exclusive features:

- **Longest Ranges: from 100 yards to 5 miles and beyond**
- **Auto-Phase™ Triple Diversity for rock-solid video**
- **16 Synthesized Channels for maximum frequency agility**
- **Timecode and Tally transmission create Instant Window Dubs™**

Use CamLink II and put your newscasts and video productions "worlds above" the competition.

For more information on CamLink II or its use by NASA in space, call 1-612-884-4051 or e-mail us at camlink@telex.com or visit our web site at www.telex.com.

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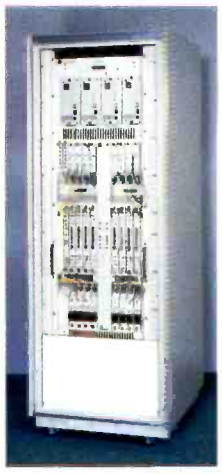
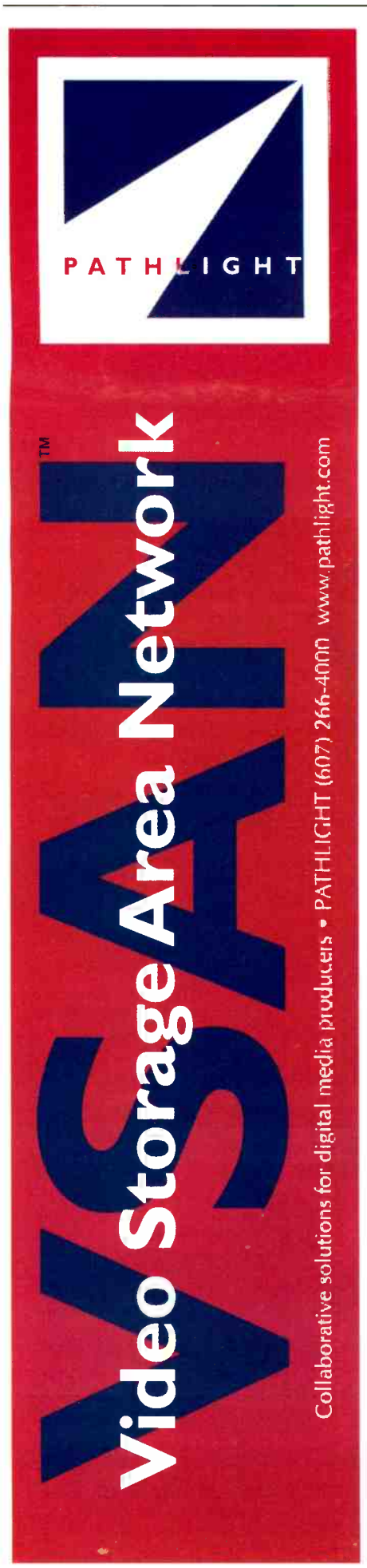
Digital Fiber-Optic Transmission Platform



ADC Broadband Communications DV6000: this multichannel platform now supports 8-VSB modulated services, as well as a variety of video and data service interfaces; the DV6000 can transport up to 16 separate 8-VSB modulated channels directly at TV IF, allowing modulation equipment to remain within the studio; an option to transport a single 8-VSB IF channel over a fiber-optic cable is also available; 203-630-5700; fax 203-630-5701

Circle 165 on Free Info Card



Circle 42 on Free Info Card

Wireless Intercom Systems

Telex Radiocom BTR-600 and BTR-500: the BTR-600 is a full-duplex, two-channel encrypted digital system featuring a UHF transmitting belt pack and receiving base station; it addresses two independent channels of a wired intercom from the base station; the system operates in the 524MHz to 608MHz and 614MHz to 746MHz frequency bands and integrates into any two-wire or four-wire Telex, RTS or other intercom system; the digital encryption scheme offers a cipher code of 65,536 possible combinations; the BTR-500 is identical to the BTR-600 without the digital encryption system; 612-884-4051; fax 612-884-0043

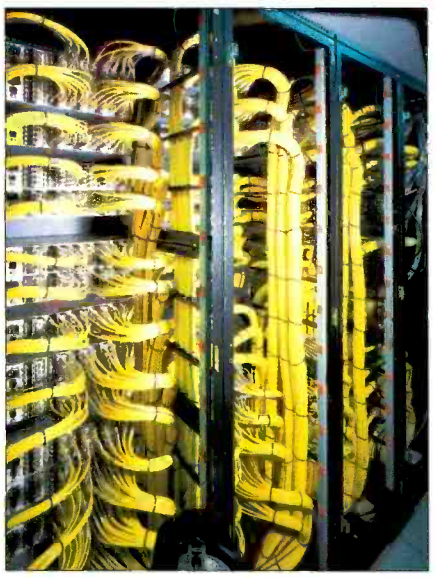
Circle 166 on Free Info Card

Component Digital/Analog Video Mixer, D-1-to-Analog Converter

Video GainesVille MightyMix, MightyCoder: the MightyMix eight-input mixer is integrated into a one-piece package measuring only 17"Wx13.5"Dx5.8"H; a preprogrammed DVE option adds 100 ready-to-use 3-D effects; the MightyCoder D-1-to-analog converter measures 4.2"x3"x1.25" and weighs less than eight ounces without power supply; 352-372-0270; fax 352-378-5320

Circle 167 on Free Info Card

Lighting Equipment



Blaine Lentz Lighting Associates ProLens, ProMic, ProBaby: the ProLens shade eliminates the need for flare compensation and continuous riding of black levels by providing maximum flare protection at every focal length and on every box type lens; the ProMic components for mounting effects mics can be used on all flat and round surfaces, ranging from hard camera lenses to padded stadium railings and gang poles; 818-887-7148; fax 818-887-4472; Tvlights@worldnet.att.net

Circle 168 on Free Info Card

File Server Station

Winsted: LRx series: a modular series of file server stations featuring steel, L-Frame architecture; components can be mixed and matched and each system includes smooth rolling wheels; the basic L-frame comes with a stationary server shelf for multiple servers or a pullout server shelf for individual servers; the sliding server shelves have optional retractable cable lacing guides to help keep cables in place while the server is pulled out; pull-out keyboard shelves, deep enough to hold three keyboards, come in flat or tiered versions; 800-559-6691 or 612-944-9050; fax 612-944-1546; www.winsted.com; racks@winsted.com

Circle 169 on Free Info Card

Weather Graphics System

AccuWeather Ultra Graphix version 2.05: this weather graphics workstation integrates customized maps, comprehensive weather information and animated icons on the same screen while rendering all images in full 3-D perspective; it also allows users to convert from 2-D to 3-D perspective with a click of the mouse; the new system can quickly animate storm tracks, such as hurricanes, with the new Animatrak rendering; in addition, it has the ability to edit and save weather modeling data, as well as render the data into ready-to-air graphics; 800-566-6606 or 814-237-0309; fax 800-683-6329; www.accuweather.com; info@accuwx.com

Circle 170 on Free Info Card

Video Delivery System

LEL Computer Systems Video Pipeline-2: this system delivers MPEG-2-quality video and audio over T1, E1, RS-422, Ethernet (MAC or IP Multicast Packets), ATM and V.35 at bit rates of 3Mb/s to 8Mb/s; the highest-quality compressed video can be used for cable distribution, teleconferencing, distance learning and security; DVB-compliant equipment can also be used; 561-347-2242; fax 561-347-6276

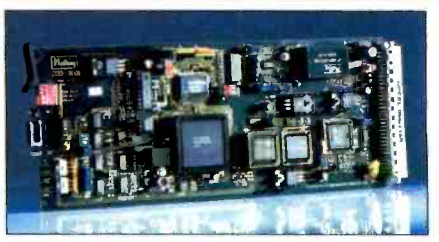
Circle 171 on Free Info Card

Mini Disk Recorder

Otari MR-30: a professional, convenient and cost-effective digital recorder that uses commercially available MiniDiscs; it provides various recording, editing and playback functions for broadcast, post-production and sound reinforcement; features include 148 track minutes per MiniDisc, AES/EBU and SPDIF inputs, basic editing with multiple layers of undo and instant playback of selected tracks; 650-341-5900; fax 650-341-7200

Circle 172 on Free Info Card

NTSC/PAL Decoder



Television Equipment Associates CDD-3101: Matthey Electronics has a single-card, the CDD-3101, that offers high-quality three-line adaptive comb filter decoding, with 10-bit internal processing; composite analog signals are converted from NTSC/PAL directly into serial digital component 4:2:2 format; for better distribution, the Matthey decoder has four serial D-1 outputs; 914-763-8893; fax 914-763-9158

Circle 173 on Free Info Card

Aspect Ratio Converter

Axon Digital Design ARC2000: the product line of two-way aspect ratio converters is designed for conversion from 4:3 to 16:9 and back, including pan scan, letterbox and pillarbox; high-quality vertical filtering is reached by using a temporal (3 fields) 12 lines FIR filter; inputs and outputs are SDI, 10-bit serial digital video (270Mb); 888-919-9379 or 212-265-6865; fax 212-265-6402; www.axon.nl; ncocny@mindspring.com

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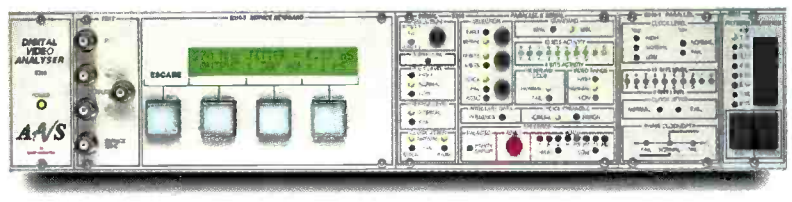
VIDEO Testing

Sencore covers all your needs!

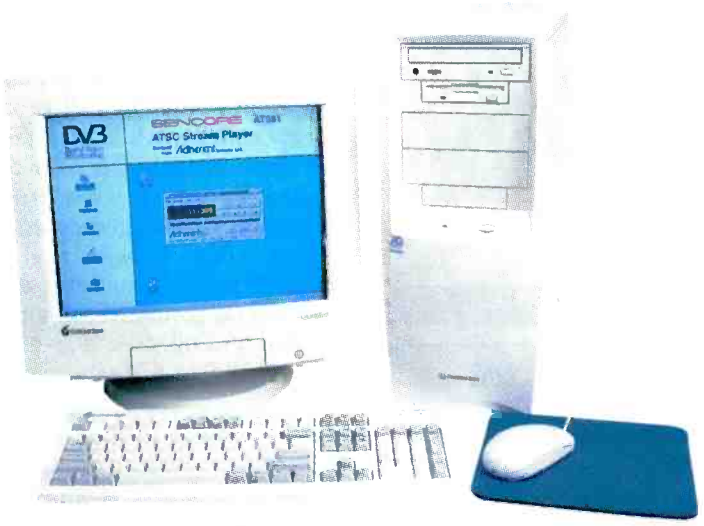
DSA309 Digital Video Studio Analyser

- Tests composite and component serial digital video signals.
- Continuous on-line monitoring of key parameters.
- Graphic touch screen interface and menu system.
- Errors displayed on the LCD screen, or routed to a printer or stored on the built-in 3.5" floppy drive.
- Real-time detection of illegal colors.



S310 Digital Video Analyser

- Tests composite and component serial or parallel digital video signals.
- Direct readout key signal parameters.
- User selectable alarm thresholds.
- A comprehensive CCIR601 pattern generator. (34 different test patterns.)



AT951 ATSC Stream Player

- Single play or continuously looped playout of ATSC or DVB signals.
- Adjustable playout start and stop points.
- Automatic determination of Transport Stream playout rate.
- Internally generated or external source of playback clock.
- 188 byte packet formats.

SV953P MPEG-2 Portable Transport Stream Analyzer

- Record, playout, monitor and analyze MPEG-2 and DVB signals.
- Conformance test TS layer and PES layer.
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- Real-time monitoring of MPEG-2 for complete signal analysis.
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Videocassettes

Quantegy Betacam SP: BSP is specifically designed for the picture-perfect performance required for critical applications; it provides excellent picture and audio reproduction for professional ENG/EFP and studio applications; manufactured under stringent quality controls, the videocassettes feature ultrafine metal particle and dimensionally stabilized polyester backing that prevents skew errors and maintains low dropout rates; 800-752-0732 or 770-486-2800; fax 800-628-0535

Circle 175 on Free Info Card

Digital Console

Solid State Logic Aysis Air: this 48-channel digital console incorporates its own router for stand-alone operations but can be extended to use SSL's hub router to provide access to more than 2,000 sources and destinations; the system offers reduced wiring complexity with 95 channels of digital audio on a single coaxial cable; a dedicated control surface is optimized for real-time mixing operations, and all console controls are fully automated via snapshots; all settings can be stored and instantly recalled selectively or globally; 212-315-1111; fax 212-315-0251; www.solid-state-logic.com

Circle 176 on Free Info Card

High-Definition Portable Camera

Panasonic AK-HC800: the AK-HC800 is a portable companion to the AK-HC850 high-definition studio camera; featuring three $^{2}/_{3}$-inch 2,000,000-pixel M-FIT CCD imagers, this high-definition camera delivers the full high-definition bandwidth of 1,000 TV lines of resolution and uses serial digital fiber-optic cable link to transfer RGB 4:4:4 data at 2.2 Gb/s from the camera head to the CCU; the unit also has parallel 1125-line HD and 525 interlace outputs; 201-392-6176; fax 201-392-6558; www.panasonic.com/pbds

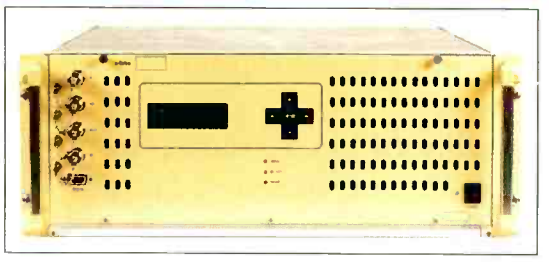
Circle 181 on Free Info Card

Multiformat Onscreen Monitor Family

Videotek VTM-200: this family of products provides a revolutionary means in which to monitor and measure 601 and AES digital and composite analog (NTSC and PAL) video and audio signals for less than half the cost of traditional methods; the primary output is SVGA compatible for display on any standard computer monitor; 610-327-2292; fax 610-327-9295; www.videotek.com; sales@videotek

Circle 182 on Free Info Card

8VSB Modulator/Exciter



Itelco DTV (8VSB) modulator/exciter: this product features excellent performance fully compliant to 8VSB ATSC DTV standard and upconverter to VHF B.III or UHF B.IV.V; it has a modular plug-in design with compact dimensions; +39 763 316231; +39 763- 316239

Circle 177 on Free Info Card

HDTV Full Digital Camera

Ikegami HDK-790: a top-of-the-line full digital HDTV studio camera for broadcast use, featuring three $^{2}/_{3}$-inch CCD image sensors each with 2,000,000 pixels; with a downconverter built into its CCU, the HDK-790 supports not only traditional NTSC broadcasting, but also HDTV; it also incorporates newly developed digital processing ICs to implement all-digital image processing and the camera achieves full-digital HDTV implementation, boasting a wide variety of digital specific features and functions; 201-368-9171; fax 201-569-1626

Circle 178 on Free Info Card

HDTV Digital Signal Generator

Leader Instruments LT 440D: a test signal generator that operates in the 1125/59.94 HDTV system and complies with BTA S-004A, S-005A, S-006A and SMPTE 229M, 291M and 292M; it incorporates serial digital outputs of standard and dedicated test signals that include the pathological check field including embedded four-channel AES/EBU audio test tones; a dedicated digital audio output feed is also provided; 800-645-5104 or 516-231-6900; fax 516-231-5295

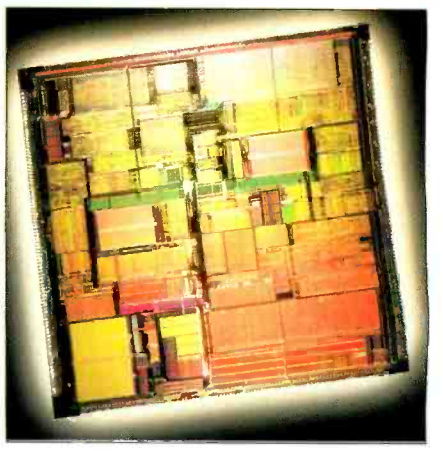
Circle 179 on Free Info Card

ISDN Codec/Recorder/Editor

NAGRA C-PP: this unit is universally powered from 94VAC to 264VAC, 48Hz to 63Hz mains; the C-PP can be used for recording, playing and virtual editing of digital audio files using PC card FLASH memory technology as the storage media; the codec communicates using the MPEG (Layer II), G.722 and G.711 compression systems via international ISDN protocols, US National 1 and EURO-ISDN; the unit can be programmed to automatically receive and record files on removable FLASH memory PC cards and play pre-selected files each time a call is received; replacing the RJ45 telephone connection with a SMPTE/EBU time-code connector transforms the C-PP into a TV/cinema post-production playback unit; 615-726-5191; 800-813-1663; fax 615-726-5189; mail@nagra.com

Circle 180 on Free Info Card

MPEG Encoding Products



C-Cube DVxpert single-chip MPEG-2 encoder family: the DVxpert 5110 is a single-chip MPEG-2 Main Level @ Main Profile broadcast encoder; it provides special features designed to optimize multichannel broadcast applications, while maintaining the highest image quality for the viewer; the DVxpert 6210 is a professional encoder that can compress images into MPEG-2 Main-Level @ 4:2:2 or MPEG-2 Main Level @ Main Profile; it handles 4:2:2 video streams from 6 to 60Mb/s; 408-490-6300; fax 408-944-6314; www.c-cube.com

Circle 183 on Free Info Card

Program Encoder

DiviCom MediaView MV40: this encoder is based on C-Cubes' MPEG-2DVx platform and delivers increased channel count and improved video quality; the MV40's design harnesses the power of two complete compression/decompression silicon engines to analyze and encode program data, then perform a more refined yet similar operation again using data from the first operation; it can also maintain picture quality at extremely low bit rates, offering TV service providers more flexibility in allocating program bandwidth; switchable 4:2:0 and 4:2:2 formats, and DVB and ATSC compliance; 408-944-6700; fax 408-944-6705; www.divi.com

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- Digital Graticule Generator for Safe Area/Title and Masking
- Telecine Keyer
- Vista Vision and large Film Format Support (70mm and 65mm)
- Support for decrementing Keykode numbers
- Automated logging of print daily rolls
- On Air Digital Closed Caption Encoder (internal modem, v-chip support, power failure by-pass)
- HDTV Closed Caption Encoder
- Digital downstream keyer
- GPS referenced Time code Generator
- EBU-SMPTE Time code Converter
- HDTV Graticule Generator/Masker
- New Modular Platform for SDTV & HDTV
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Circle (33) on Free Info Card

Digital Video Routing Switchers

Datatek D-2800 high density series: a high-density series of digital video routing switchers for medium-to-large systems, and for all standards to 360Mb/s; the series features a 128x128 digital video matrix in 11 rack units, 192x192 in 22 rack units and 256x256 in 44 rack units; this high-density series uses the same control system as the D-2800 series of digital and analog video and audio routers; 800-882-9100 or 908-654-8100; fax 908-232-6381

Circle 185 on Free Info Card

High-Performance Video Modulator and Demodulator

EFData Corporation (a division of California Microwave) SDM-2020: a high-performance video modulator and demodulator designed specifically for high-speed satellite transmission; ideal applications include DVB, DSNG, primary and backhaul transmission for contribution, distribution and HDTV; it operates in one-bit steps from 1Mb/s to 100Mb/s; 602-968-0447; fax 602-921-9012; www.efdata.com/index.html

Circle 186 on Free Info Card

Digital Video Mixer with 3-D DVE Effects

FOR-A VPS-400D/DP: a serial digital component I/O video mixer with DTV operation; it includes a built-in floppy disk drive to upload/download operational data and multiple add-on features are available, including real 3-D DVE effects, chroma-key, tally out, analog composite outputs (program/preview), LAN 10BASE-T interface; 714-894-3311; fax 714-894-5399; forascb@aol.com

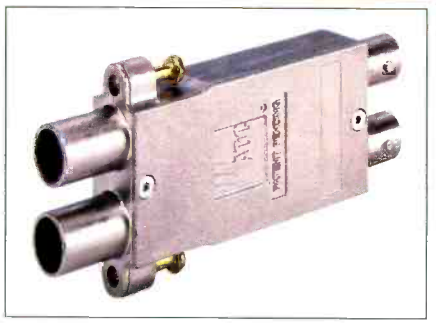
Circle 187 on Free Info Card

Cables for HDTV Broadcast Applications

Belden 7731A digital video coax: intended for internal studio use, this RG-11/U-type coaxial cable meets the SMPTE 292M standard for bit-serial digital interface for HDTV systems; this high-performance cable is designed to support cable runs up to 500 feet, making it ideal for the long-haul infrastructure, between room and interfacility, in broadcasting studios and post-production facilities; 800-BELDEN-4 or 847-818-1880; fax 847-818-1886

Circle 188 on Free Info Card

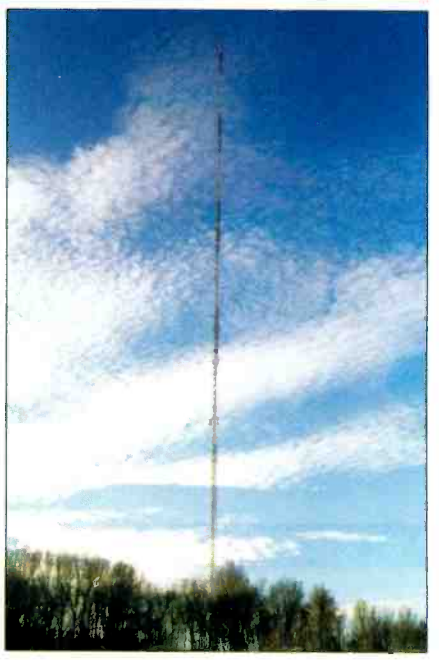
Video Jacks



ADC Telecommunications Super Video Jack Family: the performance of these video jacks is matched for data rates up to and including HDTV in the full uncompressed 1.485Gb/s rate; the standard-size SVJ-2 can handle bandwidths up to 2.4GHz; the midsize MVJ-3 can go to 3GHz and beyond; 612-938-8080; fax 612-946-3292; www.adc.com

Circle 189 on Free Info Card

HDTV Analysis



Central Tower HDTV analysis: Central Tower is offering HDTV analysis and tower inspections on your existing structures to determine HDTV readiness, in addition to full-service site planning, manufacturing and installation; 800-664-8222 or 812-853-0595; fax 812-853-6652; www.centraltower.com

Circle 190 on Free Info Card

Still-Store

Miles M25 Not-So-Still-Store: featuring a radical architecture, this product allows real-time multilayer compositing of SDI stills, logos and animated clips; two stored images with keys and an external fill and key input can be composited over a live video background in real time; these capabilities are duplicated on a second channel to allow true look-ahead preview and rehearse; a wipe generator provides frame comparison in telecine use or mixer/switcher functions when used in a broadcast presentation environment; the M25 enables instant grab of stills or animations, including keys, while on air; the 160-frame video RAM cache allows instant recall of pre-selected images and an internal hard disk and PCMCIA memory card provides non-volatile bulk storage; +44 (0) 1635 552 524; fax +44 (0) 1635 552 858

Circle 191 on Free Info Card

Robotic Rail Track

Radamec robotic rail track system: provides broadcast-quality movement for on-air camera shots; supports Radamec 421 and 435S pan and tilt heads; easy to operate; configurable with any Radamec control panels; +44 (0) 1932 561181; fax +44 (0) 1932 568836; radamec_broadcast@lineone.net

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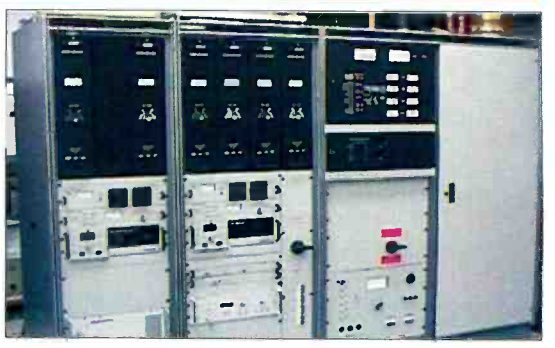
Circle 34 on Free Info Card

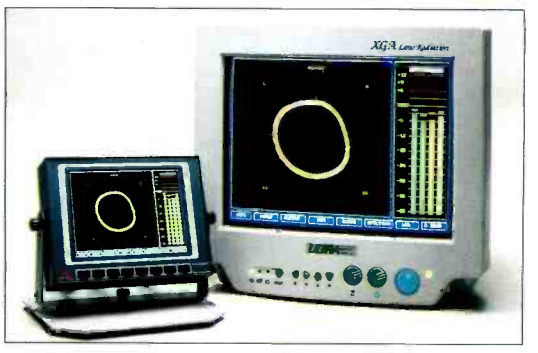
Adjacent-Channel Technology



Acrodyne Adjacent-Channel Technology (ACT): ACT allows you to pass adjacent digital and analog signals through a single high-power amplifier; Diacrode and advanced tetrodes can be tuned to 12MHz, the bandwidth required for two channels; Acrodyne's booth will feature an ongoing over-the-air demonstration of an ACT transmission broadcast in analog and digital from KBLR-TV in Las Vegas; 215-542-7000; fax 215-540-5837; acrodyne@pond.com; www.acrodyne.com

Circle 193 on Free Info Card

Four-Channel Master Stereo Display



DK-Audio MSD600C/MKII: this upgrade has been redesigned to fit an improved VGA color display; the color LCD display offers a brighter image with double backlights and a contrast ratio improved by 100%; new features include the ability to drive an external monitor and a surround-sound option that allows users to monitor the surround-sound information on the screen; because a pseudo-surround-sound decoder is built in, an external decoder is not needed; other features are analog and digital (AES/EBU) operation, phase meter, audio vector oscilloscope and level meter with seven different scales and optional FFT spectrum analysis; 45-44-53-02-55; fax 45-44-53-03-67; DK-Audio@dk-audio.dk; www.dk-audio.dk

Circle 194 on Free Info Card

HAMLET

EXCELLENCE IN VISION

Which are the ONLY devices in the world to Digitally analyse both Digital video and audio plus Analog video and audio in one unit?

The Answer:

Monitor Scope™ 601

and Digi Scope™ 601

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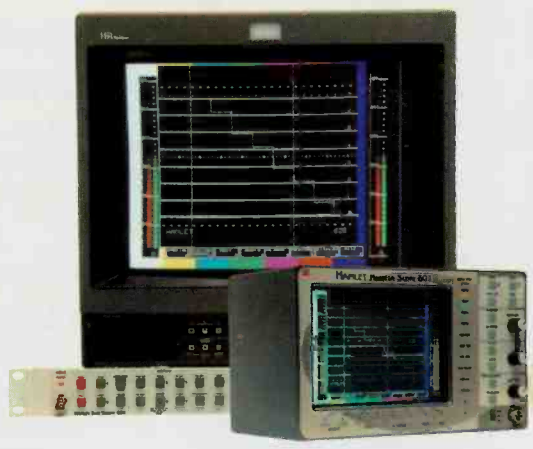
- Vertical, Horizontal and Vector cursor measurements.
- Outputs may be displayed on any monitor, digital or analog.
- Remote Control, data and trace transfer via RS232/modem.
- Selectable clean feed AtoD and DtoA outputs from the inputs.
- All digital 10 bit processing, NO internal adjustments and a Modular Upgrade path into the next millennium and more....

So who are clearly the winners?

Hamlet users!



Y1999, Y2K and leap year proof

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James Grunder and Associates Inc., 14563 West 96th Terrace, Lenexa, Kansas 66215, USA
Tel: 001 913 492 4666 Fax: 001 913 895 7496
Email: patm@grunder.com.

Circle (21) on Free Info Card

A-to-D Converter System

Benchmark Media Systems ADA2008: a bidirectional four-channel, 20-bit converter system that is ideal for VTRs and routing switchers; it has four channels of analog-to-digital conversion, four channels of digital-to-analog conversion, an internal power supply and a 1RU chassis; 800-262-4675 or 315-437-6300; www.benchmarkmedia.com

Circle 195 on Free Info Card

Miniature Encoders/Decoders and Converters

Miranda Technologies picoLink: this series of micro products offers a variety of stand-alone interfacing options, including component or composite analog to 4:2:2 decoder, S-Video to 4:2:2 decoder, composite to CAV or S-Video decoder and ARC, and composite aspect ratio converter; 514-333-1772; fax 514-333-9828; www.miranda.com

Circle 196 on Free Info Card

Two-Channel UHF System

Nady Systems Platinum 802 series: this two-channel UHF system offers professional features and DigiTRU Diversity, packaged in a system costing less than many single-channel UHF systems; it consists of an ultracompact rack-mountable receiver with dual front-mounted antennas, adjustable line "1/4" and fix mic level XLR outputs; it also features a full range of transmitter options, including durable hand-held, lavalier, instrument and head mics; 510-652-2411; fax 510-652-5075; www.nadywireless.com

Circle 197 on Free Info Card

Signal Management System

Telect VersaFrame 2000 modules: new modules for the VersaFrame 2000, a modular frame for analog and digital audio and video signal management, dock within the VersaFrame and include a YC (S-VHS) video distribution amplifier, a YC (S-VHS) 8x8 routing switcher and a video waveform/color bar generator with a built-in 4x1 routing switcher; the Mini VersaFrame for smaller routing and distribution applications is also available; 800-551-4567 or 509-926-6000; fax 509-926-8915; www.telect.com; getinfo@telect.com

Circle 198 on Free Info Card

Software for Sphere Non-Linear Systems

Scitex Digital video SPORT: this software provides for fast and easy creation of sports highlight packages; during live recording from a feed, the Sphere operator can set a mark while play is under way and SPORT will create a clip with user-designated handles that capture the beginning and end of the play; 410-783-0600; fax 410-783-0606

Circle 199 on Free Info Card

Portable Lighting Systems

Kino Flo UL-approved lighting: UL safety lighting for portable fluorescent fixtures; system meets new UL safety standards for patented Kino Flo fluorescent designs; 818-767-7517; fax 818-767-7517; kinoflo@aol.com

Circle 200 on Free Info Card

Fibre Channel Storage

Storage Concepts Fiberaid: these network switched Fibre Channel storage solutions are for multiple video applications at 100MB/s; host platforms supported include SGI Impact, 02, Octane, Onyx, Challenge, PCI and Mac; 714-852-8511; fax 714-852-8930

Circle 201 on Free Info Card

Photographer's Vest

Porta-Brace video vest: this vest for ENG and EFP photographers consists of a soft inner layer and an outer layer made of a mid-weight Cordura fabric that is durable and waterproof; pockets are included for batteries, tapes, tools, secure passport and wallet, pens, rain slicker, ID, lunch and a cigar; adjustable side tabs allow extra room over sweaters; side zippers provide extra freedom; 802-442-8171; fax 802-442-9118

Circle 202 on Free Info Card

Fibre Channel Disk Array

DataDirect Networks Aria: this product features 200MB/s, full-duplex point-to-point throughput and GaAs LRCs for on-the-fly hot-swapping of drive modules; it can offer up to 72GB per enclosure with daisy-chaining and supports 7,200RPM Barracuda and 10,000RPM Cheetah Fibre Channel drive modules; features include an active low-noise Fibre Channel backplane, software-based RAID data striping and mirroring and the ability to support up to 126 devices on a single loop or 16 million devices in a switched fabric; users can select an optional built-in four-port hub; 818-700-7600; fax 818-700-7601; www.datadirectnet.com

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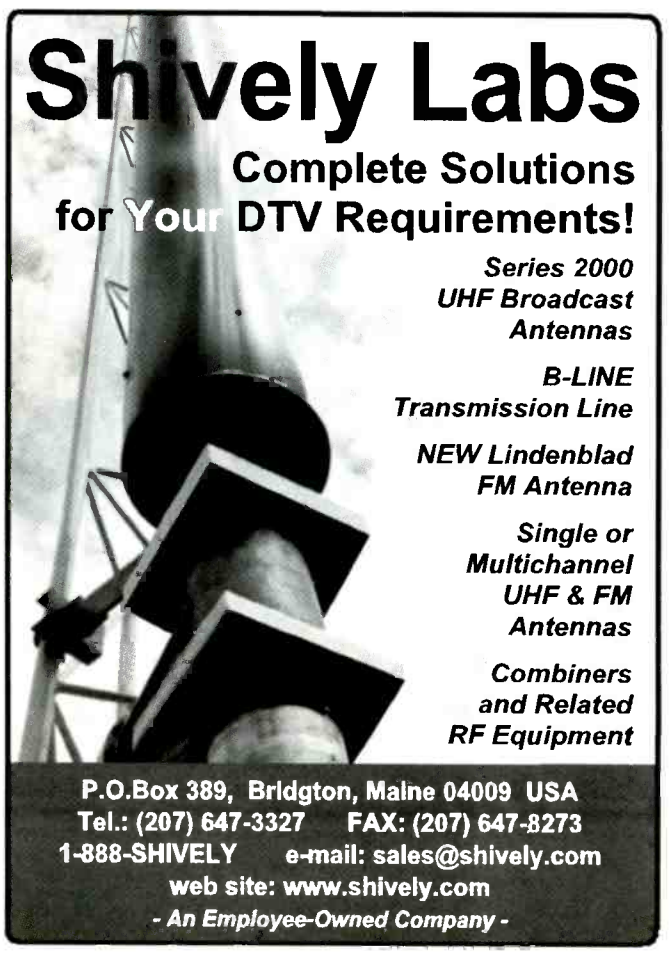

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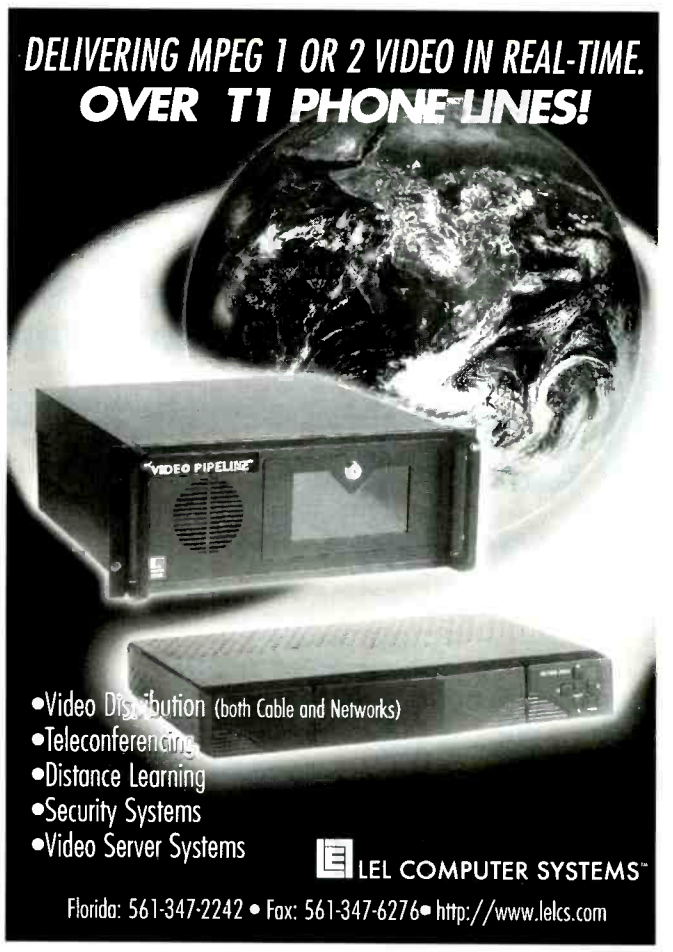

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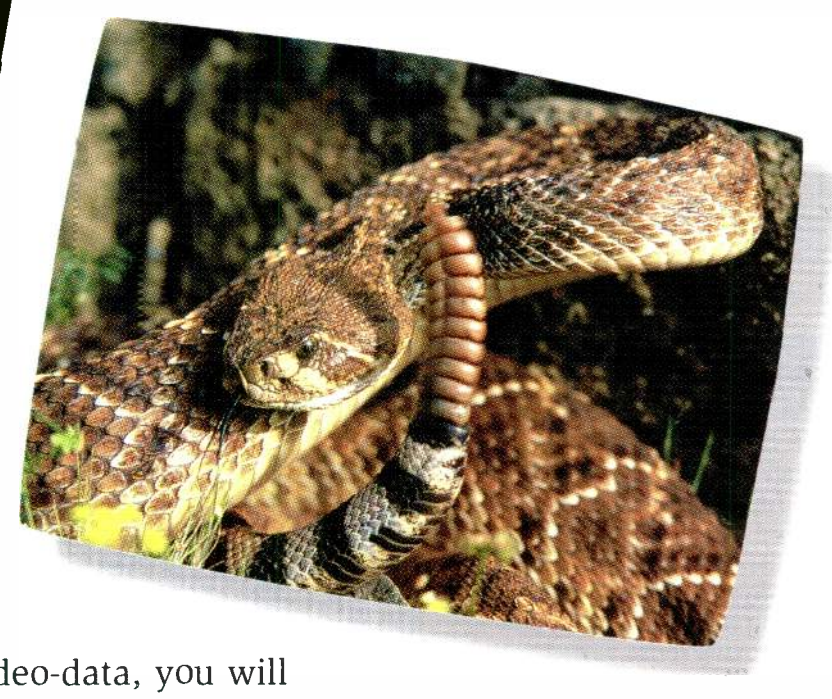
You've got 20 seconds to find the spot with the rattle!



Visually search your digital archive without leaving your desk.

Winds of change are blowing through the broadcast industry. In a world of compressed video-data, you will be challenged to stay in touch with your digital assets. Fortunately, there is an answer. The new **Bowser™ Visual Asset Manager** from Odetics Broadcast.

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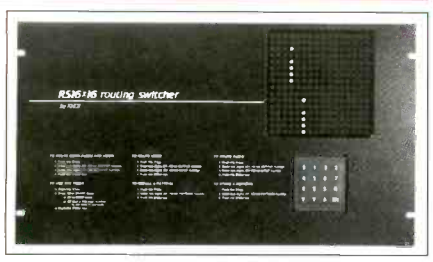
Circle (24) on Free Info Card

Desktop Video Rack

MetaWave MW12: this rack is a space-saving case that holds two MW series signal processing boards and is designed for use in desktop video and other applications where space is restricted; the unit can accommodate MW audio and video converters, as well as audio embedders/extractors; 44-1635-299000; fax 44-1635-299299; info@metawave.co.uk; www.metawave.co.uk

Circle 204 on Free Info Card

Routing Switcher



Knox Video RS16x16, RS16x16BAL: these full-matrix routing switchers are housed in an ultrathin chassis and offer maximum video bandwidth to 200MHz; the balanced audio headroom is greater than 18dB and plug-in Phoenix connectors are used for balanced stereo audio; 301-840-5805; fax 301-840-2946; www.knoxvideo.com

Circle 205 on Free Info Card

Portable Dual Domain Audio/Interface Analyzer

Audio Precision Portable One Dual Domain: the newest addition to the Portable One family of audio analyzers, the product features a complete complement of digital interface testing and monitoring functions, including jitter generation and measurement, audio bit error rate, sample rate measurement and other interface functions; the new analog + digital + interface tester generates and measures analog and digital audio signals in their native domain; 800-231-7350 or 503-627-0832; fax 503-641-8906

Circle 208 on Free Info Card

MPEG-2 Encoding System

Vela Research Argus 3.0: a Windows NT-based MPEG-2 encoder system designed for a broad range of professional applications that require broadcast-quality digital video; Argus has an extensive range of encoding capabilities for multimedia applications, as well as high-quality broadcast applications like digital ad insertion and video-on-demand; new features include variable bit rate encoding, caching FTP, improved API and inverse telecine; 813-572-1230; fax 813-573-2508; www.vela.com

Circle 206 on Free Info Card

Editing System

Leitch (ASC) NEWSFlash news editing system: uses shared storage for simultaneous recording and playback on both channels; shares a common Fibre Channel arbitrated loop technology; can record satellite feeds, edit news stories and play directly to air; 818-843-7004; fax 818-842-8945

Circle 209 on Free Info Card

Triax/Coax Camera Control System

Telemetrics TM9660: a triax/coax camera control system with newly designed adapters and added features; the CE-approved TM9660 is designed with component transmission to interface directly to digital converters; it can also connect directly to Telemetrics pan/tilt mechanisms for complete CCU functions, along with robotic functions over a single triax or coax cable; 201-848-9818; fax 201-848-9819

Circle 211 on Free Info Card

Videotape Cleaning and Evaluation for DVCPRO Cassettes

RTI/Research Technology International TapeChek TC 5100: this products lets you confidently recycle your videotapes quickly and easily; the TapeChek cleans and polishes the tape surface, removing loose particles and dust; a high-resolution defect detector locates tape damage preventing avoidable tape failure; a tape information display shows tape length in minutes and the number and location of any physical defects; the unit recycles a two-hour tape in as little as three minutes; 800-323-7520 or 847-677-3000; fax 800-784-6733 or 847-677-1311; www.rtico.com; TapeChek@rtico.co

Circle 207 on Free Info Card

Video Interface For O²

Ensemble Designs Carbon analog I/O for SGI O²: provides analog video and key interface for Silicon Graphics' O²; Carbon is great for those using O² with a beta deck or other analog gear for graphics applications; provides full 10-bit processing; 530-478-1830; fax 530-478-1832; www.ensembledesigns.com

Circle 210 on Free Info Card

Telephone Interface

Clear-Com TEL-14: this two-line, auto-nulling telephone interface for the Matrix Plus digital intercom systems allows up to 16 separate phone lines to be interfaced in three rack spaces; the unit can also be mixed with any of the other available interface cards in the frame; the interface automatically nulls at the beginning of the first telephone call, establishing the best possible connection between the matrix system and the outside line; from then on, it will undetectably null and echo cancel in the background; 510-527-6666; fax 510-527-6699; www.clearcom.com

Circle 212 on Free Info Card

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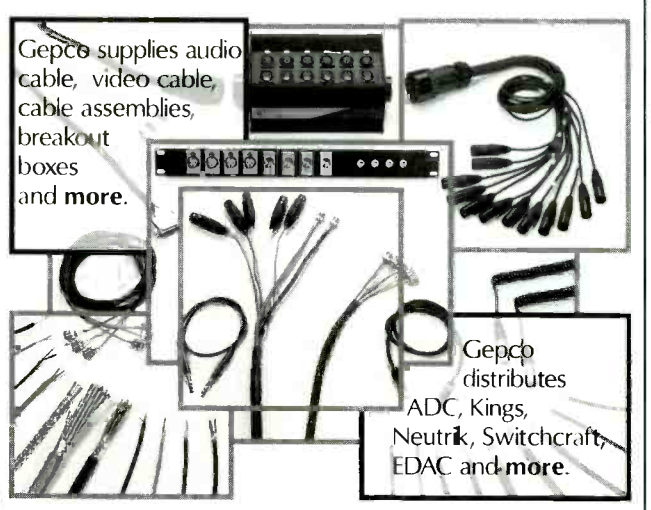
Cabling Solutions from Gepco



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Castle Transmission International

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First in Analogue
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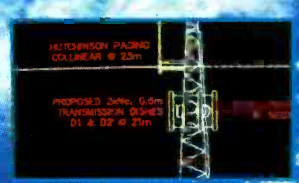
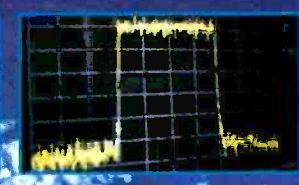


Digital Radio

Wireless Infrastructure



Transmission Site Development and Management

More than two decades of comprehensive experience in design and specification of digital systems for the broadcast and communications industries places Castle Transmission International at the leading edge of digital developments.

CTI is building nationwide digital television networks for the BBC and BDE and a digital radio network for the BBC, breaking new ground in the UK and worldwide.

Don't miss us at NAB LVCC, booth 10984.

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PO Box 98 Warwick CV34 6TN UK
Telephone +44 (0) 1926 417 6504
Facsimile +44 (0) 1926 417 6018
Web http://www.ctx.com
email info@ctxi.com

Castle Transmission International

Circle (14) on Free Info Card

Matrix Switchers

Extron CrossPoint 1616 series: these RGBS/RGBHV 16x16 matrix switchers deliver 200MHz (-3dB) video bandwidth when fully loaded; inputs and outputs are isolated and buffered, allowing any single input or combination of inputs to be switched to any outputs with virtually no crosstalk; two models switch RGBHV and two switch RGBS; two of the models include two-channel, stereo audio; 714-491-1500; 800-633-9876; fax 714-491-1517

Circle 213 on Free Info Card

Video Disk Recorder

MountainGate CentraVision 6200 VDR: VDRs based on Fibre Channel network attached storage; when used in conjunction with the CentraVision file system, the VDRs allow shared access to the recorded media; with the CV6200, storage can be expanded as needed to more than 40 hours uncompressed; the CV6200 features similar VTR-like control from the front panel, eight- and 10-bit support and support for CCIR 601, 525 and 625 inputs and outputs, as well as analog composite inputs; 702-851-9393; 800-556-0222; fax 702-851-5533; www.mountaingate.com

Circle 214 on Free Info Card

radio SYSTEMS
MILLENIUM

Available in 6, 12, 18, and 24 channel sizes, Millenium consoles all feature 3 output buses, complete remote control and metering. All consoles make extensive use of VCA technology and electronic switching.

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Circle 16 on Free Info Card

Triaxial Camera Connectors

ADC Telecommunications ProAx line: easy-to-terminate connectors with innovative features such as field repairable center conductors that eliminate the need to restrip, on-site gender reversal, O rings that provide superior sealing against moisture, fewer parts to assemble and compatibility with the tooling you already own; it is available off the shelf; 612-938-8080; fax 612-946-3292; www.adc.com

Circle 215 on Free Info Card

All-Format Digital Editing System

FAST Electronic U.S. blue: this turnkey system operates under MPEG-2 (4:2:2p@ML); every in, any out format allows editors to use any digital or analog video format on the same system at the same time; data can be transferred via SDI, IEEE 1394 or QSDI interfaces; edits all video formats with no degradation by keeping the signal in its native digital state; offers 10-bit uncompressed component video and 20-bit digital audio; 650-295-3500; fax 650-345-3447; www.fastmultimedia.com

Circle 216 on Free Info Card

Automated Live TV Production with One-Person Crew

ParkerVision PVTV: an automated live and live-to-tape production environment where one person can simultaneously orchestrate multiple cameras, switch video, mix audio, key graphics, control VTRs and scroll scripts; at the heart of the PVTV, is CameraManSTUDIO, a fully automated live and live-to-tape production system; 904-737-1367; fax 904-731-0958; www.parkervision.com; parkerv@jaxnet.com

Circle 217 on Free Info Card

Editing, Visual Effects and Graphics Creation and Playback Systems

Discreet Logic FIRE-HD, INFERNO, FROST: new and enhanced versions of products include the FIRE-HD on-line non-linear, non-compressed editing system designed for the high-bandwidth requirements of HDTV; the INFERNO resolution-independent visual effects system, which offers a new film tools module; the FROST 3-D broadcast graphics creation and playback system is designed for over-the-shoulders, full-screen graphics, titling and DVE effects; FROST, which will be demonstrated on the Silicon Graphics OCTANE, offering a most cost-effective solution for broadcasters, is upgradeable to the VAPOUR virtual studio software; 514-393-1616; fax 514-393-0110; info@discreet.com; www.discreet.com

Circle 218 on Free Info Card

Digital Production Consoles

Soundtracs DPC-II, Virtua version 2.0: the DPC-II totally digital system consists of a modular work surface and dedicated racks for analog/digital conversion; work surface frames provide 16 to 96 100mm moving fader control; all sizes support 160 channels and up to 224 audio interfaces; each block of 16 channels can have its own touch-sensitive LCD color display; the stand-alone Virtua 48-channel mixer features four-band fully parametric EQ, compressors and gates on every channel, eight auxiliaries and 24 tape outputs; 16 return inputs are configured as eight stereos with level, balance, mute and master output only; 48 full inputs comprise 32 analog mic/lines and 16 digital inputs; the 32 analog inputs are individual remotely switchable between mic and line connectors; 516-333-9100; fax 516-333-9108

Circle 219 on Free Info Card

Switcher

ECHOlab 5900: a large digital video switcher with an integrated server running Microsoft Windows NT; the new 4:2:2 component digital switcher has a full-function layout with two M/Es in addition to a program/preset bank, six keyers and up to 33 inputs and 18 outputs; the ECHOlab 5900 runs ITU-R 601 component digital, in 10-bit quality and is HDTV ready; the modular back panel provides total flexibility between digital I/O and 10-bit quality I/O; all inputs can be configured in any combination of formats; 781-273-1512; fax 781-273-3275; www.echolab.com

Circle 220 on Free Info Card

Monitor Scope

Hamlet Monitor Scope 601: this device provides analysis of NSTC and PAL serial digital 601, AES/EBU and all analog signals, with data displays, waveforms, vectors, colored bar graphs and peak-level indicators on its own built-in, high-quality color LCD; the digitized in-picture video outputs can also be transmitted and seen on any other monitor; this product will be exhibited at the James Grunder and Associates booth; +44 (0) 1494 793 763; fax +44 (0) 1494 791 283; steve@hamlet.co.uk

Circle 221 on Free Info Card

HDTV Lenses

Canon HDTV lenses: a full line of ENG and studio-style HDTV lenses including the HJ15X8B IRS/IAS standard zoom lens, the HJ18X7.8B IRS/IAS long zoom lens, the HJ 9X5.5B IRS/IAS wide-angle zoom lens, the UJ20X7B HDTV studio lens and the UJ65X9.5B HDTV field zoom lens; all of the lenses incorporate Canon's Internal Focus (IF) technology for superior optics; 800-321-4388; fax 201-816-9702; bctv@cusa.canon.com; www.usa.canon.com

Circle 222 on Free Info Card

The Top 5 ENG Wireless Receivers

UCR200D

Synthesized UHF wideband. Diversity reception. 256 frequencies. Auto-tracking front-end. External DC powering

UCR195D

Crystal controlled UHF wideband. The ultimate audio quality. Battery or DC operation. Diversity reception.

UCR195

Crystal controlled UHF wideband. The ultimate audio quality. Battery or DC operation. Single antenna reception.

UCR190

Crystal controlled UHF narrowband. UNICHANNEL® filtering. Battery or DC operation. Single antenna reception.

CR187

Crystal controlled VHF narrowband. UNICHANNEL® filtering. Battery or DC operation. Single antenna reception.

Made with pride in the USA

No matter how you stack it up, the best wireless microphone systems for ENG production are from Lectrosonics.

LECTROSONICS

Call: (800) 821-1121

Synthesized UHF Wireless IFB

The way you need it...

256 user selectable frequencies!

The T1 transmitter offers 250mW output and direct intercom interface with DIP switch input configuration. External 12V DC powering.

The T2 transmitter provides a 100mW belt-pack for person to person communications with headset and lavalier mics. 9 Volt battery powered.

The T3 transmitter adapts to any microphone with an XLR connector. 100mW output. 9 Volt battery powered.

The R1 receiver offers automatic scanning and programmable memory for up to 5 stored frequencies. 9 Volt battery powered.

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Automatic microphone mixing.

Programmable matrix mixing.

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Suppress background and ambient noise in the studio and eliminate the need to "chase" microphone activity on the console with the AM8 automatic microphone mixer. No more "late" mics and outstanding sound quality, all with convenient hands-free operation.

Utilize programmable audio signal routing and multiple mixes with the MM8 matrix mixer. Instantly recall up to 6 stored configurations with a simple dry contact closure, or up to 9 stored configurations using computer control. RS-232 interface built-in.

LecNet™ products work as stand-alone components or interface with production consoles and other audio signal processing equipment. Inexpensive, very flexible and highly reliable. LecNet™ software included.

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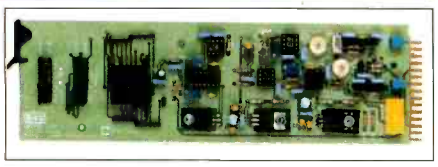
Circle (15) on Free Info Card

Videocart

AAVS DIVA DVCPRO: with a modular design, this videocart allows a fully customized configuration, based on standard modules with one or more expansion modules; several videocart machines can be linked together via a remote-control network; DIVA DVCPRO can be used in a wide variety of applications, under the control of AAVS's Acube automation system or other automation systems; it holds up to three VTRs with a capacity of 160 cassettes; +33 1 49 88 34 34; fax +33 1 48 57 33 58; contact@aavs.fr

Circle 223 on Free Info Card

VBI Data Bridge



Broadcast Video Systems VBI-10 data bridge: solves problems in video processing and time-shifting equipment; VBI-10 can help reinsert original data, VITS and closed-captioning on the outgoing video; can also delete unwanted data from selected line, move selected VBI from one signal and insert it into another; 905-764-1584; fax 905-764-7438; bvs@bvs.on.ca; www.bvs.on.ca

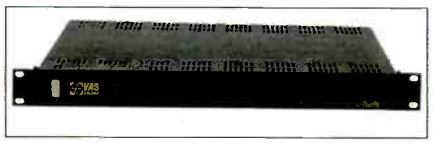
Circle 224 on Free Info Card

Videocassettes

Quantegy Digital Betacam videocassettes: the DBC formulation provides superior operational and archival performance in extreme environments; it offers high durability and output, combined with consistency and reliability; the coactive site binder system is designed to improve cross-linking and reduce debris; other features include a precision high-impact cassette mechanism, advanced anti-static plastics, Quantegy's exclusive labeling system and convenient cassette sizes from six to 124 minutes; 800-752-0732 or 770-486-2800; fax 800-628-0535

Circle 225 on Free Info Card

HDTV Tri-Level Sync Generator



VAS Group HD-10sg: this HDTV tri-level sync generator has the ability to lock its tri-level HDTV sync to 525 house sync to ensure that both HD and SD systems are in phase; this unique feature is useful when downconverting HD material to standard-definition video; the locking capability also facilitates synchronizing digital audio between HD and NTSC systems; 818-843-4831; fax 818-843-6544; www.vasgroup.com; into@vasgroup.com

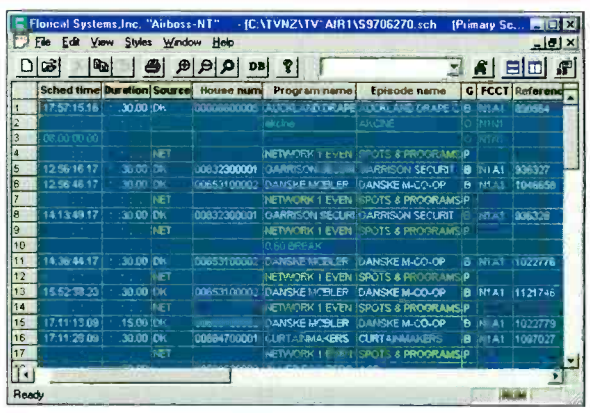
Circle 226 on Free Info Card

Digital Tape Degausser with EMF Shielding

Garner Industries Eliminator 4000FS: this Eliminator 4000 digital tape degausser is available with electromagnetic (EMF) shielding that reduces radiated EMFs by more than 50%; it is simple to operate and allows bulk degausser users to greatly reduce their exposure to EMFs without compromising tape erasing quality or productivity; degaussing is well-suited for digital formats such as DVCPRO, DVCAM and DIGITAL S; 402-434-9100; fax 402-434-9133; www.garnerindustries.com

Circle 227 on Free Info Card

Master Control Automation System



FloriCal Systems AirBoss-NT: this system operates on the Windows NT platform and provides seamless integration between traffic and master control; the system is designed for one-person operation and can be expanded to control an unlimited number of channels; 352-372-8326

Circle 228 on Free Info Card

Halogen or Arc Camera Light

PAG Ltd. Paglight: interchangeable plug-in lamp units allow variants of unit type or wattage to be changed without requiring the user to handle the quartz envelope; a PowerMax control unit incorporates a voltage-control unit, which incorporates a voltage control circuit that extends battery run time and improves lamp filament life, while ensuring a constant and correct color temperature output; the PowerArc option can be plugged in to convert from halogen to metal-halide arc; the light is continuously focusable from spot to flood with an even spectral distribution; a multidirectional mounting system allows the light to be adjusted vertically through 100°or horizontally through 180°; 44(0)181-543-3131; fax 44(0)181-540-4797; PAG_LIMITED@compuserve.com; www.pag.co.uk

Circle 229 on Free Info Card

Commercial Insertion Module

Videomedia VIP-PL play list module: V-LAN compatible; creates sequences by dragging clips from one or more bins that are extracted from a master database onto a time line; sequences can be created, recalled and edited when other sequences are playing; WIN95/NT interface and picture icons make system easy to use; 408-227-9977; fax 408-227-6707; www.videomedia.com

Circle 230 on Free Info Card

MPEG-2 Testing Platform

Hewlett-Packard E6277 MPEGscope Plus: a powerful, flexible and extensible platform for MPEG-2 DVB testing; it offers visualization of every detail from DVB and ATSC tables to video elementary stream analysis, including MPEG 4:2:2; the MPEGscope also features real-time analysis, such as ETR-290, PCR jitter and PID bandwidth, error-triggered capture and comprehensive post analysis to pinpoint every problem; 408-553-3001; www.hp.com/info/forhptv/; forhptv@vid.hp.com

Circle 231 on Free Info Card

Fixed Microwave Link

RF Technology ACL series: this series is a fixed microwave link offered in turnkey digital STL packages with a number of different system configurations available; options include single- and multichannel of NTSC and/or ATSC video with a number of modulation schemes, including 16QAM; transmission rates up to and greater than DS3 (45Mb/s) are available; 203-866-4283; fax 203-853-3513

Circle 232 on Free Info Card

Wireless Video System

DynaPIX TRIAD: portable diversity wireless video system; contains up to five receivers, each receiver output is simultaneously evaluated; proprietary logic board switches to the best signal at the horizontal line rate minimizing the effects of multipath and fades; 800-233-8639; fax 603-880-6965; www.dynapix.com

Circle 233 on Free Info Card

Condenser Microphone

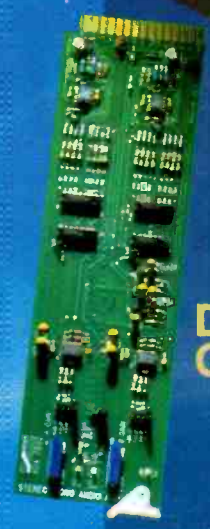
Sennheiser MKH 2-80: a series of RF condenser microphones designed for recording the most exacting criteria; the microphones feature low inherent self-noise for exceptionally accurate sound reproduction and high sensitivity ensures an excellent signal-to-noise ratio, even for weak signals; the low weight and durable light metal design make them suitable for outdoor applications; 860-434-9190; fax 860-434-9022; www.sennheiserusa.com; miclit@sennheiserusa.com

Circle 234 on Free Info Card

ROSS Gear

TERMINAL EQUIPMENT

Conversion Gear
- A-D Converters
- D-A Converters



Distribution Gear
- Analog Video
- Analog Audio
- Digital Video

Video Keying Gear
- Analog Keyers
- Digital Keyers

Telecine Gear
- Telecine Switchers

Master Control Gear
- Mini Master Control Switchers

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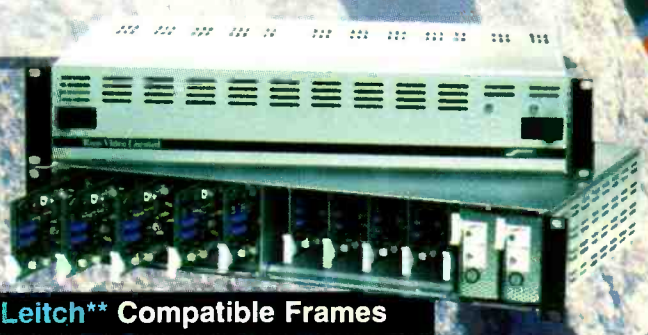
Count on Ross for all your terminal gear needs.

The RossGear family includes Converters, Audio and Video Distribution Products, Video Keyers, Telecine Switchers, and a Mini Master Control Switcher.

The Ross name, known for quality video production switchers, is rapidly becoming *the* name in terminal equipment.

Ross has released over 100 terminal gear products in the last three years.



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*GVG is a trademark of Tektronix Inc.
**Leitch is a trademark of Leitch technology Corporation

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Analog Switchers

RVS 210A	1 MLE, 10 Inputs
RVS 216A	1 MLE 16 Inputs
RVS 316	1 MLE, FGM/PST, 16 Inputs
RVS 416	2 MLE, 16 Inputs
RVS 424	2 MLE, 24 Inputs
RVS 630	2 MLE, FGM/PST 30 Inputs

ROSS

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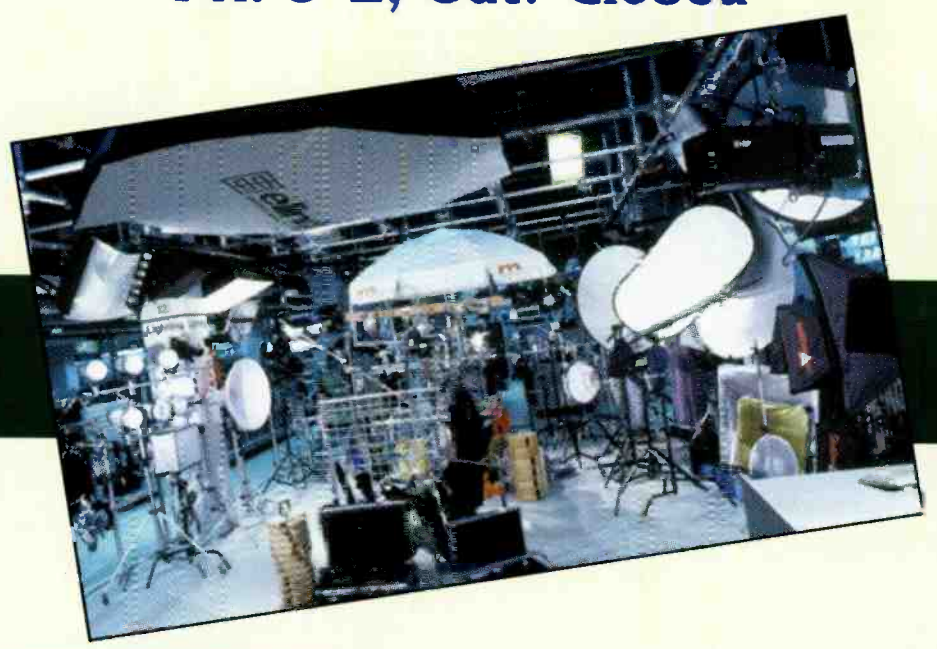

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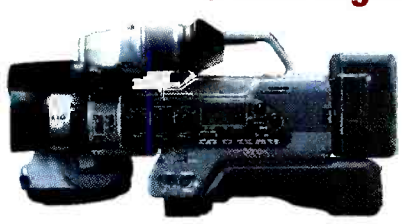
QUICK DIAL 74

SONY DSR-200A
3-CCD Digital (DVCAM) Camcorder

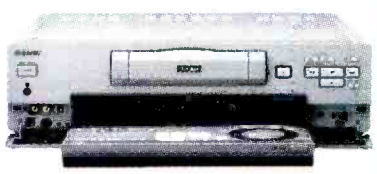


Combining a compact and lightweight body with the superior picture quality of DSP (Digital Signal Processing) and the DVCAM format, the DSR-200A is the ideal acquisition tool for video journalists, event and wedding videographers, stringers and production houses. 500 lines of horizontal resolution, 48kHz or 32kHz digital audio, three hour record time, and minimum illumination of 3 lux is only the beginning. Other features include 16:9/4:3 capability, Steady Shot, high resolution 1-inch viewfinder, time code operation, time/date superimposition and an IEEE-1394 interface for direct digital output. Offers full automatic as well as manual control of focus, iris, gain, white balance and shutter speed.

- Variable servo 10X optical power zoom lens goes from 5.9 to 59mm in 1.7 to 24 seconds. The manual zoom rocker is continuously variable right up to where the digital 20X zoom kicks in.
- Sony's Super Steady Shot reduces high frequency camera shake without compromising image quality. SteadyShot uses horizontal and vertical motion sensors that allow it to work accurately while zooming, moving (even shooting from a car), and shooting in low light conditions.
- Has digital effects including audio and video fade, overlap and Slow Shutter.
- Automatic and manual focus, iris, shutter, gain and white balance. Iris is adjustable in 12 levels from F1.6 to F11, shutter from 1/4 to 1/10,000 of a second in 12 steps, Gain from -3dB to +18dB in 8 steps.
- Zebra Pattern indicator, built-in ND filter.
- Custom Preset function lets you preset, store and recall custom settings for color intensity, white balance (bluish or reddish), sharpness and brightness.
- Stores Photo, Date/Time, Shutter Speed, Iris, Gain and F-stop for easy recall. So if you have to re-shoot, you know your original settings for every scene and frame.
- Records Drop/Non-Drop Frame time code. Time code can be read either as RC time code or as SMPTE time code
- Has a large 1-inch B&W viewfinder with 550 lines of resolution for easy focusing even in low contrast lighting situations. Separate information sub panel displays time code, battery time, tape remaining and other camcorder functions without cluttering up the viewfinder.
- Records 16-bit/48kHz audio on one stereo track or 12-bit/32kHz with two pairs of stereo tracks (L1/R 1, L2/R2), so you can add stereo music or narration.
- One-point stereo electret condenser mic for clear stereo separation. Directivity can be selected from 0°, 90° & 120°.
- Automatic & manual (20-step) audio level record controls. Monitor audio with headphones or from the LCD panel which has an active VU meter.
- XLR input connectors for mics and audio equipment.

DSR-200A Field Package:
- DSR-200A Camcorder • NPA-1000/B Battery Case Adapter
- 3 NP-F930/B 7.2v 4000 mAH Batteries
- AC-V900/B AC Adapter, Triple Battery Charger
- VCT-U14 Tripod Adapter • LC-2000CP System Case

DSR-30 DVCAM Digital VCR



The DSR-30 is an industrial grade DVCAM VCR that can be used for recording, playback and editing. DV standard 4:1:1 sampling digital component recording with a 5:1 compression ratio provides spectacular picture quality and multi-generation performance. It has a Control L interface for editing with other Control L based recorders such as the DSR-200A DVCAM Camcorder or another DSR-30 . It also has a continuous auto repeat playback function making it ideal for kiosks and other point of information displays. Other features include high quality digital audio, IEEE-1394 Digital interface and external timer recording. The DSR-30 can accept both Mini and Standard DVCAM cassettes for up to 184 minutes of recording time, and can playback consumer DV tapes as well.

- Records PCM digital audio at either 48kHz (16-bit 2 channel) or at 32kHz (12-bit 4 channel) .
- Equipped with Control L, the DSR-30 is capable of SMPTE Time Code based accurate editing even without an edit controller. Built in editing functions include assemble and separate video and audio insert .
- By searching for either an Index point or Photo Data recorded by the DSR-200A camcorder, the DSR-30 drastically cuts the time usually required for editing. The DSR-30 can record up to 135 Index points on the Cassette Memory thanks to its 16K bits capability.
- Audio lock ensures audio is fully synchronized with the video for absolute precision when doing an insert edit.
- Built-in control tray has a jog/shuttle dial, VCR and edit function buttons. The jog/shuttle dial allows picture search at ±1/5 to 15X normal speed and controls not only the DSR-30 but also a player hooked up through its LANC interface
- DV In/Out (IEEE 1394) for digital dubbing of video, audio and data ID with no loss in quality.
- Analog audio and video input/outputs make it fully compatible with non-digital equipment. Playback compatibility with consumer DV tapes allows you to work with footage recorded on consumer-grade equipment. Tapes recorded in the DSR-30 are also compatible with Sony's high-end DVCAM VCR's.

PVM-14N1U/14N2U & 20N1U/20N2U
13-inch and 19-inch Presentation Monitors

With high quality performance and flexibility, Sony's presentation monitors are ideal for any environment. They use Sony's legendary Trinitron CRT and Beam Current Feedback Circuit for high resolution of 500 lines as well as stable color reproduction. They also accept worldwide video signals, have a built-in speaker and are rack mountable. The PVM-14N1U/20N1U are designed for simple picture viewing, the PVM-14N2U and 20N2U add RGB input and switchable aspect ratio.

They Feature:
- 500 lines of horizontal resolution
- They handle NTSC, NTSC 4.43, PAL, and SECAM.
- Picture (chrome, phase, contrast, brightness) and setup adjustments (volume, aspect ratio) are displayed as easy-to-read on screen menus.
- Closed captioning is available with the optional BKM-104 Caption Vision Board.

PVM-14N2U/20N2U Only:
- (Last Input Switch) - Contact closure remote control allows you to wire a remote to an existing system so that the monitor's input can be remotely controlled to switch between the last previously selected input and the current input.
- 4:3/ 16:9 switchable aspect ratio

PVM-14M2U/14M4U & 20M2U/20M4U
13-inch and 19-inch Production Monitors

Sony's best production monitors ever, the PVM-M Series provide stunning picture quality, ease of use and a range of optional functions. They are identical except that the "M4" models incorporate Sony's state-of-the-art **HR Trinitron** CRT display technology and have SMPTE C phosphours instead of P22.

- HR Trinitron CRT enables the PVM-14M4U and 20M4U to display an incredible 800 lines of horizontal resolution. The PVM-14M2U and 20M2U offer 600 lines of resolution. M4 models also use SMPTE C phosphours for the most critical evaluation of any color subject.
- Dark tint for a higher contrast ratio (black to white) and crisper, sharper looking edges.
- Each has two composite, S-Video and component input (R-Y/B-Y, analog RGB).For more accurate color reproduction, the component level can be adjusted according to the input system. Optional BKM-101C (video) and BKM-102 (audio) for SMPTE 259M serial digital input.
- Beam Current Feadback Circuit
- 4:3/16:9 switchable aspect ratio.
- True multi-system monitors they handle four color system signals: NTSC, NTSC 4.43, PAL, and SECAM.
- External sync input and outputcan be set so that it will automatically switch according to the input selected.
- Switchable color temp: 6500K (broadcast), 9300K (pleasing picture), User preset.(3200K to 10000K).
- Blue gun, underscan and H/V delay capability
- On-screen menus for monitor adjustment/operation.
- Parallel remote control and Tally via 20-pin connector.

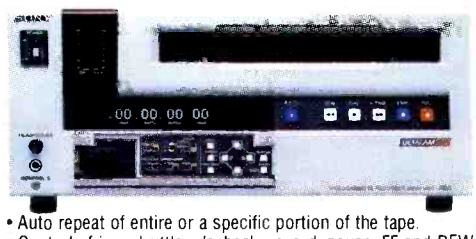
QUICK DIAL 72

SONY UVW-100B

More affordable than ever, the UVW-100B offers 700 lines of horizontal resolution, 60dB S/N ratio, 26-pin VTR interface, compact design and ease of operation– making it ideal for field shooting applications.

- Three 1/2-inch IT Power HAD CCDs with 380,000 pixels attain sensitivity of F11 at 2000 lux (low light is 4 lux), S/N ratio of 60dB and 700 lines of resolution.
- Gain-up can be preset in 1dB steps from 1dB to 18dB.
- Auto Iris detects the lighting conditions and adjusts for the proper exposure.
- Clear Scan records computer monitors without horizontal bands across the screen. Shutter speed can be set from 60.4 to 200.3 Hz in 183 steps. Also has a variable high speed shutter from 1/100 to 1/2000 of a second.
- SMPTE LTC time code and UB generator/reader. Rec Run/ Free Run, Preset/Regen are easily set. For multi-camera operation, genlock to an external time code is provided.
- Genlock input and built-in color bar generator.
- 26-pin VTR interface for feeding component, composite and S-Video signals to another VTR for simultaneous recording. Sart/stop are controlled and external VTR status such as Rec and Tally are shown in the viewfinder.
- Diecast aluminum, 1.5-inch DXF-601 viewfinder is rugged yet comfortable while providing 600 lines of resolution.
- Large diameter eye cup reduces eye strain and simplifies focusing. Diopter adjustments (-3 to 0) compensates for differences in eye sight.
- Zebra level indicators, safety zone and center marker generator. Shows tape remaining and audio levels.
- 8-digit LCD display indicates time data, warning indications and video status. Battery status audio level are also shown in a bar graph meter.
- With Anton/Bauer Digital Batteries remaining battery power is displayed on the LCD panel and through the viewfinder.
- Weighs 15lb. with viewfinder, battery, tape and lens. Shoulder pad is adjustable, so you maintain optimum balance when using different lenses and batteries.

UVW-1200/UVW-1400A
Betacam SP Player • Player/Recorder



The UVW-1200 and UVW-1400A are non-editing VCRs which deliver Betacam SP quality and offer features for a wide range of playback and recording applications. RGB and RS-232 interface make them especially ideal for large screen, high quality video presentation, scientific research and digital video environments.

- Ideally suited for work in computer environments, because RGB signals can be converted into component signals and vice versa with minimum picture degradation.
- 25-pin serial interface allows external computer control of all VCR functions based on time code information. Baud rate can be selected from between 1200 to 38,400 bps.
- Built-in Time Base Stabilizer (TBS) locks sync and subcarrier to an external reference signal as well as providing stable pictures. High quality digital dropout compensator further ensures consistent picture performance.
- Equipped with two longitudinal audio channels.
- Both read LTC Time Code) and UB (User Bits). The UVW-1400A also generates LTC and UB (Free-Run/Rec-Run).
- Built-in character generator can display VTR status, time code, self-diagnostic messages, set-up menu, etc.
- Auto repeat of entire or a specific portion of the tape.
- Control of jog, shuttle, playback, record, pause, FF and REW with the optional SVRM-100A Remote Control Unit.
- Composite and S-Video as well as component via BNCs which are switchable to RGB output. The UVW-1400A has two switchable sync connectors and a Sync on Green.
- Built-in diagnostic function and hour meter.
- Initial set-up menu for presetting operational parameters. Settings are retained even after power is turned off.

UVW-1600/UVW-1800
Betacam SP Editing Player • Betacam SP Editing Recorder

The UVW-1600 and UVW-1800 are the other half of the UVW series. They offer the superiority of Betacam SP with sophisticated editing features. They feature an RS-422 9-pin interface, built-in TBCs and Time Code operation. Inputs/outputs include component, composite and S-Video. **All the features of the UVW-1200/1400A *PLUS*—**

- Optional BVR-50 allows remote TBC adjustment.
- RS-422 interface for editing system expansion.
- Two types of component output; via three BNC connectors or a Betacam 12-pin dub connector.
- Frame accurate editing is assured, thanks to sophisticated servo control and built-in time code operation. In the insert mode of the UVW-1800, video, audio Ch-1/2 and time code can be inserted independently or in any combination.

PVW-2600/PVW-2650/PVW-2800
BETACAM SP 2000 PRO SERIES

Whenever versatility and no compromise performance is needed, there is only one choice. Legendary reliability and comprehensive support for its many users has established the PVW series as the standard in broadcast and post production .The PVW Series includes the PVW-2600 Player, PVW-2650 Player with Dynamic Tracking and the PVW-2800 Editing Recorder. They feature built-in TBCs, LTC/VITC time code operation and RS-422 serial interface. They also offer composite, S-Video and component video inputs and outputs. Most important they are built for heavy, every day duty.

- Built-in TBC's and digital dropout compensation assure consistent picture performance. Remote TBC adjustment can be done using the optional BVR-50 TBC Remote Control.
- The PVW-2600, PVW-2650 and PVW-2800 (generates as well) read VITC/ LTC time code as well as User Bits. Ext/Int time code, Regen/Preset, or Rec-Run/ Free-Run selections
- Built-in character generator displays time code or CTL data.
- Set-up menu for presetting many functional parameters.

PVW-2650 Only
- Dynamic Tracking (DT) playback from -1 to +3 times normal speed.

PVW-2800 Only
- Built-in comprehensive editing facilities.
- Dynamic Motion Control with memory provides slow motion editing capability.
- Two longitudinal audio channels with Dolby C- type NR.
- Recognizable monochrome pictures at up to 24X normal speed in forward and reverse. Color at speeds up to 10X
- Two types of component connection; three BNC connectors or a Betacam 12-pin dub connector. They have composite and S-Video signals as well.

UHF WIRELESS MICROPHONE SYSTEMS

Consisting of 5 handheld and bodypack transmitters and 6 different receivers, Sony's UHF is recognized as the outstanding wireless mic system for professional applications. Operating in the 800 MHz band range, they are barely affected by external noise and interference. They incorporate a PLL (Phase Locked Loop) synthesized control system that makes it easy to choose from up to **282** operating frequencies, and with the use of Sony's pre-programmed channel plan, it is simple to choose the correct operating frequencies for simultaneous multi-channel operation. Additional features, like space diversity reception, LCD indicators, reliable and sophisticated circuit technology ensure low noise, wide dynamic range, and extremely stable signal transmission and reception. Ideal for broadcasting stations, film production facilities, and ENG work.

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Panasonic

QUICK DIAL 74

WJ-MX50 Digital A/V Mixer

- Four input switcher and any two sources can be routed to the program busses. • Two-channel digital frame synchronization permits special effects in each A/B bus.
- Combination of 7 basic patterns and other effects creates 287 wipe patterns. • External edit control input for RS-232 or RS-422 serial controls. Also has GPI input.
- Wipe boundary effects: soft/border (bold, eight background colors available). • Digital effects:strobe, still, mosaic, negative/ positive, paint, B&W, strobe, trail, and AV synchro.
- Real-Time compression - entire source image is compressed inside a wipe pattern.
- Fade-in and fade-out video, audio, titles individually or synchronously faded .• Down stream keyer with selectable sources from character generator or external camera.
- "Scene Grabber" moves a pattern while upholding the initially trimmed-in picture integrity.
- Eight separate memories enable instant recall of frequently used effects. • 8 preset effects including: Mosaic Mix, Position Stream, Corkscrew, Bounce, Flip, Shutter, Vibrate, and Satellite .• Audio mixing capability of 5 sources with 5 audio level adjustments.

Canon

IF+ Series Zoom Lenses

Canon's IF+ family of lenses are engineered to meet the needs of the next generation of broadcasting while meeting the standards of today. Besides having the widest wide angle lens available, the IF+ lens series have wider angles at shorter M.O.D. (Minimum Object Distance), provide higher MTF performance and incorporate Hi-UD glass for reduced chromatic aberration. In addition to superb optics they're all designed with Canon's "Ergonomic Grip" for fatigue-free shooting over an extended time. IF+ lenses are your assurance of unsurpassed quality and performance for today and tomorrow.

J15ax8B

A next generation internal focusing lens with the shortest MOD and widest angle of any standard lens, the J15aX8B IRS/IAS is a standard ENG lens that lets you shoot in tight or restricted areas at the closest mimimum object distance ever possible and capture more of the subject. It incorporates all the great features of IF+lenses including a built-in 2X extender, high MTF performance, Hi-UD glass, square lens hood and Canon's "Ergonomic Grip".

J20ax8B IRS/IAS

Excellent for ENG, sports and production, the J20aX8B IRS/IAS lets you squeeze in shots from 8mm and still take you all the way out to 320mm with its built-in extender. Incorporates all IF+ features, plus is the only lens (besides the J9aX5.2B IRS/IAS) with aVari-Polar lens hood, enabling rotation of attached filters.

GLIDECAM INDUSTRIES

V-16 AND V-20 Camera Stabilization Systems

The V-16 and V-20 allow you to walk, run, go up and down stairs, shoot from moving vehicles and travel over uneven terrain without any camera instability or shake. The V-16 stabilizes cameras weighing from 10 to 20 pounds and the V-20 from 15 to 26 pounds. They are both perfect for shooting the type of ultra-smooth tracking shots that take your audience's and client's breath away.– instantly adding high production value to every scene. Whether you are shooting commercials, industrials, documentaries, music videos, news, or full length motion pictures, the Glidecam "V" series will take you where few others have traveled.

sachtler

CADDY systems

Sachtler quality is available to low budget users. The price of a CADDY system includes the 7-step dampened CADDY fluid head, ultra-light but rugged carbon fiber tripod, lightweight spreader and either a soft bag or cover. The CADDY fluid head features an adjustable pan arm, 7-step adjustment for quick counter balance and the self-locking Sachtler Touch and Go System.

CAD 01 Single-Stage ENG Carbon Fiber System:
- CADDY Fluid Head • ENG Single-Stage Carbon Fiber Tripod
- SP 100 Lightweight Spreader • Transport Cover 100

CAD 2A 2-Stage ENG Carbon Fiber System:
- CADDY Fluid Head • ENG 2-Stage Carbon Fiber Tripod
- SP 100 Lightweight Spreader • Soft padded ENG Bag

MILLER Fluid Heads and Tripods

Miller 20 -Series II Fluid Head

- Dynamic fluid drag control
- Sliding/quick release camera platform
- Weighs 4 lbs. – handles up to 22 lbs.
- Counterbalance system compensates for nose heavy or tail heavy camera configurations and permits fingertip control of the camera throughout the tilt range.
- Includes independent pan and tilt locks, bubble level, dual pan handle carriers and integrated 75mm ball levelling.

Miller 25-Series II Fluid Head

- 100mm ball level fluid head • Robust, lightweight, low profile design
- Quick release camera platform • Weighs 7lbs.–handles up to 25 lbs.
- Multi-step fluid drag system and integrated counterbalance system provide ultra-smooth, repeatable pan-and-tilt fluid control and finger-tip camer balance for ENG camcorders, industrial CCD cameras or small studio cameras

#601-Lightweight Tripod

- Weighs 4.5 lbs., supports up to 30 lbs.
- Minimum height down to 24", maximum height to 57".
- Folds down to 33" • Engineered from thermoplastic moldings, diecast alloy and hard anodized tubular alloy.
- Fast, one turn, captive leg locks
- Includes 75mm (3") ball levelling bowl

#649-2-Stage Tripod

- Two extension sections on each leg. Operates at low levels as well as normal heights without the use of mini legs.
- High torsional rigidity, no pan backlash
- Weighs 6.6lbs., supports 50 lbs. • Very portable, folds to 27"
- Includes 75mm (3") ball levelling bowl

System 20 #338—Miller 20 Head, 601 Lightweight Tripod, On Ground Spreader
System 20 ENG #339—Miller 20 Head, 649 2-Stage Aluminum, On Ground Spreader
System 25 #500—Miller 25 Head, 611 Lightweight Tripod, On Ground Spreader
System 25 ENG #502—Miller 25 Head, 641 2-Stage Aluminum, On Ground Spreader

Vinten

Vision SD 12 Pan and Tilt Head with Serial Drag

The Vision SD 12 head features "Serial Drag" pan and tilt system. System consists of a unique, permanently-sealed fluid drag and an advanced lubricated friction drag. You achieve the smoothest pans and tilts regardless of speed, drag setting and ambient temperature.
- Patented spring-assisted counter-balance system permits perfect "hands-off" camera balance over full 180° of tilt.
- Instant drag system breakaway and recovery overcome inertia and friction for excellent "whip pans".
- Consistent drag levels in both pan and tilt axis.
- Flick on, flick off pan and tilt caliper disc brakes.
- Greater control, precision, flexibility and "touch"
- Touch activated, time delayed illuminated level bubble.
- Working conditions from as low as -40° up to +60°C.
- SD 12 weighs 6.6 lbs and supports up to 35 lbs.

Vision 12 Systems

Vision 12 systems include #3364-3 SD 12 dual fluid & lubricated friction drag pan/tilt head, single telescoping pan bar & clamp with 100mm ball base.

SD-12A System
- SD-12 pan and tilt head
- 3518-3 Single stage ENG tripod with 100mm bowl
- 3363-3 Lightweight calibrated floor spreader.

SD-12D System
- SD-12 pan and tilt head
- 3513-3 Two-stage ENG tripod with 100mm bowl
- 3314-3 Heavy-duty calibrated floor spreader

Vision Two Stage ENG and LT Carbon Fibre ENG Tripods

The ultimate in lightweight and innovative tripods, they are available with durable tubular alloy (Model #3513) or the stronger and lighter, axially & spirally wound carbon fiber construction (Model #3523). They incorporate torque safe clamps to provide fast, safe & self-adjusting leg clamps.
- "Torque Safe" requires no adjustment. Its unique design adjusts itself when required, eliminating manual adjustment and maintenance and making for a much more reliable clamping system.
- New hip joint eliminates play and adds rigidity.
- They both feature 100mm levelling bowl, fold down to a compact 28", and support 45 lbs.
- #3513 weighs 6.5 lbs - #3523 CF (Carbon Fibre) weighs 5.2 lbs.

VIN-5ST and VIN-10ST

- Compact & lightweight, they maintain Vision performance and quality.
- Provide total stability and durability with payloads up to 33 lbs.
- Ideal for the latest generation of dockable and one-piece camcorders.
- Compatible with all Vision accessories,

VIN-5ST includes Vision 5LF head, single stage toggle clamp tripod, spreader and soft case.
VIN-10ST includes Vision 10LF head, single stage toggle clamp tripod, spreader and soft case.

anton bauer DIGITAL Gold Mount Batteries

Acknowledged to be the most advanced battery in the industry, the Logic Series DIGITAL batteries deliver the feature most requested by cameramen: a reliable and accurate indication of remaining battery power.

DIGITAL PRO PACS

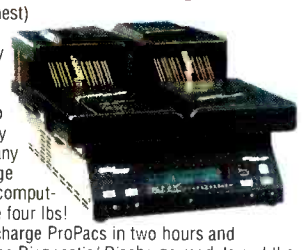
The ultimate professional video battery and recommended for all applications. The premium heavy duty Digital Pro Pac cell is designed to deliver long life and high performance even under high current loads and adverse conditions. It's size and weight creates perfect shoulder balance with all camcorders.
- **DIGITAL PRO PAC 14 LOGIC SERIES NICAD BATTERY**
  14.4v 60 Watt Hours. 5 1/8 lbs. Run time: 2 hours @ 27 watts, 3 hrs. @ 18 watts
- **DIGITAL PRO PAC 13 LOGIC SERIES NICAD BATTERY**
  13.2v 55 Watt Hours. 4 3/4 lbs. Run time: 2 hours @ 25 watts, 3 hours @ 17 watts

DIGITAL TRIMPAC

Extremely small and light weight, the Digital Trimpac still has more effective energy than two NP style slide-in batteries. High voltage design and Logic Series technology eliminate the problems that cripple conventional 12 volt slide-in type batteries. The professional choice for applications drawing less than 24 watts.
- **DIGITAL TRIMPAC 14 LOGIC SERIES NICAD BATTERY**
  14.4 v 43 Watt Hours. 2 3/4 lbs.
  Run time: 2 hours @ 20 watts, 3 hours @ 13 watts.

InterActive 2000 Power/Chargers

QUAD 2702/2401 Four-Position Power/Chargers



The lightest (and slimmest) full featured four position chargers ever. They can fast charge four Gold Mount batteries and can be expanded to charge up to eight. They also offer power from any AC main: all in a package the size of a notebook computer and weighing a mere four lbs! The 40 watt 2401 can charge ProPacs in two hours and TrimPacs in one. Add the Diagnostic/ Discharge module and the QUAD 2401 becomes an all purpose power and test system. The 70 watt QUAD 2702 bundles all Power/Charger features in the ultimate professional power system.

Dual 2702/2401 Two-Position Power/Chargers

The DUAL 2701 (70 watt) and 2401 (40 watt) are sleek, rugged and economical two position Power/Chargers that have all the features of InterActive 2000 technology including DC camera output and LCD display. The DUAL 2701 will charge any Gold Mount battery in one hour, the DUAL 2401 charges ProPac batteries in two hours and Trimpacs in one. Their compact, lightweight package design makes them the ultimate travel Power/Chargers. They can also be upgraded with the Diagnostic/Discharge Module and/or with the Expansion Charge Modules to charge up to six batteries of any type.

PROFESSIONAL VIDEO TAPES

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M221 Hi 8 Double Coated

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P660HMP	6.49	E660HME	10.49
P6120HMP	8.49	E6120HME	13.99

M321SP Metal Betacam (Box)
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DP121 DVC PRO
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maxell

Hi8 Metal Particle (XRM)
P6-120 XRM 6.99

Broadcast Quality Hi8 Metal Particle
P6-30 HM BQ 5.39 P6-60 HM BQ 6.09
P6-120 HM BQ 7.99

P/I PLUS VHS
T-30 Plus 1.69 T-60 Plus 1.99 T-90 Plus 2.09
T-120 Plus 2.19 T-160 Plus 2.69

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HGXT-60 Plus 2.69 HGXT-120 Plus 2.99
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BQ Broadcast Quality VHS (Box)
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ST-126 BQ 8.39 ST-182 BQ 17.49

Betacam SP
B5MSP 15.75 B10MSP 17.75 B20MSP 19.75
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Panasonic

Mini DV Tape
AY DVM-30 9.99 AY DVM-60 11.99

DVCPRO
AJ-P12M (Medium) 8.49 AJ-P23M 9.99
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AJ-P64L (Large) 24.99 AJ-P94L 34.99
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P6-30 HMPX 4.59 P6-30 HMEX 7.99
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PM Series Premier Grade Professional VHS
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BA Series Premier Hi-Grade Broadcast VHS (In Box)
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XBR 3/4" U-matic Broadcast Master (In Box)
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KCA-10 XBR 9.29 KCA-20 XBR 10.69
KCA-30 XBR 11.99 KCA-60 XBR 15.69

KSP 3/4" U-matic SP Broadcast (In Box)
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KSP-10 10.09 KSP-20 11.59
KSP-30 12.99 KSP-60 16.99

BCT Metal Betacam SP Broadcast Master (Box)
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BCT-20M (small) 13.99 BCT-30M (small) 14.99
BCT-30ML 21.49 BCT-60ML 23.49
BCT-90ML 34.99

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DVM-30EX "No Chip" 12.99 DVM-60EX "No Chip" 14.99
DVM-30PR "No Chip" 9.99 DVM-60PR "No Chip" 12.99

Full Size DV Tape with Memory Chip
DV-120MEM 26.95 DV-180MEM 34.95

PDV Series Professional DVCAM Tape
PDVM-12ME (Mini) 19.50 PDVM-22ME (Mini) 22.95
PDVM-32ME (Mini) 24.95 PDVM-40ME (Mini) 26.95
PDV-64ME (Standard) 34.95 PDV-94ME (Standard) 36.95
PDV-124ME (Standard) 39.95 PDV-184ME (Standard) 49.95
PDVN-64N 27.50 PDVN-124N 34.95 PDVN-184N 43.95

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QUICK DIAL 731

NewTek

Calibar 3-Oz. Pocket-Sized Test Generator

The size of a ball point pen and running on a single battery, Calibar is an NTSC test signal generator that packs a rack mount's worth of test equipment into a battery operated instrument. Calibar is the fastest, easiest and most portable way ever to calibrate video equipment. No patch bay racks. Just one cable. So besides giving you fast accurate readings in the studio, it's perfect for off-site events or trouble-shooting in the field.

- Designed for studio and field operation, it produces 24 test pattern functions at the touch of a button. 10-bit precision digital-to-analog conversion assures highly accurate signals.
- Calibar's combination of low cost, portability and full-featured operation makes it ideal for broadcast engineers, television production facilities and video post houses.
- Tuck Calibar in your pocket and you're ready to go. Touch the button to generate SMPTE color bars, touch it again to calibrate convergence and so on.
- With the supplied AC adapter, it also functions as a black burst generator.

CHYRON PC-CODI & PC Scribe

Text and Graphics Generator and Video Titling Software

PC-CODI incorporates a broadcast quality encoder and a wide bandwidth linear keyer for the highest quality, realtime video character generation and graphics display. A video graphics software engine running under Windows 95/NT, PC Scribe offers a new approach and cost effective solution for composing titles and graphics that is ideal for video production and display applications. Combined, their a total solution for real-time character generation with the quality you expect from Chyron.

PC-CODI Hardware:

- Fully-antialiased displays • Display and non-display buffers
- Less than 10 nanosecond effective pixel resolution
- 16.7 million color selections • Fast, realtime operations
- Character, Logo and PCX Image transparency
- Variable edges: border, drop shadow and offset
- Full position and justify control of character and row
- User definable intercharacter spacing (squeeze & expand)
- Multiple roll/crawl speeds • Automatic character kerning
- User definable tab/template fields
- Shaded backgrounds of variable sizes and transparency
- Software controlled video timing
- User definable read effects playback; wipes, pushes, fades
- NTSC or PAL sync generator with genlock
- Board addressability for multi-channel applications
- Auto display sequencing • Local message/page memory
- Preview output with safe-title/cursor/menu overlay
- Composite and S-video input with auto-genlock select

PC-Scribe Software:

- Number of fonts is virtually unlimited. Also supports most international language character sets. Fonts load instantly and the level of anti-aliasing applied is selectable.
- Adjust a wide range of character attributes. Wide choice of composition tools.
- Characters, words, rows and fields can color flash
- Character rolls, crawls and reveal modes. Speed is selectable and can be auto timed with pauses. Messages can be manually advanced or put into sequences along with page transitions.
- Multiple preview windows can be displayed simultaneously.
- Transitions effects include: cut, fade, push, wipe, reveal, peel, zoom, matrix, wipe, spiral, split, weave and jitter.
- Import elements to build graphics. This includes OLE objects, iNFiNiT! RGBA and TGA with alpha channel. Scribe also imports and exports TIFF, JPEG, PCX, TGA, BMP, GIF, CLP, ASCII, IMG, SGI, PICT and EPS formats.

PC-CODI and PC-Scribe Bundle.....2995.00

TRUEVISION / AVID

TARGA 1000/MCXpress NT

Professional Video Production Workstation

Incorporating the award-winning TARGA 1000 video card and Avid MCXpress NT non-linear editing software, this fully-configured workstation meets the needs of production professionals, corporate communicators, educators and Internet authors.

TARGA 1000 Features:

The TARGA 1000 delivers high processing speed for video and audio effects, titling and compositing. Capture, edit and playback full-motion, full-resolution 60 fields per second digital video with fully synchronized CD-quality audio.

- Compression can be adjusted on the fly to optimize for image quality and/or minimum storage space. Has composite and S-video inputs/outputs. Also available with component input/output (TARGA 1000 PRO).
- Genlock using separate sync input for working in professional video suites
- Audio is digitized at 44.1KHz or 48KHz sampling rates, for professional quality stereo sound. Delivers perfectly synchronized audio and video.

MCXpress Features:

The ideal tool for video and multimedia producers who require predictable project throughput and high-quality results when creating video and digital media for training, promotional/marketing material, local television and cable commercials, CD-ROM and Internet/intranet distribution. Based on Avid's industry-leading technology, it combines a robust editing functionality with a streamlined interface. Offers integration with third-party Windows applications, professional editing features, powerful media management, title tool and a plug-in effects architecture. It also features multiple output options including so you save time and money by reusing media assets across a range of video and multimedia projects.

TARGA 1000/MCXpress Turnkey Systems:

- 300-watt, 6-Bay Full Tower ATX Chassis
- Pentium ATX Motherboard with 512K Cache
- Pentium II- 300 MHz Processor
- Matrox Millenium II AGP 4MB WRAM Display Card
- 64MB 10ns 168-Pin (DIMM) S-DRAM
- Quantum Fireball 6.4GB IDE System Drive
- Seagate Barracuda External 9.1GB SCSI-3 Ultra Wide Capture Drive
- Adaptec AHA-2940UW Ultra Wide SCSI-3 Controller Card
- Teac CD-532e 32X EIDE Internal CD-ROM Drive • 3.5" Foppy Drive
- Altec-Lansing ACS-48 3-Piece Deluxe Speaker System
- Viewsonic G771 17-inch (1280 x 1024) Monitor (0.27mm dot pitch)
- Focus 2001A Keyboard • Microsoft MS Mouse
- Windows NT 4.0 Operating System Software
- Avid MCXpress for Windows NT
- Truevision TARGA 1000 or 1000 Pro Video Capture Card

With TARGA 1000 .....$7495.00
With TARGA 1000 Pro (component input/output) $7995.00

KNOX VIDEO

RS4x4/8x8/16x16/16x8/12x2

Video/Audio Matrix Routing Switchers

Knox's family of high performance, 3-channel routing switchers are extremely versatile, easy-to-use and very affordable. Housed in an ultra-thin rackmount chasiss they accept and route (on the vertical interval) virtually any video signal, including off-the-air and non-timebase corrected video. They also route balanced or unbalanced stereo audio. The audio follows the video or you can route the audio separately (breakaway audio). Each of the switchers offers manual control via front panel operation. They can also be controlled remotely by a PC, a Knox RS Remote Controller, or by a Knox Remote Keypad via their RS-232 port. Front panel LEDs indicate the current routed pattern at all times. Knox switchers are ideal for applications such as studio-feed control and switcher input control, plus they have an internal timer allowing timed sequence of patterns for surveillance applications as well.

- Accept and routes virtually any one-volt NTSC or PAL video signal input to any or all video outputs.
- Accept and route two-volt mono or stereo unbalanced audio inputs to any or all audio outputs.
- Video and audio inputs can be routed independently , they don't need to have the same destination.
- Can store and recall preset cross-point patterns. (Not available on RS12x2.)
- Front panel key-pad operation for easy manual operation.
- Can also be controlled via RS-232 interface with optional RS Remote Controller or Remote Keypad.
- Front panel LED indicators display the present routing patterns at all times.
- An internal battery remembers and restores the current pattern in case of power failure.
- Internal vertical interval switching firmware allows on-air switching.
- Housed in a thin profile rackmount 1" chassis.
- Also except the RS12x2 are available in S-Video versions with/without audio.
- Models RS16x8 and RS16x16 are also available in RGB/component version.
- With optional Remote Video Readout, the RS16x8 and RS16x16 can display active routes on a monitor at remote locations, via a composite signal from a BNC connector on the rear panel.
- The RS4x4, RS8x8 and RS16x16 are also available with balanced stereo audio. They operate at 660 ohms and handle the full range of balanced audio up to +4 dB with professional quick-connect, self-locking, bare-wire connectors.

LEADER

Manufacturing test and measurement equipment for over 40 years, Leader Instruments is the standard which others are measured against for reliability, performance, and most important—cost effectiveness.

5860C WAVEFORM MONITOR

A two-input waveform monitor, the 5860C features 1H, 1V, 2H, 2V, 1 s/div and 2V mag time bases as well as vertical amplifier response choices of flat, IRE (low pass), chroma and DIF-STEP. The latter facilitates easy checks of luminance linearity using the staircase signal. A PIX MON output jack feeds observed (A or B) signals to a picture monitor, and the unit accepts an external sync reference. Built-in calibrator and on-off control of the DC restorer is also provided.

5850C VECTORSCOPE

The ideal companion for the 5860C, the 5850C adds simultaneous side-by-side waveform and vector monitoring. Featured is an electronically-generated vector scale that precludes the need for fussy centering adjustments and eases phase adjustments from relatively long viewing distances. Provision is made for selecting the phase reference from either A or B inputs or a separate external timing reference.

5100 4-Channel Component / Composite WAVEFORM

The 5100 handles three channels of component signals, plus a fourth channel for composite signals, in mixed component / composite facilities. Features are overlaid and parade waveform displays, component vector displays, and automatic bow-tie or "shark fin" displays for timing checks. Menu-driven options select format (525/60, 625/50, and 1125/60 HDTV), full line-select, vector calibration, preset front-panel setups and more. On-screen readout of scan rates, line-select, preset numbers, trigger source, cursor time and volts.

5100D Digital Waveform/Vectorscope

The 5100D can work in component digital as well as component analog facilities (and mixed operations). It provides comprehensive waveform, vector, timing and picture monitoring capabilities. Menu driven control functions extend familiar waveform observations into highly specialized areas and include local calibration control, the ability to show or blank SAV/EAV signals in both the waveform and picture, the ability to monitor digital signals in GBR or YCbCr form, line select (with an adjustable window), memory storage of test setups with the ability to provide on-screen labels, flexible cursor measurements, automatic 525/60 and 625/50 operation and much much more.

5870 Waveform/Vectorscope w/SCH and Line Select

A two-channel Waveform/Vector monitor, the microprocessor-run 5870 permits overlaid waveform and vector displays, as well as overlaid A and B inputs for precision amplitude and timing/phase matching. Use of decoded R-Y allows relatively high-resolution DG and DP measurements. The 5870 adds a precision SCH measurement with on-screen numerical readout of error with an analog display of SCH error over field and line times. Full-raster line select is also featured with on-screen readout of selected lines, a strobe on the PIX MON output signal to highlight the selected line, and presets for up to nine lines for routine checks.

5872A Combination Waveform/Vectorscope

All the operating advantages of the 5870, except SCH is deleted (line select retained), making it ideal for satellite work.

5864A Waveform Monitor

A two-input waveform monitor that offers full monitoring facilities for cameras, VCRs and video transmission links. The 5864A offers front panel selection of A or B inputs, the choice of 2H or 2V display with sweep magnification, and flat frequency response or the insertion of an IRE filter. In addition, a switchable gain boost of X4 magnifies setup to 30 IRE units, and a dashed graticule line at 30 units on screen facilitates easy setting of master pedestal. Intensity and focus are fixed and automatic for optimum display. Supplied with an instruction manual and DC power cable.

5854 Vectorscope

A dual channel compact vectorscope, the 5854 provides precision checkout of camera encoders and camera balance, as well as the means for precise genlock adjustments for two or more video sources. Front panel controls choose between A and B inputs for display and between A and B for decoder reference. Gain is fixed or variable, with front panel controls for gain and phase adjustments. A gain boost of 5X facilitates precise camera balance adjustments in the field. Supplied with a DC power cable.

Designed for EFP and ENG (electronic field production and electronic news gathering) operations, they feature compact size, light weight and 12 V DC power operation. Thus full monitoring facilities can be carried into the field and powered from NP-1 batteries, battery belts and vehicle power. Careful thought has been given to the reduction of operating controls to facilitate the maximum in monitoring options with the operating simplicity demanded in field work.

CORPORATE ACCOUNTS WELCOME

Circle (3) on Free Info Card

Multistandard Studio/Field Camera

Hitachi SK-3000 & SK-3000P (portable version): a multistandard studio camera that provides simultaneous HDTV and NTSC outputs; features include a seven-inch viewfinder and automatic 16:9/4:3 signal conversion; the 1.5Gb/s digital output from the camera head is brought to the camera control unit via an optical fiber cable; in addition to the standard analog and digital HDTV outputs, the signal is digitally converted to an NTSC rate (16:9 or 4:3) for the serial digital component and analog outputs; this camera uses 2,000,000-pixel CCDs and operates in a 16:9 HDTV format at all times; 516-921-7200; fax 516-496-3718

Circle 235 on Free Info Card

Remote Control Option for Mirage

Sierra Video Systems mini-production switcher control for Mirage: a new remote-control panel option is available for the Mirage real-time digital image compositing system; the new panel unveils a small production switcher built into Mirage; the panel can be used with Mirage's on-screen graphical user interface and has a trackball mounted in the middle that provides control of all functions that the mouse can operate in addition to a level arm mode; other Mirage production features include standard protocol-based editor interface, auto-transition and look-ahead preview; 530-478-1000; fax 530-478-1105; www.sierravideo.com; sales@sierravideo.com

Circle 236 on Free Info Card

Comprehensive Digital Conversion System

Telect VersaFrame II: this digital conversion system provides a comprehensive range of conversion tools for A-to-D, D-to-A, component, composite and countless other applications; it features architecture that is easy to use and easily expandable for future growth; individual modules simply dock in the chassis allowing users to customize a conversion system; www.telect.com; 800-551-4567

Circle 237 on Free Info Card

Real-time Platform For Windows NT

Matrox DigiSuite: a dual-stream real-time digital media creation platform for Windows NT that features an advanced real-time feature set and the highest M-JPEG data rates on the market; two DVE processors provide high-quality scaling, sub-pixel motion effects and full proc amp controls for two video stream or graphics with alpha; www.matrox.com/video; video.infomatrox.com

Circle 239 on Free Info Card

Serial Digital and Analog Video Converters

Ensemble Designs Serial Box V: a serial digital component to analog converter that allows you to convert both video and key in one package; it features gen-lock reference and timing control, as well as 4:2:2:4, 4:4:4 and 4:4:4:4 support; applications include telecine, traditional chroma keying and virtual sets; the gen-lock reference input and full timing controls make it easy to integrate with all types of equipment; 530-478-1830; fax 530-478-1832

Circle 238 on Free Info Card

Lighting Equipment

Cool-Lux COOL-Brick: the new and improved Brick is designed so that there is no recessed pin to wear out and the casing opens so it is capable of recell servicing for years of use; a key optional feature is a specially lighted panel on the front of the COOL-Brick that can display the broadcast organization's name; a master on/off switch governs the COOL-Brick so it will not discharge even when attached to the camera; the COOL-Brick is available in 13.2 and 14.4 voltages; 805-482-4820; fax 805-482-0736

Circle 240 on Free Info Card

Automated Video Signal Monitors

Magni Systems AVM 510 N and T versions: these new versions of the AVM series offer the capability of unattended error detection and reporting of non-linear distortions and depth of modulation signal parameters; for on-site monitoring, errors can be logged with time/data stamps; for remote site monitoring, both measurements and waveforms can be retrieved with Magni LOGBOOK II software; the monitors support live video signal monitoring; out-of-limit conditions are flagged by the Smart Guard display and can be logged on a PC file or printed to a hard copy with a time/date or VITC time-code reference stamp; 800-237-5964; 503-615-1900; fax 503-615-1999; sales@magnisystems.com; www.magnisystems.com

Circle 241 on Free Info Card

Digital Set-Top Boxes

TV/COM TVC-3000 series: this series of Hyundai digital set-top boxes are in integral part of TV/VOM's end-to-end digial MPEG-2/DVB network solution; the set-top boxes provide a low-cost decoding platform for digital video, audio and data services; they are MPEG-2 and DVB compliant and include virtual channels, teletextsubtitling/closed captioning, subscriber messaging, software downloadabilty and afull set of diagnostics; an electronic program guide (EPG) is included, as well as standard industry parental control, favorite channel and clock features; 619-618-350-0; fax 619-618-3550

Circle 242 on Free Info Card

Visual Asset Manager

Odetics Bowser: this system stores highly compressed proxies of all on-line and archive video material; its on-line storage capabilities can be increased to thousands of hours and support hundreds of users; a near-online storage option allows for the storage and retrieval of an unlimited amount of video data from data-tape storage; all of the material stored by Bowser is frame accurate for precise timing, trimming and cueing; a browsing copy of material can be created by automatically shadowing normal dubbing operations; 714-774-2200; fax 714-780-7594

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Audio and Video Routing Systems

NVISION processing modules: new series of audio and video signal processing modules; DA4010 AES DA; DA4030 dual AES A/D converter; SG4410 master digital audio reference generator; SD4110 digital video DA; enVY router control system, NT-based provides customized interfaces; 530-265-1010; fax 530-265-1000; www.nvision1.com

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Passive Switchers

Multidyne SW-5S and SW-10S: these video and stereo audio passive switchers allow users to select one of five and 10 video and stereo audio sources, respectively; unselected video inputs are terminated in 75Ω; unselected audio input are terminated into 600Ω; the SW-5S features 12 XLR audio connectors and six BNC video connectors; the SW-10S features quick-release, pluggable, screw terminal audio connectors and 11 BNC video connectors; both are available in tabletop and rack-mount configurations; 800-4TV-TEST; 516-671-7278; fax 516-671-3362

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DM-100

Palm-sized demodulator is a 154-channel utility demodulator with video and stereo audio outputs, and a variety of power choices (including 120 VAC, 12 VDC and -48 VDC). A system feature included in the DM-100 is a rear panel switch that locks the front panel, preventing any accidental front panel adjustments.

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BTSC-100

Aural stereo demodulator, decodes 4.5 MHz or aural composite into left, right, and SAP. At a small fraction of the price of a full stereo modulation monitor, this 1/3 RU unit is at home in cable headends, broadcast facilities, and anywhere else stereo audio is required.

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TVM-821D

Serial digital waveform/ vectorscope with analog audio inputs for all 601 production and post production applications. With buttons and knobs instead of menus or hidden function buttons, the powerful TVM-821D with 12 bit processing is simple to operate and fits anywhere that controls need to be accessible at all times.

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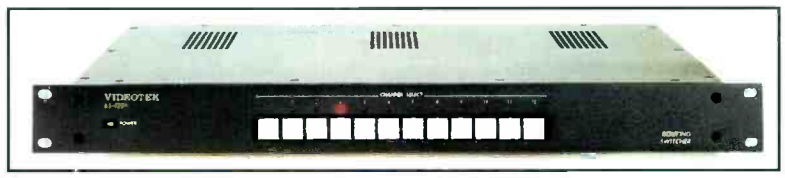

RS-12D

Family of single bus serial digital routers with looping video inputs. The RS-12D lets you monitor signals and then redirect them - without signal degradation. Standard features include twelve looping video inputs, two 601 outputs, high-quality relegendable switches, serial communications, remote and GPI ports, joy stick override, and the ability to pass embedded audio.

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SDR Series

Family of matrix routers for serial digital and analog video and audio. The SDR series features a unique control system that is easy to understand and easy to use. Programmable alpha-numerics and a unique FROM/TO control scheme keep things simple for experts and novices alike.

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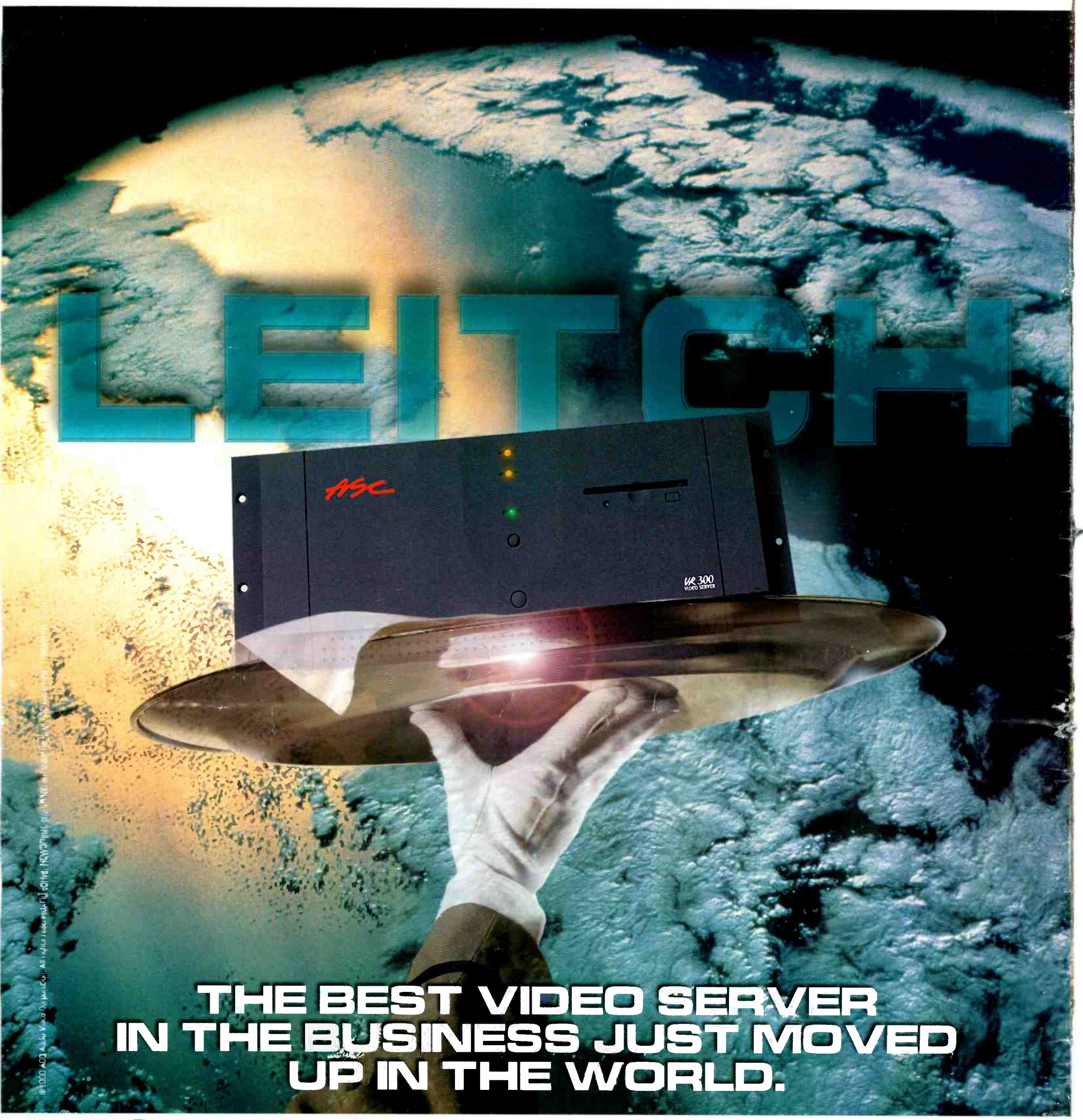

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