

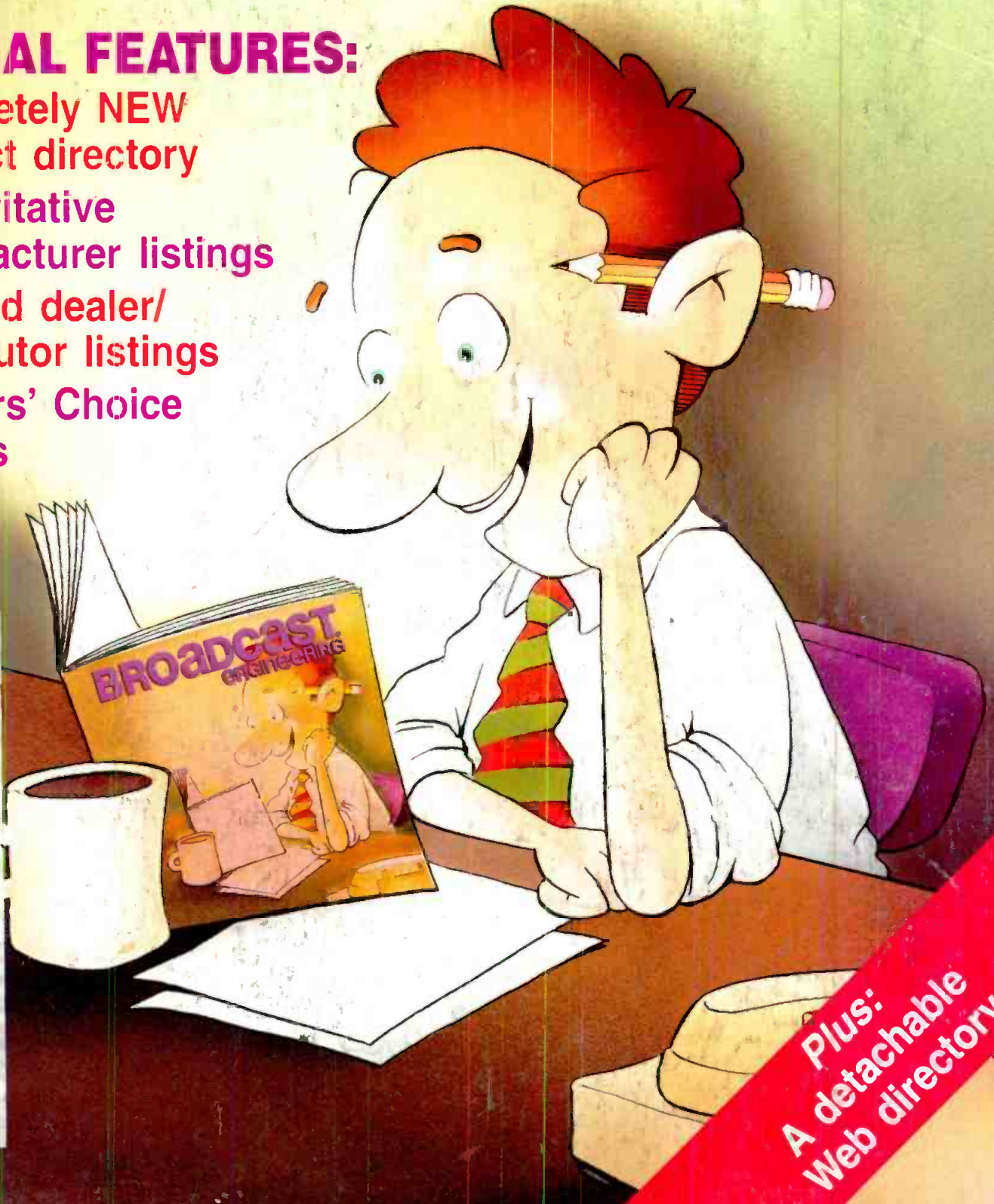
BROADCAST[®] ENGINEERING

A INTERTEC/PRIMEDIA Publication
December 15, 1997/\$20.00

1998 DTV Buyers Guide

SPECIAL FEATURES:

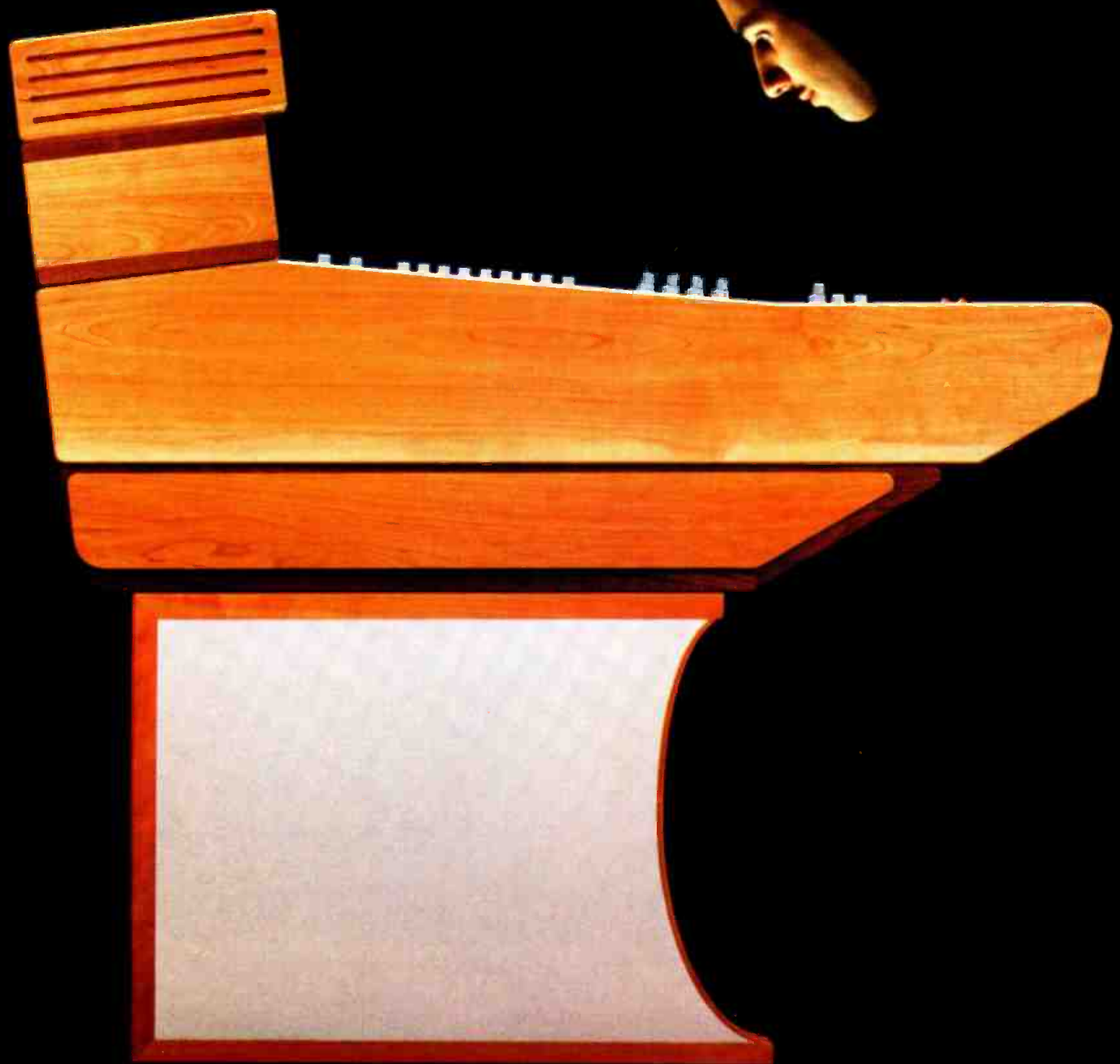
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- Authoritative manufacturer listings
- Detailed dealer/distributor listings
- Readers' Choice awards



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THE TRUTH ABOUT DTV

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Conflicting leadership claims can blur your view of the right DTV partner — *until you look at the facts.* For the widest range of proven technology, complete end-to-end solutions, and unrivaled long-term

support, there is only one leader... *and it is unquestionably Harris.*

Harris offers the widest range of proven technology.

Harris provides every step in the digital path — studio, transmitter and antenna. In 1993, we delivered the first NTSC-DTV broadband antenna. We have more UHF, VHF and DTV transmitters on-air in the US than any other manufacturer, *by far.* We offer a full range of transmitters...VHF, UHF, Solid State, IOT, low to high power...and the only complete 8-VSB exciter. **Only we can provide all of this DTV technology right now!**



Only Harris manufactures a complete DTV exciter.

The Harris CD 1 is the world's *only* commercially-available 8-VSB exciter. It has amassed thousands of hours of problem-free on-air operation. Its patented technology generates a superior signal, and virtually ensures that the CD 1 will remain the world standard. **Only we can provide the CD 1 DTV exciter right now!**

5 of the first 7 US stations on-air with DTV selected Harris digital transmitters.

On July 23, 1996, WRAL-HD became the first commercial station to transmit HDTV on-air. Their transmitter? A **Harris SigmaCD**. KCTS-HD in Seattle, the first HDTV-capable public station, *also chose Harris.* And WETA in Washington D.C., WCBS

in New York, and Oregon Public Broadcasting in Portland all rely on Harris DTV transmitters. At NAB '97, KLAS-HD used a Harris transmitter to go live as part of the ATSC on-air demonstration. **Only Harris has this depth of on-air DTV experience!**



Harris provides complete end-to-end systems for DTV.

From studio facilities to ENG, SNG, mobile production units, microwave links, satellite uplinks and teleport facilities, Harris can create all-digital and digital-ready state-of-the-future systems. And from single components to complete systems, we back our products with expert DTV assistance. **Only Harris does all this, and does it in-house!**



No other company matches our level of support.

Harris is the only transmitter manufacturer with staffed technical assistance 24 hours a day, 365 days a year, plus round-the-clock parts support. Our multi-million dollar inventory can meet your demands quickly. And no other transmitter company offers a dedicated training center with general and product training programs. **Only we provide this high level of DTV support!**

Put Harris to the test.

Before you stake your station's future on a promise, ask your prospective partners to prove their claims. **For tried and true solutions that best prepare you for tomorrow, solutions that only we can provide, contact Harris today.**



From left to right: CD 1, 8-VSB Exciter; DiamondCD™ UHF Solid State DTV Transmitter; SigmaCD™ IOT UHF Transmitter; Diamond™ UHF Solid State Digital-ready Transmitter; Platinum Series® VHF Solid State Transmitters; Ultra 1 Low Power Solid State UHF Transmitter.

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ON THE COVER: The FCC's decision to fast-track DTV created more job security for broadcast engineers than anyone expected. To help succeed with the task, the 1998 Buyers Guide provides detailed information on the products and services you'll need. Cover artwork by Dan Regan. Design by *Broadcast Engineering's* art director, Stephanie Masterson.



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editorial

Welcome to *Broadcast Engineering's 1998 Buyers Guide*. As we all struggle to implement DTV, engineers are faced with the need for accurate and up-to-date sources for new products and technology. This year's Buyers Guide puts more than 500 of the latest new products and services at your fingertips. Broken down into 20 product categories, you'll find the solutions



to the challenges of building your new DTV facility. Each product listing contains a brief description and, in some cases, an accompanying photo. To make product location even easier, consult the index on page 4. The advertisers' listings in this issue are highlighted in red.

New this year are the Readers Pick Awards. Shown on page 79, these are the highest rated new products and services as measured by reader service card responses during the past 12 months. Don't miss these hot new products!

Today, many find the Internet to be a wealth of information. To make it easier for you to locate key manufacturers and vendors, we have included a list of Web addresses on a handy tear-out sheet. See page 83.

Research shows that our readers keep their *Broadcast Engineering* buyers guides for more than a year. However, if you manage to wear yours out, you might want to look at our Web address: www.broadcastengineering.com for the latest updates in product and industry information.

Steve Epstein, technical editor

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If you haven't already taken these out for a test drive, here's your chance.

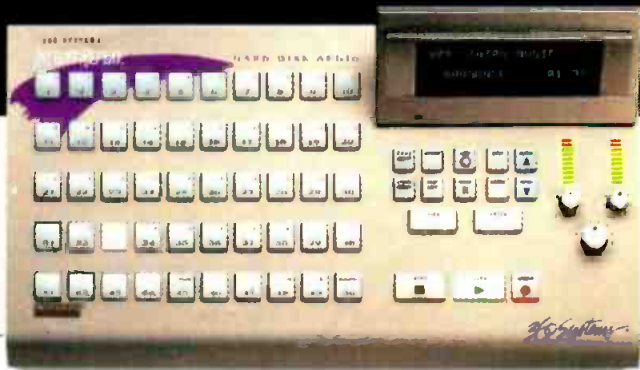
Short/cut™ Editor

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.

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Product Directory

Audio Accessories & Backhaul

Audio Processing Technology (APT)

Now offers the NXL256 and BCF256 for sending full-duplex digital audio over dedicated lines or STL systems that can support transmission bandwidths from 56kb/s (for 6.8kHz mono audio) to 256kb/s (15kHz or 20kHz stereo). The systems use the company's well-known apt-x coding. The NXL256 is a 1RU basic device, while the BCF256 at 2RU offers additional interface options and possibility for integral ISDN backup.

Comrex

Has three new products, including the Hotline POTS codec, which can provide up to 10kHz of full-duplex audio (with a modem connection of 33.6kb/s), using a proprietary algorithm written specifically for the low bit rates obtainable on analog telco lines. Also, the Mix-Minus Bridge, which can create and conference up to five mix-minus feeds. A rack-mount version of the NEXUS ISDN codec is now available.

ESE

PC-471 is a plug-in PC card that hooks to your house master clock system and synchronizes the PC clock to the master using either the ESE or SMPTE time-code format.

Gentner Communications

Has three new telephone hybrid products. The SPH10 analog hybrid replaces the SPH-3 and adds such features as a built-in monitor amp. The DH20 replaces the DHA-1A digital hybrid and features improved 16-bit DSP technology, selectable automatic gain control, automatic mix-minus bus, auto-answer/disconnect and monitor amp. The DH22 has the same features, but adds a second digital hybrid.

Henry Engineering

Audio Online can handle up to 16 incoming phone lines simultaneously. Callers can select from a menu of messages and hundreds of messages can be available to callers.

JK Audio

Has a host of devices to help you interface a telephone to an audio source. The RemoteMix 3 is a small audio mixer that can attach to a POTS telephone line, modular handset cord or even a cellular phone

(with the proper fax/modem adapter from your cellular dealer). It has two XLR mic inputs, RCA line in/out, XLR-balanced output, VU meter, dial keypad, built-in monitor speaker and microphone.



Sennheiser

RS-8 wireless headphone system features a 900MHz transmitter and HDR-8 stereo headphone with an integral receiver. The headphones can be operated for up to three hours per charge on internal NiCad batteries. The system features three switchable frequencies and offers a range of up to 250 feet. The RS-6 wireless headphone system is similar to the RS-8, but intended for a more casual user.

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Shure

The Personal Stereo Monitor System is available in hardwired and UHF wireless versions. The PSM600 can be used in one of three modes: mono, stereo or Shure's exclusive MixMode. The PSM systems offer superior sound quality and reliability, as well as complete control over mix volume and balance.

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Winsted

File Server Station is a steel, open-frame shelf unit that features space for multiple servers/monitors/keyboards, pull-out shelves and extensive cable management capabilities.

Wohler Technologies

Makes monitoring digital signals easy. A

series of rack-mounted, self-powered speakers come in a number of configurations that permit monitoring and metering of analog, AES3 and/or SDI signals. These units can also be used as digital-to-analog converters. Other products include a line of stand-alone audio D/A converters and an audio error alarm system that can remotely report error conditions on up to 800 digital or analog stereo channels.

Zero Stantron

Stock 200 vertical cabinet is fully welded. Standard features include a 78"x30" vertical frame, two removable solid side panels, removable solid top panel, two pair of fully adjustable mounting angles and a pontoon base.

Audio Processing, Recorders & Storage Media



360 Systems

Has changed its familiar DigiCart, to the DigiCart II Plus, which now supports up to two internal hard drives (instead of just one) and ZIP-drive removable media. An updated the Shortcut hard-disk recorder/editor now provides a SCSI interface, which also allows it to write ZIP discs that can be used with the DigiCart II Plus.

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Denon

Line of recording and playback devices now includes the DN-M1050R, a rack-mountable Mini-Disc recorder/player with all the features. Also available is a Hot-Start feature that allows up to 20 tracks to be loaded into memory for instant playback. The DN-C680 is a CD player with a jog shuttle wheel, AES3 output, XLR-balanced and RCA-unbalanced analog outputs and a large fluorescent display.

Eventide

Product line includes profanity delays and the recently released DSP4000B production Ultraharmonizer. The DSP4000B includes numerous presets, and with the

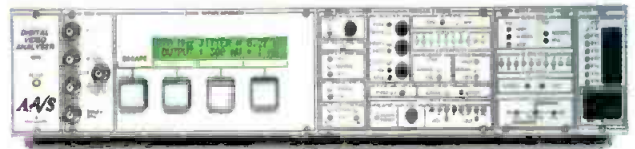
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AT951 ATSC Stream Player

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



SV953P MPEG-2 Portable Transport Stream Analyzer

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SENCORE

Product Directory

built-in flash card reader, program cards can be loaded for additional effects.

Fostex

Products include the D-90 and D-160 removable hard-disk recorder/editors. The D-90 is an enhancement of the D-80 8-track with additional ADAT functions, better A/D converters and a larger hard drive. The D-160 has 16 tracks, time code and a SCSI interface. Also from Fostex is the DMT-8VL, a self-contained 8-track recorder/editor/mixer.

Otari

DTR-8S Pro DAT machine supports sample rates of 32kHz, 44.1kHz and 48kHz. An added feature is the ability to monitor the input without a tape being loaded in the machine.

Sonifex

Courier is a portable recorder that uses PCMCIA cards. This recorder is designed for field use with stereo analog XLR inputs and outputs and an AES3 output.

Internal editing and ISDN transfer capabilities are also offered.

Sony Electronics

Continues its commitment to the Mini-Disc format with products including the MDS-35 recorder and MDS-B6P player. Both have cart machine-style layouts for broadcast. Also new to the Mini-Disc line is the MDM-x4, a 4-track recorder/editor. New to the DAT line is the PCM-R500 mastering DAT recorder and the PCM-7040 time-code DAT recorder.

Superscope Technologies/Marantz

PMD350 is a rack-mounted cassette deck and CD player combo. Each section has independent unbalanced audio connections, with an optional balanced XLR kit and an additional combined output. Remote control, cassette vari-speed and CD digital output are some of the additional features.

Symetrix

628 digital voice processor is modeled

after the 528E and adds the quality of DSP to its power, allowing for multiple presets.

TASCAM

Has added two products to its family of audio recorders. The DA-302 is a unique double-well DAT deck. Each section has fully independent transport controls and audio connections, and the unit can also perform internal 2X speed dubs or "relay" (i.e., continuous) recording/playback, with sample rates of 32kHz, 44.1kHz or 48kHz. The DA-98 is an addition to the DTRS line of recorder/players. New features include off-tape monitoring (selectable by track), switchable reference level, 20-bit conversion and full parallel remote control.

Yamaha

Has released the REV500. It is a 1RU multiple-effect reverb that uses a high-quality, third-generation DSP chip used in several of its other Yamaha products.



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ADC

Has improved on its QCP punchdown system with the introduction of the QCPII quick connect punchdown technology. The blocks are now insulated on both sides to allow pre-lacing of wiring and permit one-handed setups. Deeper channels allow up to four wires to be punched on a terminal, and there's a new punch that doesn't require the proper orientation before punching.

Audio Accessories

Has a line of standard and pre-wired audio patch panels, plus a nice selection of patch cords and holders. The company also carries video and RS-422 patching equipment.

Audio Precision

SWR-2122 series of audio switchers can be configured to allow for large-scale production testing of audio devices. This switcher occupies one rack unit and is available in balanced XLR and unbalanced BNC connector configurations. The standard 2x12 arrangement can be cascaded to 16 units that allow up to 192 channels to be addressed.



CANARE

Has a full line of high-quality cables, connector reels, snake systems and tools for audio and video applications. Tools include handy crimpers and cable strippers, while the cable line features a wide spec-

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The Prism Sound DSA-1 AES/EBU interface test system provides *unique generator and analyser capabilities* enabling the *most comprehensive* assessment of AES/EBU interconnections.

For example, the DSA-1 can measure differences between *source and cable jitter*, or it can *simulate* either sort with its *signal generator*.

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Product Directory

trum of colors and the well-known Star-Quad design for maximizing common-mode rejection.

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Clark Wire & Cable

Products include Bittree patching systems and a wide range of analog and digital cables in single and multicore versions.



Clear-Com Systems

New Matrix Plus 3 digital intercom system uses distributed digital signal processing to connect up to 200 full-duplex ports for voice and program audio. Variable individual listen levels are available at each station, with adjustable dip control on IFB interrupts. The level of each input/output port is also variable. Various modules can be used to interface 2-way radios, telephones and 2- or 4-wire equipment.

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Fidelipac

DMR-4x1, is a 4-input/1-output AES3 combiner. This unique product is ideally suited for applications where multiple AES3 channels need to be combined into a single feed.



Gepco International

7537 super trunk cable is designed for digital audio distribution. Up to 50 channels of AES3 audio can be carried at distances up to 2,500 feet with a bandwidth of 450MHz. It's available with five, 10, 12 and 25 color-coded 75Ω coax cables per bundle. Also offered is a low-loss miniature serial digital coaxial cable, model 7538, which uses gas-injected foam technology to provide extremely low signal

loss. This 75Ω cable is 0.159 inches in diameter and weighs 14.3 pounds per 1,000 feet, making it attractive for mobile production truck applications.

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Leader Instruments

Has two new CD/CD-ROM jitter meters. The LE-1853 and LE-1854 jitter meters facilitate the optimization of disc mastering and multimedia player systems. The LE-1853 handles CD-ROMs up to 8X operating speeds, while the LE-1854 manages up to 12X operating speeds. Leader also offers the LG-3226 synthesized signal generator, with fully programmable operation from 100kHz to 2GHz. Its dynamic range of -133dBm to +13dBm facilitates testing of sensitive receivers.

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Leitch

XPlus series of routing switchers is an AES3 16x16 module with an optional quiet-switching output for clean, noise-free switches. The XPlus uses 1RU and 2RU mounting frames for installation of various modular components. AES3 and analog audio modules can be installed in the same rack unit and expanded with the use of multiple frames. New to the Xpress series of monitor routers is the 12x1 serial digital video and analog stereo audio units. The VIA32 series of routers can be configured for 32x32 distribution of serial digital video, AES3 and analog audio. Leitch also has added products to its AES Glue family — a series of versatile plug-in audio modules that address a wide variety of analog/digital signal processing, distribution and routing needs. The DAR-6880 digital audio reference/tone signal generator combines timing functions and a full-function audio tone generator. The ADC-880 and ADC-6880 are low-cost/high-performance 20-bit A/D converters.

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Mohawk/CDT

Products include the new Spectrum AES3-compliant cables for digital audio applications. Both single, double and multipair

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does it all?



16x16 Serial Digital Video Routing Switcher

YC/Super VHS Distribution Amplifier

Digital Distribution Amplifier

Video Routing Switchers

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Telect's VersaFrame™ 2000 is your all-in-one modular frame for professional audio and video signal management. The uniquely flexible **VersaFrame™** supports both analog and digital audio/video equipment, all with "hot swapping" capabilities to allow reconfiguring without shutting down the system. Individual modules dock in the **VersaFrame™** for easy custom system configuration. Only one audio/video frame does it all—**Telect's VersaFrame™ 2000!**

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—Carlos Gonzalez, Island Systems System Integrator for Hard Rock Café installations



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Product Directory

configurations are available. Other products include a new line of audio breakout boxes designed for the critical demands of remote field use. Units are available in eight-, 12-, 16- and 32-channel constructions. The 8- and 12-channel are standard and use 37 contact interconnect connectors and black-and-gold XLR panel connectors. The 16-, 24- and 32-channel constructions are available by special order.

Neutrik USA

Has a new line of XLR panel receptacles. The A and B series offer the smallest XLR available, with a 0.90-inch center-to-center mounting density. The A series units are constructed in plastic, while the B series has a metal shell supplied in nickel or black finish. Both are available in a PC vertical or horizontal mount and left or right horizontal mount.

Neutrix Cortex Instruments

NC10 digital sound and noise analyzer is the industry's first hand-held, battery-powered, psychoacoustic loudness analyzer, capable of providing live loudness calculations. Standard features include a precision sound level meter, third-octave spectrum analyzer and a data logger with 340MB capacity. Optional software modules provide frequency-selective reverberation time calculations and FFT analysis.

Nvision

NV3064SA allows for synchronous AES3 digital distribution. AES3 audio can be switched cleanly without the clicks and glitches normally associated with asynchronous routers. The NV3064 uses proprietary ASIC technology to provide error-free crosspoint transitions. System architecture allows a 32x32 router to be expanded to a full-framed 64x64 with the addition of an I/O card. Also from Nvision is the NV1025 AES3 distribution amplifier (with EQ, jitter removal and re-clocking), the NV1035 AES3 20-bit analog-to-digital converter and the NV1050 AES3 sample-rate converter that can simultaneously convert multiple AES3 inputs of different sample rates to a common output rate.



PESA Switching Systems

Now offers the Ocelot family of routers. The basic system is built on 8x8 and 16x16 matrix sizes that are housed in a

compact 1RU chassis. X/Y control is provided by front-panel operation, with Windows-based computer control available via RS-232/RS-422 serial interfaces. A total of seven Ocelot switchers can be addressed via a single RS-422 control port.

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Prism Media Products

Has version 2.0 software for the Prism-Sound DSA-1, a hand-held AES3 test system. The unit includes generator and analyzer capabilities, allowing it to examine electrical, timing and data-content parameters of AES3 signals and paths. An AES11 reference signal input is also provided for time-base measurements and synchronization of the internal generator. Prism's Dream DA-1 and AD-124 are 24-bit D/A and A/D converters.

Tektronix

Has two new options for its 764 digital audio monitor. Option 01 adds a serial digital video input with embedded audio demultiplexing. It provides operators real-time monitoring of audio level, data and phase relationships. The logging and reporting features provide continuous monitoring of groups of four channels of audio activity. The Option 02 analog line output can be used to drive an audio amplifier, allowing the monitoring of one stereo pair of any of the various inputs provided to the 764.

Telect

Product line includes a full range of audio DAs, routers and digital converters, as well as its audio patch panels, fiber-optic distribution and associated hardware. The company also specializes in cable management systems for a number of different industries including telecommunications and broadcasting.

Circle (109) on Free Info Card

Telex Communications

RadioCom line of UHF wireless intercom systems includes the BTR-600, a 2-channel, encrypted digital system that provides secure system transmissions via UHF base stations. Operations are fully agile in the 524MHz to 608MHz and 614MHz to 746MHz frequency bands. A cipher code provides 65,536 possible combinations of encrypted delivery.

Whirlwind

Q-Box is a battery-powered audio line tester capable of performing various checks on microphones, speakers and cabling. A source selector allows the selection of a built-in condenser mic or 440Hz tone generator that can be used to talk back up

the line at +4, -20 or -50dB levels. A speaker selector can be used to confirm mic or line levels and test dynamic microphones. Outputs for standard headphones are provided, as well as voltage-presence monitoring for phantom or intercom power.



Acrodyne

The AU-DTV20, a UHF transmitter, delivers 20kW average output power from a single Diacrode. The Diacrode will be the starting point for the Acrodyne high-power solid-state transmitter system. The AU-DTV 15 Gold series can produce 15kW average power using a single Diacrode tube. Acrodyne is engineering the DTV transmitter system with cooperation from Zenith, who supplied the 8-VSB modulator.

Comark

Has a complete line of DTV transmitters, including the new Optimum series of solid-state UHF and VHF DTV transmitters, with power levels up to 500kW. Comark also offers the UHF Advantage high-powered IOT transmitters, capable of up to 200kW. For existing UHF broadcasters who have received a UHF DTV channel assignment, look into Comark's IX dual-use analog/digital transmitters. Comark Digital Services (CDS) offers turnkey digital broadcast solutions.



Harris Corporation

The Diamond CD series of DTV transmitters are solid-state UHF units available with either the Westinghouse silicon car-

Toshiba Introduces

The World's First...



3 Chip, 10-Bit, Remote Head, Digital P.O.V. Camera.

The New IK-TU40A Makes All Other P.O.V. Cameras Obsolete!

Toshiba's new IK-TU40A is 3 chips off the old block. It makes any other P.O.V camera obsolete by utilizing Toshiba's revolutionary ten-bit DSP architecture, combined with three 410,000-pixel CCDs. The result is a breathtaking 750 horizontal lines of resolution and 62dB signal-to-noise ratio for the brightest, sharpest color video in the industry.

This ice-cube size camera head delivers broadcast and industrial quality performance in a lightweight, compact package. Plus, its remote head design allows it to be mounted virtually any-where for an entirely new perspective.

With the addition of a wireless transmitter, you can capture all the excitement of world-class skiing or Indy car racing from almost any angle. The IK-TU40A also provides you with a critical edge in industrial applications like pattern recognition, mechanical manipulation and measurement, or any other application where weight and size count.

The IK-TU40A camera accepts C-mount lenses and has video outputs for NTSC, S-VHS, R-Y/B-Y and RGB. A 10, 20, or 30 ft. detachable cable, RS-232C personal computer interface for total control of all camera functions. To get the whole picture, call Toshiba at 1-800-344-8446.



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Imaging Systems Division • Imaging Video Products Group
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Product Directory

bide transistors or the RF LDMOS Motorola transistor. Harris' CD-1 exciter uses a non-linear digital corrector to offer linearity correction over upper and lower adjacent channels. The exciter's 32dB signal-to-noise ratio guarantees transparent transmitter operation. Harris also has VHF DTV transmitters. The Platinum CD series is a combination of a FET solid-state VHF transmitter and the CD-1 exciter. Harris' Ultra-1 low-power DTV transmitter is a 1kW, solid-state unit.

Circle (110) on Free Info Card

ITS

Offers solid-state digital UHF transmitters. The 8800 series offers power levels up to 5kW average power, with an advanced feed forward amplifier and a completely redundant system of power amplifiers, exciters and power supplies.

Larcan

Has a new digital IOT transmitter called the Landmark, a dedicated UHF DTV transmitter, and also plans to manufacture a VHF DTV transmitter. The Larcan control architecture employs multiple microprocessors in a distributed network using a fiber-optic LAN within the transmitter. The LDMOS devices employed provide higher power with less intermodulation distortion, as much as 10dB better than FET devices.

Panasonic Broadcast & Television

Has DTV cameras and production equipment including switchers and videotape recorders. Among these products are 1,125/60 interlaced advanced cameras and the D5/HD processor combination.

Snell & Wilcox

Products include the HD 50 upconverter, which upconverts standard-definition images to high-definition.

Sony Electronics

Products for DTV include the new HD-CAM format, which includes portable and studio decks and cameras.

Broadcast Cable Equipment

C-Cor Electronics

Has a digital fiber-optic transmission terminal system for digital pulse code modulation (PCM) of up to 32 video channels per optical wavelength. Terminals support NTSC, PAL or HDTV, while offering drop-and-insert capabilities along with scrambled CA formats transport at variable delay without degradation through the end of the line. Their optical terminals operate at speeds from 194Mb/s to 3.1Gb/s for transmission of broadcast-quality video, as well as DS3 data transport.

Channelmatic

MVP (managed video playback) offers automated management of digital content distribution and insertion.

News Digital Systems (NDS)

Has an MPEG 4:2:2 and encoder for professional broadcast use with fully flexible bit rate and GOP structure, redundancy switching and mixed 4:2:0 and 4:2:2 operation. Reflex is a real-time statistical multiplex management system featuring efficient variable bit-rate management and automatic rescheduling.

Optivision

Has a high-speed quad gen-lockable MPEG-2 decoder for real-time digital ad insertion and multichannel pay-per-view systems.

Pace Micro Technology

Products include the DVC200 digital video cable receiver for conditional access. The DVC600 digital cable receiver supports a wide range of broadband interactive services, everything from home shopping to PPV VOD ordering. The unit has an RS-232 port for connection to personal computers along with an internal v32 phone line modem.

StarGuide Digital Networks

Now offers Local Media Insertion Technology (LIMT) for the real-time distribution of interactive store-and-forward advertising, as well as short-form programming.

Tektronix

DDS200 digital demodulation system for monitoring the quality of DVB-C modulators, is the first specifically designed for cable. The system includes a QAM analysis tool (four to 256 QAM) along with automatic measurements of such parameters as I/Q amplitude and phase jitter. An adaptive equalizer evaluates transmission path problems.



Trompeter

Trompeter's newly re-engineered high-performance PL130 F-series connector offers many advantages over ordinary F-connectors: one-piece integrated center contact pin and low return loss, <-23dB at 2Ghz, an improvement better than 28% over results of competitive products.

Circle (111) on Free Info Card

Vela Research

Has multichannel decoders, based on SCSI-2 Fast/Wide architecture.

Wavecom

Cable TV modulators feature bidirectional amplifiers specifically designed for interactive TV systems. Wavecom also has a high-speed, spread-spectrum cable modem.

Check out the
Broadcast Engineering website at:
www.broadcastengineering.com

DIGITAL TELEVISION SYSTEMS



“Harris created an all-digital facility that let us double saleable inventory, and they did it at a near-analog cost.”

Robert Allbritton, Chief Operating Officer, Allbritton Communications

When Allbritton Communications wanted to reach two television markets from a single location, Harris incorporated a centrally located all-digital studio with microwave links to three transmitters over 100 miles apart, two remote news bureaus and 3 additional

microwave repeater sites. This solution enables Alabama's ABC 33/40 to blanket the state with city-grade signals.

“Harris' digital solution gives us multichannel capabilities which allow

us to offer four distinct channels to advertisers,” Robert Allbritton notes. *“Not only do we now have twice the product to sell; we have the ability to broadcast DTV as soon as we're ready. What's more, Harris designed and implemented our digital solution faster than we ever thought possible – and at a cost only 10-15% greater than analog.”*

From an all-digital studio and C-/Ku-band teleport facility...to a fleet of Harris ENG and SNG vehicles that

proudly bear the ABC 33/40 logo, Harris met Allbritton's unique challenge with state-of-the-future technology.

Whether your needs call for digital-ready analog, or digital right now, call Harris today. We'll show you how digital is more of a practical reality than you may think.

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Satellite Uplink — Television Production — Television Transmission — Terrestrial Microwave

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www.americanradiohistory.com

Product Directory

The Anton/Bauer InterActive 2000 system featuring PowerChargers and the new Digital HyTRON battery.

The InterActive 2000 PowerChargers include such standard features as lightweight modular design, camera operation from mains, expandable charge modules and LCD display. The latest addition to the Anton/Bauer InterActive 2000 product line is the Digital HyTRON 50 battery. The HyTRON 50 battery is lightest, smallest, highest density battery available which can be charged on all Anton/Bauer InterActive 2000 PowerChargers and late model Logic Series Anton/Bauer chargers.



Digital ProPac and Digital Trimpac batteries. The Digital ProPac 14 is the industry standard battery recommended for all video applications including lighting and high wattage applications and carries the longest battery warranty available. The Digital Trimpac is extremely thin and lightweight and is designed for applications where size and weight are the primary considerations.

Anton/Bauer Inc. • One Controls Drive • Shelton, CT 06484
Tel: (203) 929-1100 • Fax: (203) 929-9935 • www.antonbauer.com



Cameras & Lenses



Angenieux

Digital broadcast lens 15X8.3AIF (f/1.7, 2/3-inch) has assisted internal focus (AIF). The lens is compatible with 16:9 format with optional accessories. Angenieux's Cine Digital Kit offers cinematographic control with a camcorder lens.

Circle (112) on Free Info Card

Anton/Bauer

Development of the Hytron 50 battery has been made possible by advancements in a cell technology designed originally for the mobile computing industry. The nickel metal hydride (NiMH) cells provide one of the highest energy densities of any rechargeable cylindrical cell available. Anton/Bauer supplies microprocessor battery and charger systems to the broadcast and video industries.

Asaca/Shibasoku Corporation of America

Has its Executive Suite series, the ES-42, a 42-inch flat panel display, and Media Suite HDTV monitor, the MS-32. The CM202H reference-quality monitor offers digital control features and remote control setup.

Complex Concept W Corporation

CP-301B is a high-performance, low-cost, bidirectional multiplexing system that uses a 75Ω coaxial cable to simultaneously send the composite video audio and data signals, along with the camera power required. It reliably passes more than 600 TV lines of resolution and is field-adaptable to any NTSC and PAL broadcast or industrial color camera.

Canon USA, Inc.

Has made its internal focus (IF) technology available to pro-video with two new lenses, the YJ18X9B KRS 2/3-inch, 9-162mm zoom lens and the YH18X6.7 KRS 1/2-inch, 6.7-121mm lens. Both feature a minimum object distance of 0.9m for close focusing. Canon's IS-20B II image stabilizer adapter can be used with most popular Canon IF lenses for broadcast-quality, shake-free images.

Century Precision Optics

Has a variety of lens adapters, including a 0.65X wide angle adapter for zoom lenses, a 0.6X non-zoom wide angle adapter and a 1.6X teleconverter.



Fujinon

High-end A10X4.8EVM/ERD wide power lens provides a 90° horizontal range of view in the 16:9 format. Other new lenses include the standard A15X8 and the stan-

ard telephoto A20X8. All use Aspheric Technology to reduce distortion at wide angles, improve corner resolution, reduce glare and reflections, and allow chromatic aberration to be managed throughout the zoom range.

Circle (113) on Free Info Card

Hitachi Denshi America Ltd.

Has the Z-2010, a 2/3-inch, 3-CCD portable digital camera with one full f-stop more sensitivity than its predecessor, the Z-2000A. Hitachi's SK-3000P HDTV camera operates in a 16:9 format and provides simultaneous HDTV and NTSC outputs. The 1.5GB/s digital output from the camera head is brought to the CCU via optical fiber cable. At the CCU, the data is digitally converted to NTSC (16:9 or 4:3) and serial digital component outputs, in addition to the standard digital HDTV output. Hitachi also has the Z-V1, a high-sensitivity, 1-piece camera/recorder using the DVCPRO tape format. The SK-2060PW is a cost-effective EFP camera switchable between 16:9 and 4:3 aspect ratios.

Ikegami Electronics

Product line includes the HDK-790 studio camera and the HDK-79 portable camera, both fully digital, employing three 2/3-inch, 2-million-pixel CCDs. The CCU incorporates a down/upconverter, allowing input and output of HDTV and NTSC signals. The HK-525 studio/field and HL-525P portable companion digital cameras support progressive scan and NTSC and are switchable from 16:9 to 4:3 format. The HDL-10 is a single-chip, 2/3-inch, 2-million-pixel ultraminiature HDTV camera, and the HDL-37 is a 3-chip, 2/3-inch, 2-million-pixel compact HDTV camera. Ikegami's HL-45 lightweight digital portable camera features 520,000-pixel, 2/3-inch IT CCDs with 900 TV lines of resolution and a 62dB signal-to-noise ratio.

THE
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SHURE UHF WIRELESS

This is as good as it gets.

The new Shure UHF Wireless delivers everything you'd expect from a premium-quality UHF system. And then some.

Like programmable LCD displays on both transmitters and receivers. A generous 191 channels of frequency-agility. The flexibility to perform flawlessly in practically any application. And the built-to-last reliability you expect from Shure. All at a fiercely competitive price. You patiently waited for it. Now it's waiting for you.

To learn more about the new Shure UHF Wireless System, call 800-25-SHURE.

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Product Directory

JVC

Camera line includes the KY-D29, a 3-CCD, 14-bit digital signal processing camera. JVC's exclusive 3-D DNR dramatically reduces visible noise, allowing a 65dB signal-to-noise ratio. The KY-D29 can be docked with JVC's BR-D40 Digital-S recorder.

NEC

Its DP-850 high-sensitivity digital portable camera with dockable Diskcam digital optical video disk recorder with 4.1GB per side has a recording capacity of 20 minutes.

Panasonic

Has the new, lightweight AJ-D800 high-performance DVCPRO digital camera/recorder. It uses three 2/3-inch CCDs, features 10-bit digital signal processing and offers a 63dB signal-to-noise ratio. The unit requires a minimum illumination of 0.5 lux, consumes less than 24W of power and weighs less than 13 pounds.



Philips

The DK-20 and the portable LDK-20P high-resolution digital camera systems use Philips' Frame Transfer (FT) sensors for no-smear, no-lag performance. These chips can handle exposures up to 600% above normal video levels. With 12-bit A/D video conversion, the cameras offer 24-bit HiRes digital internal processing and produce the equivalent of 800 TV lines of resolution. The LDK-100 digital camera series, built around 12-bit A/D and 24-bit dynamic digital signal processing, can be converted using dedicated adapters to such diverse configurations as Triax, DVCPRO camcorder and Betacam SP. It operates in either 4:3 or 16:9 format, switchable at the touch of a button.

Circle (114) on Free Info Card

Schneider Optics

Products include reflective and absorptive neutral density filters, diopters and split diopters, clear water-white optical flats,

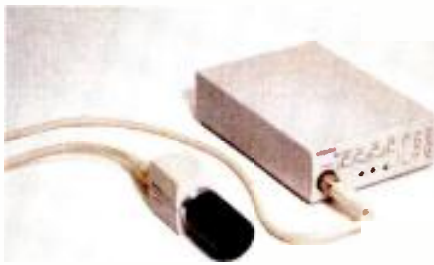
corals, color combinations and the True-Polarizer as well as special brass rings, which prevent cross-threading or binding on the front of ENG lenses.

Sony Electronics

DSR-PD1 uses a 1/3-inch color CCD with 680,000 pixels. Specially designed for the DVCAM format, it includes a 2½-inch Swivel screen color LCD, an advanced color viewfinder and supersteady shot picture stabilization. Sony's High-Definition Video System (HDVS) produces images on a par with 35mm film. The HDC-700 high-definition studio/OB camera uses Sony's HAD FIT CCD imagers, along with the HDC-750 portable digital HDVS camera. The HDW-700 digital widescreen high-definition camcorder, is a full 2-million-pixel RGB camera that incorporates a new 2/3-inch CCD design, is expected to be available next spring.

Thomson Broadcast

Family of 12-bit digital cameras are based on the 1657D, which is available in several configurations, such as camcorder, conventional portable camera, Microcam or Sportcam. The Microcam is a 1657D with the CCD block mounted remotely. The camera body and scanning assembly are linked with a 26-pin cable. The Sportcam configuration allows a portable camera to be transformed into a multifunctional unit that can be used for sports coverage, field production or in the studio with a teleprompter.



Toshiba

Has the IK-TU40A, a 3-chip, 10-bit, digital P.O.V. camera that features 10-bit DSP architecture combined with three 410,000-pixel CCDs. The result: 750 horizontal lines of resolution with a 62dB signal-to-noise ratio for bright and sharp color video.

Circle (115) on Free Info Card

Digital Audio Workstations

AMS Neve

Has a trimmed-down 16-bit version of AudioFile called AudioFile Prolog. Designed for a range of editing functions, including operating as a feeder system for larger 24-bit Audio File/Logic mixing systems, the Prolog supports 16 channels with six hours of storage, includes a comprehensive ADR package and can be upgraded in a variety of ways.

Digidesign

Pro Tools 4.0 software uses native PowerPC programming and supports the new PCI and NuBus-based Pro Tools III, Pro Tools Project and Audiomedia hardware. It includes new editing and mixing capabilities, an improved GUI, faster processing and dynamic automation of virtually all TDM plug-in parameters. In addition, the system can be operated using the new Mackie HUI controller. AudioVision version 4.0 features native PowerMac PCI support. Available as an upgrade to Pro Tools III PCI users, the software can read and write Pro Tools 4.0 session files, will operate with the Digidesign Universal Slave Driver and includes CCIR-601 broadcast-quality integrated digital video.

Digital Audio Research (DAR)

Is back with SoundStation Gold and Sabre Plus, both sporting new audible editing features and the Translation Station featuring compatibility with Lightworks and Avid files.

Doremi

Dawn 4 supports up to 48 tracks and the third-party Airworks S/Link software for OMF translation of files and compositions, Dawn 4 also allows control of the Doremi V1 non-linear video recorder/player. The V1 is a stand-alone unit that can be used for VTR replacement by any workstation supporting RS-422 control.

Fostex

Has also added to its range of compact workstations with the D-160 16-track and D-90 8-track units. Both allow simultaneous recording up to the maximum number of channels and support backup via SCSI, DAT or ADAT.

Gentlemen, Start Your Engines...



It doesn't matter if you are covering a local news story or the Super Bowl. There are no second chances in mobile production. Maybe that's why so many mobile trucks are rolling out with PESA Switching Systems routers.

The Cougar 32x32 and Jaguar 64x64 offer high performance and rugged construction in a small footprint. You want to talk about compact? How does a 144x144 Tiger matrix consisting of 12RU video and 8RU audio frames sound to you?

Cougar 32x32
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Jaguar 64x64
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Circle (11) on Free Info Card



Product Directory



Orban

Is offering an upgrade path to the new Audicy which will also be available to existing DSE-7000 users. As with its predecessor, Audicy provides high-speed RAM-based editing, with background shadowing to hard disk or removable Jaz drive. Launched as a second-generation workstation supporting 24-tracks and time code, it features a new contoured mixer/editing surface with assignable controls and effects including Optimod EQ and compression and Lexicon reverb.

Circle (116) on Free Info Card

Roland

"V-Xpanded" version of the VS-880 features an auto-mixing function, effect insertion for master output, 10 additional effects algorithms, a voice transformer and a microphone simulator.

Solid State Logic

Altimix is designed as an integrated 48-track recording, editing and mixing system with non-linear video and dedicated control surfaces, the system is expandable up to 128 channels, supports surround-sound capabilities for all major formats and can be networked with other SSL systems, such as the Axiom and new Aysis digital mixing consoles.

Sonic Foundry

Has a range of new plug-ins for Sound Forge version 4.0. These include the CD Architect for Red Book CD-Rs, the Acoustics Modeler for reverb, support for Microsoft ActiveX plug-ins including Active-Movie, support for RealAudio 3.0 and noise-reduction and spectrum-analysis plug-ins.

Sonic Solutions

Has its new Fibre Channel-based MediaNet FC for uninterrupted delivery of D-1 digital video and multitrack surround-sound audio. The new SonicStudio version 5.3 includes support for four channels of 96kHz 24-bit high-density audio, an extended list of supported CD-R drives and support for the new JL Cooper MCS 3800 motorized moving fader controller.

Studio Audio & Video

SADiE3 software now supports 96kHz, 24-bit sampling and DSP plug-in architecture for both proprietary and third-party processes.

Zaxcom

Deva 4-track recorder comes complete with mixing and monitoring, the battery-powered unit weighs six pounds, supports 24-bit recording and provides 2½ hours of storage to a removable drive that can be inserted into a rack-mount version serving as a 4-track source.



Auditronics

NuStar 3000's intuitive, straight-ahead layout fits 16 faders comfortably. Eight additional universal module positions carry traditional monitoring and other controls. Four large mechanical VUs share the meter bridge with a cue speaker. The main-frame processor accepts any combination of analog or digital input cards.

Euphonix

The latest is the CS3000. The control surface is significantly redesigned from the company's earlier products, and it includes moving-fader automation. A versatile surround-sound option handles any existing format with ease. Formats of the future can also be incorporated by software updates, adding to the console's longevity and value.

EVI Audio

Has repackaged its popular Electro-Voice CO2 lavalier microphone as the CO2 Pro. Eight different cable- and mic-mounting clips are included, along with a zipper pouch. E-V's RE500 is a hand-held, true condenser cardioid mic with a 128dB dy-

amic range. Durability and handling noise issues are addressed by a patented internal shock system and the rubberized grip, factors appreciated in the live performance or ENG trenches. New from EVI's Vega division is a 16-channel, computer-controlled UHF wireless mic receiver, the R-672. It can be used with any fixed-frequency UHF wireless transmitter operating with Vega's exclusive Dynex III companding. To complement the R-672, Vega introduced the T-690 hand-held transmitter and T-772 body-pack transmitter. Several mic heads are available with the T-690, including Shure's SM87 supercardioid condenser and EV's N/D-857S. Both transmitters offer user-programmable channel and microphone gain controls.

Graham-Patten Systems

The product line includes the SoundPals line, a series of low-cost, problem-solving modules for digital audio interface, level-control and conversion. Also, GPS has D/ESAM 230 digital edit-suite mixer, along with some substantial enhancements to the existing D/ESAM 400 mixer.

Mackie Designs

Digital 8 bus mixer is loaded with features: automation, DSP, machine controls, MIDI, built-in hard drive and modem, plus the flexibility for which Mackie is known. Pro Tools users will appreciate Mackie's new human user interface (HUI). Complete bidirectional interaction is possible with Pro Tools 4.0, eight motorized faders, two mic pre-amps, transport/locate functions and a large scrub wheel, plus control room monitor operation and much more.

Pacific Research & Engineering

Has entries in the digital and analog classes. The AirWave is a medium-size (12- to 14-channel) analog board with basic features. Nice touches include combined control room and studio monitor module with talkback, an optional telco module, several neat things under the hood (including a snappy no-tools-required access compartment for easy maintenance), and a moderate price point. At the other end of the spectrum is the digital Integrity. This sleek, highly automated controller allows smooth transitions from show to show with set/save/recall functions, dedicated mic inputs and large LED channel-ID displays. Ten digital input channels come standard with sample-rate conversion and all digital input channels also accept analog signals. A flat-screen display complements the package.

DTV READY



**DTV
READY**

Let's make things better.



PHILIPS



With the advent of a new digital television standard (DTV) now on the horizon, broadcast and production facilities must make careful equipment decisions today. Though this digital television standard brings various new opportunities for the broadcaster, there are several technical issues that must be considered when making equipment selections. These issues include widescreen aspect ratios (16:9), multiple channel distribution, high resolution formats (HDTV), as well as considering the effects of higher levels and multiple generations of signal compression.

Circle (71) on Free Info Card

As a pioneer in the standard setting process for HDTV, a leader in the development of digital television, and a member of the Grand Alliance, Philips has a thorough understanding and knowledge of the technical issues surrounding DTV. These technical considerations have been taken into account by Philips with regards to the design criteria of its current, and future, broadcast television products. This helps to insure that equipment investments made today are prepared for the transition into the digital future.

DTV Ready is the Philips theme, and identification mark, for highlighting our products and system solutions that are ready for these transition issues. Look for the *DTV Ready* insignia on our products and promotional materials to easily identify these "future proofed" solutions, and then...

Prepare your facility for the digital future!

DTV READY Products

LDK10 SERIES CAMERAS

- Instantly switchable between 4:3 and 16:9 (widescreen) aspect ratios - with uncompromising quality and no need for special lenses and/or adaptors.

LDK 20 & 100 SERIES CAMERAS

- Instantly switchable between 4:3 and 16:9 (widescreen) aspect ratios - with uncompromising quality and no need for special lenses and/or adaptors.
- Advanced HiRes Digital processing - offering unprecedented digital quality and low noise, which allows for more efficient compression encoding.



PHILIPS



LDK 10 Series Cameras



LDK 20 & 100 Series Cameras



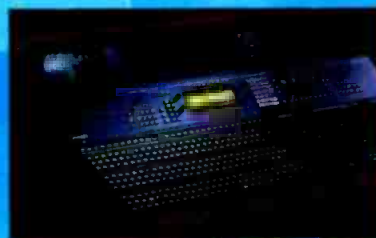
Spirit DataCine Film Scanner



Saturn Master Control Switcher



Media Pool Video Server



Diamond-digital Production Switchers

SPIRIT DATACINE FILM SCANNER

- Real time multi-format, multi-standard film scanner - offers multiple format outputs including 1920x1080 HDTV.
- Multiple aspect ratios (including 16:9) - for standard definition (SDTV) requirements.
- Unprecedented low noise (below the film grain) - for film transfers with superior digital quality and low noise, which allows for more efficient compression encoding.

SATURN MASTER CONTROL SWITCHER

- Multi-channel operation - as many as 15 separate channels of serial digital video (SDV) and AES digital audio can be controlled by a single control console.
- Seamless integration with Philips Alamar station automation systems - for reliable, error-free, multi-channel operation.

MEDIA POOL VIDEO SERVER

- Multi-channel operation - up to 12 simultaneous channels of serial digital video (SDV) and AES digital audio can be available to as many separate users.
- Full bandwidth 270 Mb/s serial digital video capable - to allow for the possibility of recording bit rate reduced (BRR) HDTV signal formats.
- Possible migration to recording of 20 Mb/s DTV encoded signals - for "store and forward" applications such as network time delays and program recording.

DIAMOND-DIGITAL PRODUCTION SWITCHERS

- Switchable between 4:3 and 16:9 (widescreen) aspect ratios - includes effects generator and linearity compensation.
- 10-bit 4:2:2 serial digital video processing - for high quality digital performance and low noise characteristics.

Circle (72) on Free Info Card

Product Directory

Ross Video Ltd.

Offers the CDK 104 telecine switcher. This miniature "stripped down" component digital switcher is designed for the needs of the film transfer suite. Capabilities include side-by-side and diagonal picture comparisons, a linear keyer, a basic chroma-keyer and an interesting method of producing precision letter boxing.

Scitex Digital Video

The 8150 switcher can now include integrated Dveous digital video effects. Users can have the high quality of the Abekas 8100 D-1 switcher and the effects capability of the Dveous in one control panel.

Snell & Wilcox

Magic DaVE has matured, the latest version sports a new control panel with easy-to-use dedicated feature buttons and a group of effects sequence buttons that stores sets of on-line effects, selectable for several different operators. Among the enhancements are new warp-type effects, synchronizing TBCs on the inputs and an optional still-store. DaVE also offers eight- and 10-bit serial digital I/O for integration into component digital suites. Composite and component analog systems also are available.

Sony Electronics

Has expanded its line of 7000-series of digital production switchers. The 3-M/E DVS-7000 and 2-M/E DVS-7200 lines now include models designed for live applications. Functions, such as DME integration, expanded tally and source ID have increased their value for broadcast event production. Sony's DME-3000 digital video effects system has many new effects capabilities. The digital Sparkle option provides such effects as kaleidoscope, explosions, swirls and melts. The Digital SKETCH option offers "painted" effects textures to the picture, such as oil paint, relief and enhanced edges.

Tektronix

Grass Valley switchers include the 3000 composite digital and 2000 and 4000 component digital lines. Various sizes handle any live or post-production need. All high-end models include standard features such as Time Align Editing time line functions, E-MEM effects memory, Chromatte Chromakey and Lamina Image Layering System, which allows up to four key layers on each M/E. The Krystal 4300 DVE system offers features such as Kurl non-linear effects and Trailblazer recursive effects. Operational features include independent function time lines, two global channels and a camera channel to make effects creation as simple or as sophisticated as desired.

Ultimate

Now offers the Ultimatte 8 compositing system. Plug-in software modules are available for Macintosh, Windows NT and SGI computer platforms for software packages, such as After Effects, Premiere, Media 100, Avid, Flint, Flame, Chalice, D-Vision and others.

Switch On

to the new wave of switcher for the new demands of post and broadcast.

The PC-based PVS-2 and PVS-4 compact switchers are loaded with features and can be driven from a familiar format control panel or your own workstation.

Applications include:

TELECINE AND HIGH END GRAPHICS

The PVS-4 is a true 4:4:4 switcher capable of handling both 4:4:4 and 4:2:2 sources.

EDIT SUITES & GRAPHICS

For both M/E and key layering applications, the PVS-2 is ideal for graphics compositing as well as auto conforming.

MASTER CONTROL & PRODUCTION

For applications requiring a compact control panel for preview to air operation, the PVS-2 provides a perfect solution.

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Product Directory

Video Projectors & Presentation

Ampro

3600 Widescreen Retro rear projection monitor is designed for viewing HDTV images on a 54" x 31" screen.

Barco

Projector line includes the BarcoData 9200 and BarcoGraphics 9200 LCD projectors, both of which claim to produce 5,000 lumens. The Data 9200 uses three 756x556 active matrix LCD panels, while the Graphics 9200 uses three 1,024x768 panels. The BarcoData 708 CRT projector has optional auto-convergence, and uses seven-inch CRTs to produce 1,200 peak lumens. It accepts horizontal scan frequencies from 15kHz to 69kHz and has a 75MHz bandwidth.

Digital Projection

Power 4DV claims 3,500+ ANSI lumens using proprietary xenon lamp technology for superior color fidelity, again with the 848x600 DMD devices.

Electrohome

Vista Pro develops 1,200+ lumens, using (three) 848x600 DMD imaging devices for large room projection. Electrohome also has an upgrade to its Marquee 9500 that allows higher scan rates and wider bandwidth.

Extron Electronics

Line quadrupler is the System 4IQex. It accommodates RGB, composite and S-

Video through four inputs and increases the horizontal scan rate to 63kHz. Motion Mode Compensation is used to reduce line multiplier artifacts.

Faroudja Laboratories

Now offers the PV400 Video/PC Scalar, an interface box that digitally converts and gen-locks composite, Y/C, RGB or YUV video to non-interlaced computer displays up to 1,024x768. Vertical refresh rates are optimized for the output display up to 75Hz, allowing overlay of any computer-generated images.

Feral Industries

LD-2000 line doubler offers 8-bit digital processing and built-in TBC. It accepts composite, Y/C and YUV signals. Their QS-400 quad-split processor can be used for multiplexed display.

Folsom Research

9700XL workstation graphics scan converter is among the first to offer serial D-1 output with full gen-lock capability and a wide range of image adjustments.

Hughes-JVC

Products include the 340SC and 370SC image light amplifier (ILA) projectors rated at 4,200 and 6,800 lumens respectively; they also have a 12,000 lumens ILA projector for HDTV applications.



Miranda Technologies

Has the Quartz line quadrupler, which not

only accepts composite, Y/C and component inputs but also 4:2:2 serial digital video. It will line-double signals to 31.5kHz, and all outputs are analog.

Circle (122) on Free Info Card

RGB Spectrum

Has the RGB/View 600 and SuperView 1000 multivideo windowing systems for workstation monitors. The RGB/View 600 can provide up to six real-time video windows while the SuperView 1000 is capable of 24.

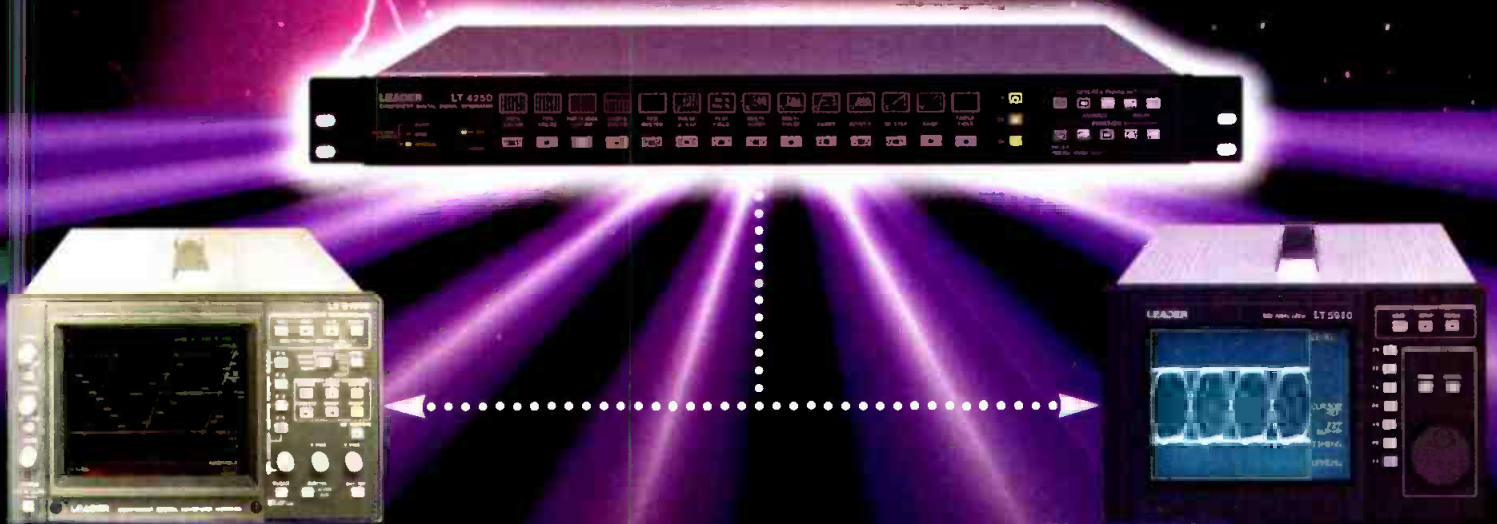
Sony Electronics

VPD-S1800Q employs (three) 848x600 DMD chips and a 1,000W xenon projection lamp for 1,200 or 1,800 lumens, using a normal/high-power setting. Its CRT line includes two multiscan projectors. The VPH-G70Q replaces the VPH-1272Q and uses 8-inch CRTs to produce 240 ANSI lumens, has a bandwidth of 120MHz and maximum resolution of 1,700x1,200. The VPH-D50Q uses 7-inch CRTs and is rated at 160 ANSI lumens. Bandwidth is 75MHz and the projector can support up to 1,280x1,024 signals. Sony also has a line of professional PVM-M video monitors with 600- and 800-line resolutions. It includes the PVW-series 20-inch 16:9 HDTV monitor and the 29-inch PGM-2001RU multimedia monitor. The latter comes wired for VGA displays, but an optional BKM-201SC plug-in scan converter increases the horizontal scan rate to 85kHz.

Check out the
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Meet The Digital Detectives

Video's First Serial Digital Analyzing System
That Captures Signals, Injects Test Errors
& Helps Bridge The Gap.



Whether you are testing SDI transport path, verifying digital video protocol or performing quality assurance checks on program material, Leader's new "Digital Detectives" are a dynamic solution for meeting SDI testing needs. Designed to operate in today's "transition" environment where analog and digital are present, these advanced design instruments provide superior flexibility and ease of use for quick, painless transition from analog to digital. Yes, each "Digital Detective" is a stand-alone product, but...the sum is greater than the parts!

For example, the LT 5910 SDI Analyzer delivers every capability for routing path and protocol analysis. What's more, it acts as a signal source to permit deliberate introduction of digital video errors into the data stream in order to test your system's ability to identify and deal with errors. Error capture and an extensive set of alarms facilitate

24 hour monitoring. Simultaneously, error capture permits detailed troubleshooting of intermittent faults.

Monitoring actual video signals is the job of the versatile LV 5100D. It has 2 serial and one analog (3-wire) inputs and works well in multi-format environments. Extensive cursors and data readouts facilitate quick, error-free analysis using familiar analog displays to ease the transition to digital. The LT 425D generates all the signals and test patterns needed to become a precise master source for digital component reference and signal testing. Multiple SDI and analog black outputs simplify use with multi-formats. Compression test patterns include provisions for future test needs, while the built-in AES/EBU (separate and embedded) satisfies audio test requirements.

For a close-up look at the "Digital Detectives," or for further details, call Leader's system integration specialists...

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Robotic Camera Systems & Virtual Sets



CANARE

Line of cables, connectors, patchbays and snake systems includes the DVJ-W (normal through) and DVJ-S (straight through) video jacks. These front-mounted (no more lost screws) jacks are designed for DC to 1.4GHz bandwidth usage. Ancillary patchbays and specially designed and terminated patch cables ensure the integrity of 1.4GHz data/video patching. A wide variety of cable colors are available to facilitate color-keyed cable organization.

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Cartoni

Fluid head tripods range from the Alfa I and II, designed for today's lightest ENG cameras, to the high-end C40s "Dutch Head." Cartoni fluid heads feature patented Cartoni fluid damping "Labyrinth Modules" to ensure precise, repeatable drag control settings. The Delta has LED position indicators to facilitate repeat setups and the new Gamma head, specifically designed for dockable ENG/EFP cameras

and 16mm film cameras, incorporates the same damping technology to provide infinitely adjustable tension setting for both pan and tilt.

Chapman/Leonard

Has a full line of camera cranes, dollies, remote arms, bases and pedestals that offer virtually everything conceivable in terms of studio and field camera mounts. The company's PeeWee dollies are the standard in affordable, transportable dollies, and the six-wheel steering crane trucks are a marvel of practical engineering. It's only natural that the Power Pod (load capacity of 80 pounds) and the Hot Head (max load of 176 pounds) camera remote systems are available to mount on the end of some of these exotic camera mounts.

Cinema Products

The company's line of Steadicam products is well-known. The ProVid 2 for nine- to 19-pound cameras is lighter, yet stronger, than its predecessors because of carbon fiber construction. New models feature modular components for easy field replacement and upgrade, as well as enhanced monitors. The top-of-the-line "EDTV" supports camera loads up to 45 pounds (prompter, etc.) and can be hard-wired via triax to a remote camera CCU. Like the Broadcast Steadicam (18 to 35 pounds capacity) the "EDTV" features "no tools" adjustment and balancing. The "SK" is the most compact steadycam and offers an affordable product for industrial/educational applications.



O'Connor Engineering

Fluid heads and tripods are precision engineered and manufactured from aircraft-grade components. An industry standard in the United States since the '50s, O'Connor products offer exceptional field reliability with good customer support. O'Connor offers improved calibration features, infinite drag settings, carbon fiber tripod elements, and in general, lightweight/high-strength aluminum and magnesium components. The new "Randall Handle" extension offers surprising advantages to the experienced cameraman. From the affordable model 515 to the sophisticated model 2527, O'Connor offers standard head/tripod/accessory packages, but the product line-up is such that virtually any combination of components can be ordered to create a unique camera support system for your application.

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Just Imagine.*

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Virtual Scenario allows cameras to pan, tilt, zoom, and focus with the virtual set always held in perfect perspective. It will not restrict you to

computer generated sets, scenes can come from any standard video source such as, still store, VT, live camera, disk recorder etc. Too good to be true? Call now for a demonstration tape and see for yourself.

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Product Directory

ParkerVision

The CameraManSTUDIO is a unique approach to one-man studio automation. Billed as a TV studio for less than \$100,000, the CameraMan STUDIO offers switcher effects like chroma-keying, transitions, keying on-air graphics and DVE. It also provides programmable robotic camera control (up to 64 cameras), as well as audio mixing. The CameraMan 3-CCD pan/tilt system is a modular camera unit that incorporates POWER HAD CCDs (380,000 elements, 750-line resolution) with 13x or 17x zoom, a serial-controlled pan/tilt head that can be mounted anywhere, and it can be fitted with a prompter that tracks with the talent.



Radamec Broadcast Systems

Virtual Scenario is composed of a 2RU CPU chassis unit, user workstation and a serial-controlled pan-and-tilt head equipped with high-resolution optical encoders. Developed in conjunction with the BBC, this product is a cost-effective virtual set solution. The workstation stores camera position and lens information, which it then incorporates via standard blue screen technology with a variety of background sources, including live video and CG environments. A new hardware defocusing product (D*Focus) allows variable focus (de-focus) of any virtual background, enhancing realism. Radamec's RP2 robotic pedestal, combined with the same 421 pan-and-tilt head used in VirtualScenario and the eight-channel ARC 2000 touch control panel are used in robotic TV installations all over the world.

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RT-SET

Has the Lorus and Otus turnkey 3-D virtual studio systems designed for use in live and taped broadcast and cable television, post-production, interactive programming and other content-intensive video productions.

Sachtler

Tripods include the DV-2 and DV-4. The DV-4 features a sliding balance plate and a higher load capacity (12 pounds). Both

are lightweight and bring Sachtler's leak-proof fluid head and the "touch-and-go" release system to DV shooters at a reasonable price. Also from Sachtler is a series of heads based on the evolution of its "Plus" technology, featuring more finely tuned drag-and-counter balance control. The new VIDEO 60 Plus uses a modular design that permits easy field conversion between various camera and dolly/crane fittings.

Telemetrics

Line includes the TM-9400, RS-232-controlled weatherproof robotic camera system and their newest pan-and-tilt head the PT-MP, which measures less than three inches at its base. To complement the PT-MP, Telemetrics has a compact color CCD camera, the CAM-SCL. The camera comes with a 12x zoom lens and features Y/C output. Intermediate size pan-and-tilt heads, a robotic pan-and-tilt trolley system and a host of joystick control panels are all part of the Telemetrics product line. Telemetrics' TM-CPS control panel software interfaces with all of Telemetric's other robotic/remote systems and offers productivity enhancements at every level. Telemetrics triax camera control system, the TM-9660, is an alternative to manufacturer's solutions for accessing component signal output from the multitude of Y, R-Y, B-Y cameras on the market.

Vinten

The AutoCam system was introduced 10 years ago to implement automatic camera control in a newsroom environment. Since that time, the system has shown utility in a variety of applications. The ACP-8000P touchscreen controller is a Pentium-based upgrade of Vinten's HCP-8000. The ACP controls pedestal movement, as well as pan and tilt, on Vinten's family of "Robo-Heads." Expanding this line of pan-and-tilt heads is the HS-2010R, designed for a camera/accessory load of up to 125 pounds and the HS-102P, which is designed for loads up to 35 pounds. The AutoCam system can control up to eight of the HS-102P units. For smaller systems, the AutoCam multicontroller provides "live" control for pan and tilt, zoom and focus for up to four cameras, as well as a store/recall mode with access to a 100-shot memory per camera. Augmenting Vinten's line of tripod camera support is the new Pro-Touch PRO 130 System. Designed for ENG crews on the move, the system components include the Vinten LF drag (fluid lubricated friction) head, lightweight aluminum vision tripod with spreaders and soft carrying case.

Format Conversion & Synchronization Equipment

AJA Video System

Features the D5E serial digital encoder, a low-cost 4:2:2 serial digital-to-analog NTSC or PAL conversion device with "better-than-expected" performance. It features three analog outputs, two of which are switchable to S-Video and a reclocked serial output. The D5E operates on 5VDC.

Avitel Electronic

Features the 3300-K series of modular video equipment with the DART frame management system, which allows control and remote status monitoring for all modules from a central location. Associated modules include a variety of analog and serial digital video distribution amplifiers, serializers and deserializers, A/D and D/A converters and serial digital frame synchronizers. Analog and digital modules may be mixed freely within a 3300-K series frame.

Beck Associates

Has two serial digital-to-analog composite video encoders designed for monitoring use. The SDV 4/4 is a serial digital monitoring distribution amplifier with four equalized and reclocked outputs designed for use in a Grass Valley Group 8900 frame. The SDA 4/1 is a self-contained, self-powered model with a single reclocked output. Both models have four analog outputs, equalize up to 300 meters of coaxial cable and have an on-board color bar generator.

Broadcast Video Systems

Has a Y/C-to-component transcoder. The model 738 is available in the 525/3.58MHz or 625/4.43MHz format and plugs into the same FR730 frame used by the companion 734 and 735 component transcoders. Up to three transcoder modules may be accommodated in a 1RU space.

Communication Specialties

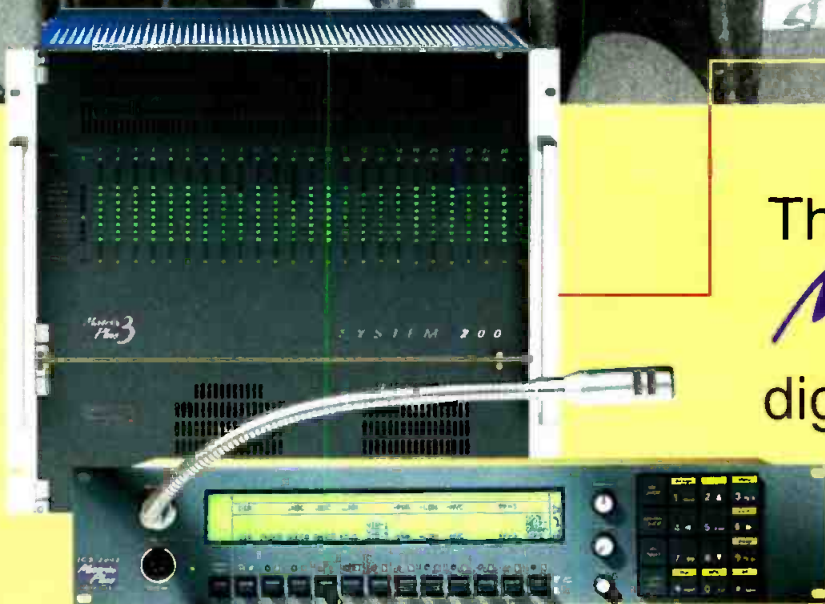
Has the ScanDo Ultra which combines advanced features and a compact profile with an affordable price. It can accept computer graphic input resolutions up to 1,600x1,280 pixels at horizontal scan rates from 24kHz to 90kHz, and will output either NTSC or PAL composite video, S-Video and analog component video (Betacam or MII). The ScanDo Ultra also features continuous 50% to 200% image sizing and a built-in test pattern generator,

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Product Directory

as well as an adjustable flicker filter and downconverted outputs for VGA, Macintosh and S-Video.



Digital Processing Systems

Has the DPS-465 serial digital synchronizer. Four different input and output formats are provided: serial component (D-1) digital, analog component video (Betacam or MII), S-Video and composite NTSC. The DPS-465 can act as a transcoder. The internal signal processing is 10-bit CCIR-601 serial digital and a built-in TBC circuit allows heterodyne input signals from camcorders to be integrated into a broadcast environment.

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Digital Transport Systems

Offers hardware and software solutions for real time MPEG-2 and DVB test and measurement. A line of PCI-compatible transport stream generators complements the existing family of transport stream analyzers and EISA-bus based TSGs for sending or receiving pre-generated data, such as MPEG-2 transport streams across DVB ASI high-speed asynchronous serial, DVB LVDS or RS-422 8-bit parallel connection.

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Feral Industries

LD-2000 line doubler features digital processing with motion detection, three-field processing for motion video sequences, with temporal and vertical filtering and a freeze function. The LD-2000 can accept input in composite, Y/C, analog component and VGA formats and outputs LVDS video at a resolution of 852x480 pixels. System setup is accomplished through the use of an on-screen menu.

Folsom Research

9700XL scan converter accepts high-resolution RGB computer video at horizontal scan rates up to 100kHz and converts it to broadcast-quality NTSC or PAL, in composite, analog component, S-Video or, op-

tionally, serial digital component formats. The 9700XL also supports 31.5kHz RGB output. It has full front-panel control, a versatile zoom function, gen-lock and adjustable horizontal, vertical and flicker-reduction filters for the highest possible video quality.

Heuris

Is distributing the MPEG PowerMUX multiple channel live video multiplexing unit for use with ATM networks. With the PowerMUX, broadcasting and post-production facilities can be wired for ATM transmission within and between facilities instead of traditional analog transmission, allowing data to be manipulated quickly, easily and inexpensively in digital formats.

Hotronic

AR71-PAL is a full-bandwidth TBC/frame synchronizer designed for a PAL composite video environment. It features composite input and output, 4:2:2 eight-bit processing and a TBC function. The AR71-PAL is designed to be a TBC card for a PC-compatible computer, but an optional rack-mount chassis allows stand-alone operation.



Leitch

Has an MPEG-2 compression system. The compressor is a single-board module that fits into a 3RU DigiBus frame. It supports the 4:2:2P@ML and uses the latest IBM MPEG chip set with bit rates from 2Mb/s to 40Mb/s. It also supports a variety of GOP structures and provides audio and data timing and multiplexing functions. The accessory noise-reduction module and the companion decompressor module are also single-board DigiBus plug-ins. All compression and noise-reduction parameters are controlled from the standard Leitch DigiBus control panel.

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LNR

Offers a digital video exciter that combines a DiviCom MPEG-2/DVB-compli-

ant encoder with a specially designed, frequency-synthesized RF exciter section for C-, Ku-, Ka- or L-band in SCPC or MCPC configurations, all in a 2RU package. The MPEG-2 encoder section operates at data rates from 1.5Mb/s to 15Mb/s and supports digital and analog inputs for video and dual-channel audio. This low-cost, high-quality exciter series is ideal for flyaway or mobile digital SNG systems and distance learning applications.

Macrovision

Has the Minicrypt VES-TM hand-held scrambling system. This compact codec effectively encrypts and decrypts a video and audio signal for transmission via satellite or microwave. Two external hexadecimal switches set a unique security code, in addition to a customer-specific code, that adds an additional level of security. The lightweight unit operates on 7VDC to 30VDC and can encrypt either NTSC or PAL.



Miranda Technologies

Offers the VIVO digital video gateway that provides a 4:2:2 serial digital input and output for the Silicon Graphics O2 workstation. The VIVO also provides GPI input and output and is powered by the O2 workstation. This compact unit plugs into the workstation's digital video port connector and works in 525- and 625-line formats.

Circle (129) on Free Info Card

Prime Image

Has Pick-2, a modular mainframe product, designed to house any two of a wide selection of TBCs, standards converters, frame synchronizers, audio delays or logo inserters. All of these building blocks can be controlled from the front panel of the Pick-2 frame or through an optional remote control. Also from Prime Image is the Twister, designed to transmit high-quality stereo audio and video signals through a simple twisted pair of wires, up to 5,000 feet in length.

RGB/Videolink

1700-D1 scan converter accepts input vid-

one-inch pipe

Itelco's equipment meets all safety requirements as specified by the relevant international organizations: IEC, EC



1997 Itelco Corporate Security Office - Concept: Stefano Morelli, Copy: Raffi Unger



3 - 60 kW Solid State Liquid Cooled TV Transmitting Systems

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Time also changes everything, so we've



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given the Origin platform more scalability and flexibility than any dedicated box. Store months of on-line video, fast-network to any local desktop, run world-class applications, support standard automation systems and StudioCentral™ asset management environment. Want advanced graphics? Origin will let you add it. That's power and flexibility.

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SiliconGraphics
Computer Systems

Product Directory

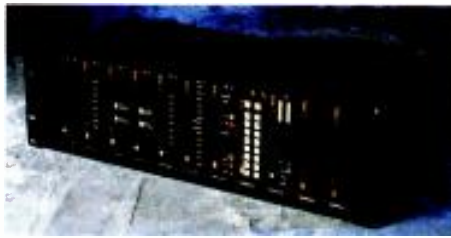
eo from desktop or workstation computers at resolutions up to 1,600x1,280 pixels and converts it to NTSC or PAL composite video, S-Video, component analog video (Betacam or MII), as well as CCIR-601 component serial digital video. A powerful zoom function allows continuous pan and zoom effects smooth enough for on-air use. The 1700-D1 also features RS-232 serial control, as well as a full-function front panel and the ability to overlay computer-generated graphics on video using either a built-in linear keyer or chroma-keyer on composite or S-Video backgrounds.

Sigma Electronics

Has three transcoders and one decoder for analog video, as well as a serial digital product for PAL applications; all of which can mount in the series 2100 modular mounting frame. The TPS-2112 transcodes a PAL Y/C signal to PAL component analog video; the TXP-2113 transcodes PAL composite video to PAL component analog video; and the TXC-2114 transcodes a Y, R-Y, B-Y component analog signal to NTSC composite video or Y/C. The Sigma DEC-2192 decoder converts a PAL composite analog or a PAL Y/C signal and divides it into RGBS, while the DPC-2171 converter takes a 4:2:2 component serial digital and converts it to PAL component analog video.

Snell & Wilcox

Transphix applies high-resolution 3-D filtering technology to convert all popular non-interlaced computer video formats to NTSC or PAL output for recording or broadcast. It automatically senses the input format, up to 1,600x1,280 pixels, and produces output in PAL, NTSC, PAL-M, PAL-N and an S-Video (Y/C) output. Optionally, the Transphix can output analog component or digital component signals. Other features include a 4x zoom with pan and tilt and a freeze function. Also from S&W is the Interpolator, a unique display processor that can integrate a PC environment into a 1,280x1,024 pixel combined visual display. Interlaced TV video can be mixed with progressive scan computer graphics on the same screen. Video inputs can be composite, analog component, S-Video, IEEE 1394 FireWire and 4:2:2 serial digital. Multiple computer resolutions are also supported.



Telect

VersaFrame 2000 is billed as the "All-In-One Modular Pro A/V System." This flexible, modular system includes plug-ins for distribution and routing of analog and serial digital video, serializers and deserializers. All modules can be mixed within a frame and can be "hot-swapped" in the event of failure.

Circle (130) on Free Info Card

Tiernan Communications

Features a broad line of MPEG-2 encoders for digital satellite newsgathering (DSNG), program distribution and backhaul applications. The versatile TE4 encoder supports the 4:2:2P@ML or the MP@ML MPEG-2 standards for high-end professional broadcast applications. Input video can be analog composite or serial digital and either four monaural audio channels or two stereo pairs can be compressed following the MPEG-2 audio layer I and II standard. Output data rates are programmable up to 70Mb/s and the output transport stream can be output to either of two output option modules, which can support interfaces for SCPC or MCPC applications.

Video International

DTC 4600MV universal motion vector standards converter inputs and outputs virtually any video format and features smooth, judder-free conversion of moving images, including captions and sports. It also features a two-channel audio delay circuit to prevent lip sync problems.



Alamar USA

Has released version 4.2.3 of its station automation software, which allows remote, multichannel disk caching — four independent channels off each Alamar computer — over a WAN. The software is capable of multicasting up to 200 channels.

Associated Press

NewsCenter is touted as the newsroom

system you'll never outgrow. It equips any TV newsroom with key functions, such as scripting, closed captioning, assignments and more, through software that runs on personal computers linked via a local area network. AP also offers ENPS, a revolutionary new TV production system; APTV, a global video service that unilaterally gathers its own material; SNTV, a unique sports video service; and The WIRE, a 24-hour multimedia service for the Internet.

Florical Systems

Offers the CachePlayer, a low-cost automation solution designed to reduce robot, VTR and tape usage by as much as 90%. CachePlayer is a Pentium-based PC/software package that automatically caches spots from a cart machine to a third-party server/cache. It then manages the air playback of those spots based on the traffic schedule. The interface gives much of the editing functionality and database features popularized by Florical's AirBoss and SpotCacher systems. CachePlayer hopes to fill a niche by extending the life of existing Betacart systems, while newer technologies mature.

Leightronix

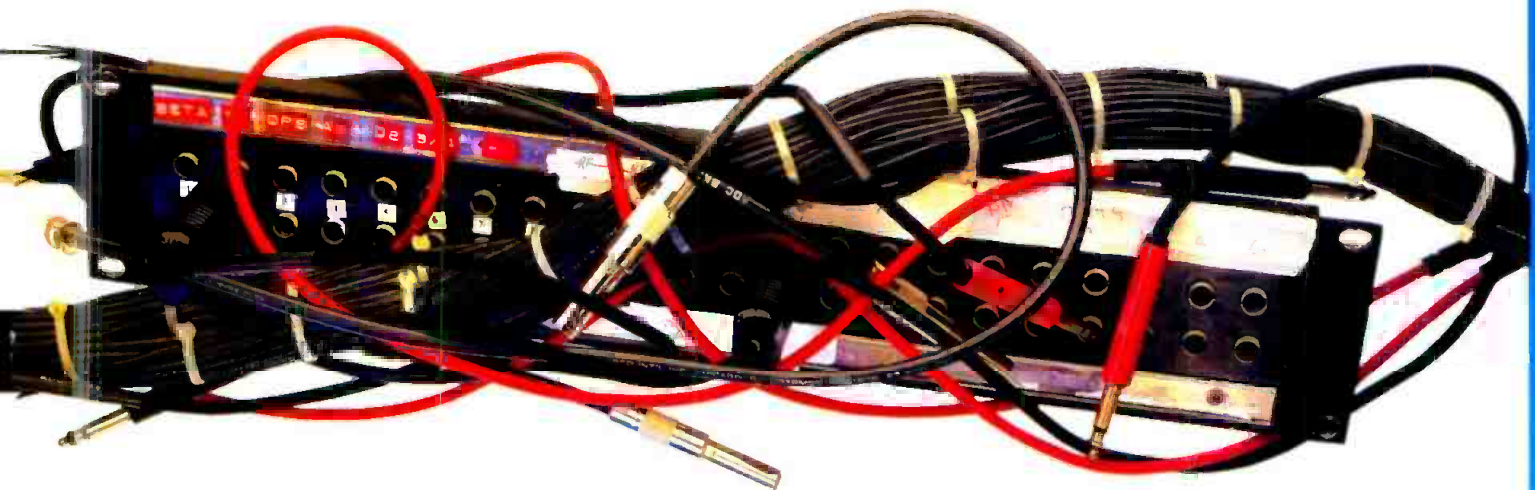
Has a low-priced event controller and digital video player ideal for automating closed-circuit systems, access channels or similar applications with limited demands. The MVP-2000 features a built-in 4x3 router with stereo audio, 2GB storage of MPEG playback, control of 16 tape decks and network control by LAN or WAN.

Louth Automation

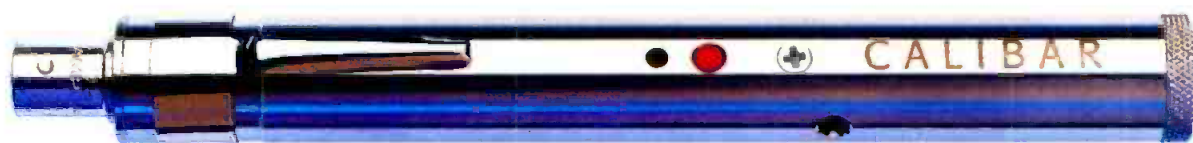
Has the ADC-50, with same features and functionality as its ADC-100 broadcast automation system, but with one functional limitation: no serial control of master control switchers or related secondary events. Equipped with a 4RU 12-slot PC Pentium device server, the basic system includes one ADC-50 play list and device interfaces for two VTRs, two video file server A/V streams and a 10x1 switcher (optional drivers for other peripherals are available). Also included are four-port serial cards and a Windows client workstation.

MATCO

Builds the MA-400 video server, a turnkey, Motion-JPEG-based system designed for the efficient insertion of commercials and promotional materials. The MA-400 comes complete with 9GB of fixed disk storage; definable compression rates; inventory management and scheduling software; assignable GPI trigger, tally closure or other automation control; and integrated control of an RS-422 VCR or VTR for use as a source



We've pulled the plug on the patch bay.



Calibar. The pocket-sized NTSC test signal generator.

Until now, you had two choices when it came to video calibration equipment—the rack-mounted system or desktop-sized system. Serviceable, sure... but hardly convenient. Because while it sits in the patch bay, you run around plugging umpteen cables in and out to get the readings you need. And on location? Forget it.

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It's the fastest, easiest, most portable way to calibrate video equipment. No patch bay racks or bulky, oversized test equipment. And no limits to where you can use it. So, besides giving you fast accurate readings in the studio, it's perfect for off-site events and trouble-shooting in the field.

Just tuck the pen-sized Calibar in your pocket and you're ready to go. Touch the button to generate SMPTE color bars. Touch it again to calibrate

convergence, do a line sweep, read color fields and so on. With its 10 bit digital architecture and precision output, Calibar accurately performs 24 test pattern functions...that's as many as most rack systems.

It's fast, easy, and, at *under three ounces*, extremely portable. Just try taking your rack-mounted system along.

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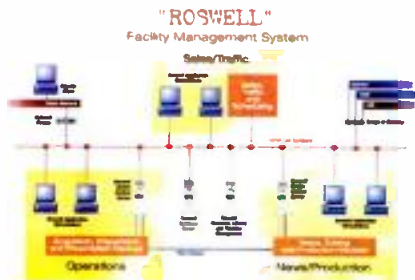
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NewTek

Product Directory

deck in capture. With up to 75 minutes of Beta SP-quality video and CD-quality audio, the low-priced MA-400 is well-suited to the needs and capital resources of many smaller broadcast stations.



Odetics Broadcast

Has Roswell, the "first broadcast management system designed from the ground up since the advent of digital disk storage." Using de facto industry standards, such as Windows NT 4.0 and the SQL-compliant Oracle database management system, Roswell delivers an open system interface to traffic and accounting; sup-

ports standard networking connectivity via an Ethernet LAN; features a familiar Microsoft GUI; supports object-oriented programming; and is completed by at least one device control server (DCS) capable of controlling up to 16 peripheral devices. Odetics also features the Data Library Manager. Developed for SpotBank systems, it provides an integrated solution for archive, backup and restoration of video server contents using compressed video based on the DLT tape technology.

Circle (131) on Free Info Card

Panasonic Broadcast and Television

Has the Smart Cart automated record/playback system. An expanded system robotically links up to three Smart Carts, yielding the same tape storage capacity (an average of 450 cassettes) as larger library systems in only half the space. Each discrete Smart Cart is a true multichannel system that can provide a completely different set of commercials and programs to two separate stations.



Philips Broadcast Television Systems

Has the XL series of Media Pool models. The two-channel XL-2100, the 3-channel XL-3100 and the 4-channel XL-4100 (all currently available) support Media Pool's expandable architecture, integrated applications and industry-standard protocols. The base XL series system includes Splash administrative software, Pool Net Native System Protocol, Beta CP Serial Control Protocol and Stream VTR emulation software. Other applications can be added for cart emulation, caching or editing.

Circle (132) on Free Info Card

Tektronix

Offers the Grass Valley M-2100 digital master control system. It provides multichannel operation from a single control panel, the M-2100 has some unique features — integrated SqueezeBack and Profile Professional Disk Recorder (PDR) clip stacking. SqueezeBack eliminates the need for an external DVE by incorporating digital 2-D picture manipulation in the video processing path. Integrated Profile PDR clip stacking offers single-point control for viewing/stacking of clips stored on a Profile disk recorder and for their replay to air. The event stacker provides almost instant access to a large variety of filler or promo material. Integrated audio/video and control processing frame and hot-pluggable modules are more of the unique features offered by this scalable switcher.

VidCAD Documentation Programs (VDP)

Helps make your job easier with VidCAD SPECS. With SPECS, you can quickly locate specification information on thousands of products from hundreds of manufacturers on CD-ROM. The comprehensive catalog contains technical product descriptions and options lists that are updated quarterly, with weekly updates on the Web. In addition, VidCAD Diagram Tools, a computed-aided documentation program, is available in Level 2, featuring more than 12,000 equipment models, custom drawing styles, cable number labels and a run-time version of AutoCAD R13 for 2-D or 3-D drawings. Level 2 also allows you to diagram sketches without linking to cable or equipment databases.



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Product Directory

RF Equipment

Advanced Broadcast Systems

Offers the CST-II transmitters. These computer-supervised UHF units are available with IOT, MSDC and klystron tubes in power levels ranging from 20kW to 240kW.



Antenna Concepts

Makes a line of antennas for FM, ITFS, PCS, UHF and VHF service. Of greatest interest in the area of HDTV is its low-power TV antennas. The series has names like Champion, E-Slot, LP line and the Blaster. The products are available as directional or omni, circularly polarized and represent a method of putting a network pass-through UHF HD station on the air. The Spanner line handles power from 5kW to 150kW in the UHF band. Antenna Concepts offers a line of high-power omnidirectional batwing antennas for the VHF band with power levels up to 20kW. While the batwing is a time-tested design, it still represents a less-expensive method of getting a VHF signal on the air.

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Belar

TVM-230 BTSC TV stereo monitor/analyzer operates in conjunction with its TVM-100 or 101 or other wideband aural demodulators. The TVM230 digitizes the complete demodulated aural signal and decodes the stereo multiplex using digital

signal-processing techniques. Also from Belar is the TVM-250 SAP/PRO monitor, a dual modulation monitor system for stations broadcasting the MTS SAP or PRO channels.



Best Power

Patriot Pro uninterruptible power systems (UPS, 400VA-1,000VA) provide Internet/Intranet-ready advanced power protection for PCs, workstations and small servers. Telephone/10Base-T surge suppression protects computers connected to the Internet via a modem and safeguards networks from dangerous lightning and "backdoor" surges via ethernet 10Base-T.

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Broadcast Microwave Services

Has a new STL/TSL ICR modular system package that provides high quality at low cost and is ready to handle signals worldwide. In addition, the company has 7GHz and 13GHz low-cost compact transmitters for simple STL applications.

Circle (135) on Free Info Card

Cablewave

Has an NTSC/DTV single antenna solution — a wideband UHF antenna available in side-mount or top-mount configurations with power-handling capabilities of up to 60kW. It also has the Flexwell series of cables and connectors.

Coaxial Dynamics

Has a line of dummy loads, including air-cooled dummy loads up to 12.5kW, which

are rated at up to 1,000MHz.

Comark Communications

Products include three different models of transmitters and Comark Digital Services (CDS). The purpose of CDS is to provide turnkey solutions to the broadcasting industry's transition of DTV. Comark's Optimum series of solid-state UHF and VHF digital (and analog) TV transmitters offers power levels from 500W to 60kW. An interesting feature of this transmitter is that when used as an analog transmitter, it can be configured either as a common (visual and aural) amplification system or the more traditional separate amplifiers for picture and sound. Both configurations use combiners to allow additional power cabinets to be added until the desired output level is reached. Comark's Advantage family of transmitters feature air- and water-cooling at various power levels from 5kW up to 200kW in the UHF channels. The Advantage is an IOT system transmitter, and you can choose your favorite tube manufacturer to supply the IOT. The IOX transmitter line has a smaller footprint package and features microprocessor control, common or separate amplification at NTSC power levels from 15kW to 28kW.

Dielectric

Products handle any power level legal for NTSC or DTV. The company also has the facilities to design and construct any filters required for combining multiple carriers into one transmission line and antenna.

EEV

Has the IOTD2100, a water-cooled device that delivers 110kW of peak power. Also offered are smaller water-cooled units, the IOTD270 (70kW) and the IOTD150W (50kW), along with the IOTD150R (50kW), an air-cooled design.

Eimac

IOT line now includes three new dual-mode (analog or digital) models with power levels from 22kW to 55kW as well as four IOTs optimized for HDTV. These tubes offer power levels from 44kW to 110kW (peak).

Electronics Research, Inc. (ERI)

Has gone into the lightning protection and grounding system business and is producing cathodic ground rods and high-tech spur-type lightning rods. Together, these units can greatly reduce the amount of damage that a station experiences from lightning.

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POWER

Product Directory

Electronica Industriale

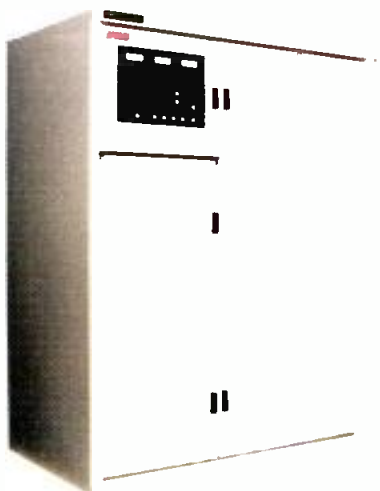
Offers the Linea Stone, a 5kW solid-state UHF transmitter. Linea Stone includes considerable redundancy, complies with NTSC standards and is compatible with DVB and 8VSB standards.

EMCEE

Latest offering is the TTU2500HD Transition transmitter (2.5kW average power). Its broadband solid-state driver features easy operation and low maintenance. A frequency-agile synthesizer permits channel changes in the field. The unit employs an 8VSB modulator and a tetrode power amplifier. Also from EMCEE are low-power transmitters for MMDS applications. The DigaCom series of transmitters are designed to operate from 2.5GHz to 2.7GHz frequencies. The UHF transmitter line now include the F series, which is a 1kW solid-state unit.

Equi=Tech

Specializes in balanced power systems, and has introduced a range of downsized systems ideal for remote facilities or small studio/automated operations.



Harris Corporation

Sigma CD transmitter is designed to be an ATV transmitter. The key component within the Sigma is the CD-1 exciter. The CD-1 uses digital modulation techniques to provide proper filtering and linearity correction for the 8-VSB signal, while protecting the above and below adjacent channels. This exciter has a 32dB signal-to-noise ratio.

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Hirose Electric Inc.

Has a wide variety of medium-sized, weather-resistant, contact-impedance N-series coaxial connectors. These 50Ω impedance screw-coupling connectors can be used at frequencies up to 10GHz. At low frequencies, they can be used with 75Ω cables.

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Iteco

Has 3-60kW liquid-cooled UHF and VHF transmitters, as well as digital exciters.



Jampro Antennas

Source of DTV antennas and broadcast RF systems. Among their products is a broadband UHF panel antenna that will side-mount or top-mount and is modular in design. The panels can be configured to provide various patterns, gain and power levels. The JTW series of slotted antennas will also top- or side-mount and are available up to power levels of 160kW and on all UHF channels. Jampro also offers its

“dual” antennas, which are designed to provide NTSC and DTV service from the same aperture. This is a combination of the JTW traveling wave antenna and the JAT batwing VHF antenna. Jampro also offers the dual-mode combiners to allow different UHF channels to use one common transmission line and antenna up to power levels of 120kW.

Circle (138) on Free Info Card

Key Industries

Has 3-phase rotary converters. These units are designed to sit quietly and pump out 3-phase power for years on end.

Litton Electron Devices

Has a complete line of TWTs for C- and Ku-band uplinks. They also rebuild and repair UHF-TV klystrons.

MGE UPS Systems

Pulsar ES 2/4/7/10 offers inexpensive, quality battery backup and surge protection for desktop PCs, monitors, UNIX, CAD workstations and entry-level servers. Smart battery management features include: longer battery backup, fast battery recharge, increased battery life, automatic battery testing and deep discharge protection.

Myat

Offers power combiners that will accept multiple inputs and combine them into one common feed line. These are available in 3- to 8-way combiners for VHF and UHF frequencies.



Nucomm

Has digital-ready microwave systems that are designed to meet the bandwidth needs of digital TV systems. Units can handle 2GHz and above, for both ENG and STL applications.

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The 83-page Tower Parts and Accessories Guide catalog details PiRod's complete line of tower parts and accessories and features the latest in anticlimb devices, universal side arm mounts, nonpenetrating roof mounts, cellular/PCS sector

mounts and other cost-effective solutions for your tower needs.

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Radio Frequency Systems (RFS)

Has waveguide directional combiners as well as panel arrays. The panels are designed for the UHF band to 2kW per panel. The waveguide combiner modules are designed for transmitter powers up to 60kW.

Shively Labs

Offers the series 2000 UHF antenna line. The 2000 features power levels from 1kW to 150kW, horizontal or elliptical polarization. It is DC grounded for lightning protection and is available with radomes for weather protection. Shively also manufactures a line of FM and MMDS antennas.



Thomson Tubes Electronics

Line of tubes includes IOTs, tetrodes and Diacrodes. Among them are the TH 680, a water-cooled 60kW version, and the TH 610, a 10kW air-cooled Diacrode.

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Stainless Inc.

Provides fabrication and erection of structures up to 2,000 feet in height. The company also provides structural analysis and modifications for existing tower owners who are considering ATV installations.

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able for your web site and ready-for-air via satellite. The FirstWarn system is EAS-compatible and automatically generates crawls, map icons and radar to notify viewers of severe weather.

Allen Osborne Associates

Offers a line of Hilomast telescopic pneumatic masts. The masts can be used for remote ENG, communications, field-strength measurements, pop-up jamming, remote surveillance and noise level measurements.

Anton/Bauer

Hytron system uses high-performance

metal hydride cells equipped with onboard "fuel computers" that monitor charging and usage to optimize battery performance. A newly patented interface from the digital battery provides instant remaining capacity information to an LCD display on the cell and in the viewfinder of most popular camcorders. Hytron batteries are compatible with existing Anton/Bauer chargers, as well as newer Logic Series and InterActive 2000 models.

BAF Communications Corporation

Offers a range of satellite news vehicles. The Navigator 'flyaway' satellite uplink portable, pack it up system is the latest offering. The fold-up antenna is the Cen-

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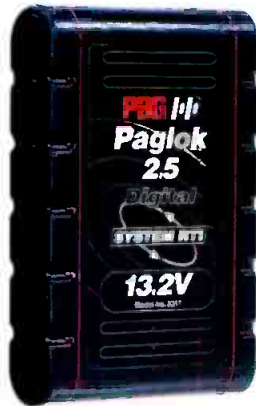
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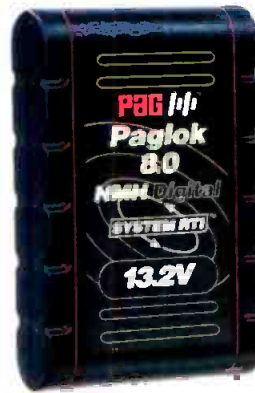
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Product Directory

tion 1.5m offset fed diamond-shaped parabola with Intelsat and Eutelsat approval and complies with CCIR-280. Transmit gain is 45.5dBi at 14.25GHz and receive gain is 47dBi at 11.95GHz. The unit can withstand inclement weather and winds and will withstand thousands of repeated assembly and disassembly while maintaining the integrity of the positioner geometry.

Broadcast Microwave

Has new ENG vehicle packages for single- or dual-band transmitter operation. These packages include offset feed antennas and control panels with built-in test generators. Products also include helicopter systems with omnidirectional antennas and GPS-steerable antenna pods.



Broadcast Software Solutions

WinMasterCG version 4.01 drives the Chyron Codi CG and has all the functionality of the DOS MasterCG, but with many more features and an easy icon-driven Win95 interface. It has all the new variations of the TV Ratings Icons and includes CC and EI symbols.

Circle (142) on Free Info Card

Christie Electric

Product line includes the CASP/1500 and 1100 charger/analyzers. The former is a 6-output user-programmable system, while the latter is a more economical 4-output, preprogrammed system. Both models join the other members of the CASP family, and support all types of professional video system batteries.

Columbia Communications Corporation

Uses a creative approach that uses the C-band capacity onboard NASA's Tracking and Data Relay Satellite System (TDRSS) to provide cost-effective video transmission across the Atlantic.

Communications & Power Industries (CPI)

Stacom Division's latest offering is the

CMPA (Compact Medium Power Amplifier). This 5.25-inch unit features micro-processor control and can be used in SNG, flyaway and small earth terminal applications. Built-in fault diagnostics and modular construction make the unit easy to maintain.

EEV

Has the Stellar range of high-power amplifiers (HPAs). Stellar HPAs offer up to 500W outputs from units that weigh only 55 pounds and are only 3RU tall. They can operate on voltages from 99V to 264V without adjustment and can be used for analog and digital uplinks. Comprehensive remote control is provided through an RS-422/485 port.

ESE

Offers 5- and 16-inch clocks. The LX-5105 and LX-5116 are auto setting to time-code inputs or low-voltage impulse signals and offer sweep or step modes with optional lighted dials.

Frezzi Energy Systems

M2100 is designed to discharge, charge and maintain most video and lighting batteries, the M2100 is built from aircraft aluminum for light weight and durability. A RISC processor powers the operating system, which offers simple, user-friendly operation and displays.

Horita

Has among its many products, the PR-232. It operates in conjunction with a DOS TSR program, and automatically keeps your computer's clock updated to time code or GPS time input through an RS-232 input. The MTG-TIME program that accompanies the PR-232 not only updates your computer's time to prevent drift from unreliable PC clocks, but it provides easy offset to differing time zones or UTC time.

Hughes Communications

Offers a range of commercial satellite communications services. Its Galaxy Satellite Services (GSS) unit offers satellite services in cable video, broadcast video, video timeshare, VSAT data, voice and video, international television, satellite newsgathering and SCPC audio and data.

IBM

Is offering its Video Services business. This service uses local loops into ATM nodes in IBM's global network and offers a broad spectrum of broadcast-quality MPEG-2 video for backhaul usage. One of the most interesting parts of this service is the self

scheduler available on the Internet. Simply log on and get full booking, pricing and status reports. This is intended to be a global service by the end of 1998. IBM has an arrangement with Keystone for satellite services, that may be needed in conjunction with the service.

IDX Technology

Has NP batteries that use lithium ion technology in addition to a companion charger that will simultaneously charge four of the new batteries.

LandSea Systems

MillenniumM-phone (Mini-M) can be used for global voice, fax and data communications. The terminals use the latest IN-MARSAT 3 satellites via Spot Beam. The phone is the size of a PC notebook and weighs less than five pounds including antenna and battery.

Maxell

Is meeting the digital world head-on with a new, advanced 1-inch cassette designed for HDTV machines. A high-performance hinder system and ceramic armor metal particle coating keep the tape from flaking under the high stress of fast shuttle modes and slow motion. Maxell also has a D-5 cassette product specially designed to maximize D-5 performance when the format is used with Panasonic's adapters that allow the recording of HDTV signals.

Nera Communications

In Norway has its "SuperViSat" on-demand video backhaul system. Built into a VW van, this unit has a 1.2m dish mounted on the roof and is designed for full operation by one non-technical person. All transponder assignments, tuning, steering, cross-pol and other checks are fully automatic. Even remote-control cameras can be used with the system.



PAG Ltd.

The revolutionary Paglight is compact and cool running and has been designed for all ENG/EFP situations, answering the many requests for an all-embracing, single-operator camera light. To convert from halo-

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Product Directory

gen to arc, simply unplug the lamp unit from the rear of the Paglight and plug in the Power Arc option. Power Arc consumes 24W with an output equivalent to 75W at daylight color temperature.

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PAG Ltd.

System RTI provides viewfinder readout of battery power remaining in hours, minutes and seconds. The MC124 is a four-channel charger for NiCads in the 4.8V to 14.4V range. It measures battery performance and restores lost storage capacity to tired cells. The PP240 battery features true series configuration of 10 5/4 sub-C cells and operates stand-alone or PC-controlled.

Circle (144) on Free Info Card

RE America

Has a new product using DS3 lines that allow the producer or special effects people to have control of a tape machine located on the set to view and edit the day's material. An editor or producer located anywhere with DS-3 capacity can review material and compose edit lists from the comfort of the home facility.

Research Technology International (RTI)

Model 5300 Pulsar series conveyor degaussers use a new pulse discharge technology and a pivoting erasure coil to provide fast, full erasure of all tapes up to 1,650Oe, with reduced energy consumption. An optional automatic feed hopper accepts multiple cassette sizes and types for unattended operation.

Skotel

Has added software updates to its popular Little Red time-code reader that permit computer-based logging with correct time code fed to the PC clock. Version 2.0 of the LR-Clipboard program even detects which software applications are installed and inserts a "time" icon on the application's clipboard. When combined with the Little Red's own feature set, the result is a pow-

erful combination.

Sprint

Offers its Drums service for faster special effects work by being linked to the site of the shoot. Drums is available via ISDN or T-1 lines.

Standard Communications

Manufactures video rebroadcast-quality satellite TV receivers and broadband RF products. The Global VU model CAM830 control access monitor used in conjunction with the Agile Omini receiver gives you access to all satellite formats from front-panel controls or from a PC. The monitor lets you add or modify formats, then scan them by RF frequency and or audio subcarrier and gives you control over all three audio subcarrier demodulators, as well as international video features.

Thomson Broadcast

Offers the DSG 2500 system, which uses MPEG-2 MP@ML compression. The DSG 2500 complements Thomson Broadcast's current range of DSN products. Also new from Thomson is the 8522 encoder/8523 decoder. Designed for satellite news links, these 4RU units provide selectable video and audio interfaces, as well as compression ratios.

Vyvx

Has a Pac Bell connection for its First Video Affiliates system. This service offers everything from full 270Mb/s uncompressed video transport to and from post houses, to compressed video transport of "dailies" from the shooting location. Using MPEG-2 compression, Vyvx is offering transport that may not have been available before because of excessive cost or lack of capacity. The standard bit rate for this service is 6.312Mb/s. With high-quality codecs, this should prove adequate for most applications. Vyvx will offer the service initially in most of the highest-demand market cities.

Video Compression Encoders & Decoders

ADC Telecommunications

Latest product offerings include the new SAS system, which stands for "Synchronizer and Switch." The SAS is built for the company's popular DV 6000 fiber-optic video line. It consists of a 128x128 digital switch and a GPS-based clocking reference system to lock the digital clocks of all

the systems together. Using SAS, signals can be routed from one DV 6000 ring to another. ADC also has a new MPEG-2 (ML@MP) compression unit and interface for sending multiple MPEG-2 signals over the DV 6000 system.



Fiber Options

Products include the 1250B fiber-optic transmission system. Features include digital processing, 12-bit video and 20-bit audio ensure transparent transmission of composite video and up to eight channels of audio. The system is designed for use within broadcast facilities, as well as remote field production.

Circle (145) on Free Info Card

Fico, Inc.

Has quick-splice kit for hybrid fiber-optic/copper cables (fiber for the video and copper for the power) used for many cameras. The kit consists of a box with a watertight entry way for the cable, gel-filled quick splices for the fibers, crimp splices for the copper and all the required tools for two technicians.

General Instruments

Has its Magnitude line of DVB compression equipment, a result of GI's acquisition of Compression Labs' broadcast products division last year.

Integrated Photonic Technology (Iptek)

Has the IMTRAN DS-3 interface, a data communications module for the IMTRAN digital fiber-optic transmission systems. When used with the IMTRAN-CQ series, the new plug-in module set provides fiber-optic transmission of two 45Mb/s, DS-3 channels. Iptek also has the Dense WDM Transmission System, an optically multiplexed fiber-optic transmission for 80 uncompressed video channels on one fiber.

Ortel Corporation

Offers fiber-optic interfacility links for satellite earth stations. The company manufactures RF and microwave fiber-optic interfacility links for small and large satellite earth terminals, PCS and cellular systems and cable TV distribution. The satellite links meet Intelsat and broadcast requirements and are available for covering bands from 10MHz to 14.5GHz.

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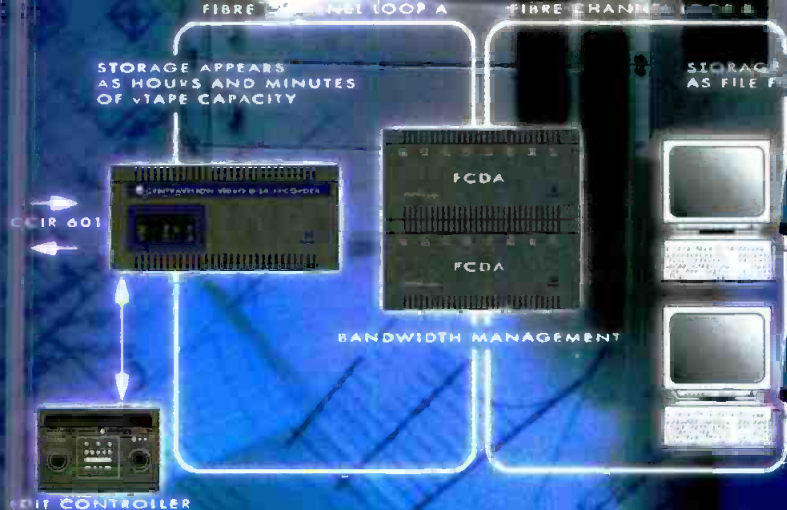
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Product Directory

Osicom Technologies

Offers the VGL-312L, high-resolution monochrome video graphics link that provides cost-effective performance and solves the distance limitations of coaxial cable between workstations and remote graphics terminals. Osicom's AL3300 satellite TVRO L-Band fiber-optic link provides a cost-effective solution for transmission of L-band signals from remote antenna sites to satellite receivers and headends.

Telcast

"Viper" camera interface is designed to replace triax cables on long cable runs. It provides full-camera functionality, including return monitoring, intercoms and remote CCU control over a pair of fiber-optic cables.

Wegener Communications

Offers the multiple-channel-per-carrier DVE-2000 MPEG-2 encoder and DVM-2000 multiplexer. This is an addition to its existing line of single-channel-per-carrier equipment.

Video Editing Systems

Accom

Axial 3000 is described as an "un-linear" editor. Designed as a true hybrid editor, the system supports linear, non-linear or a combination of both types of operation.

Avid

With its broad line of non-linear editing products is working with Pluto Technologies on a DV-native editing and playback system for broadcast news.

Discreet Logic

Is offering faster versions of Fire and a new product, Smoke, that runs on the SGI Octane.

ETC

"Multilinear" Ensemble Gold is one of several ETC products that include the Ensemble Pro-H series of hybrid editing systems.

FAST Electronics

blue is an all-format digital editing system. As well as supporting MPEG-2, the system allows any digital or analog video format to be used on the same platform at the

same time, while keeping the signal in its native format. Data can then be transferred via SDI, FireWire or QSDI.

JVC

Digital-S family includes editing recorder and feeder/players, a dockable field recorder and the MSW-S1000 non-linear editing system. Designed to be used with Digital-S VTRs, as well as all serial digital connections, the system features 4:2:2 sampling, real-time 2-D and 3-D effects, graphics and chroma-key. JVC has also announced a Digital-S recorder that supports two times faster than real-time compressed serial data output via standard SDI.

Media 100

Offers the HDRfx 4:2:2 digital component effects processing engine, which, when used in conjunction with the Vincent 601 card, provides 21 real-time transition effects at 2:1 compression, with two streams of video and an alpha key channel.

Panasonic Broadcast and Television

DVCPRO50, which expands the DVCPRO format to 4:2:2 processing. New products include a studio editing VTR, a camcorder, the AJ-LT75 laptop editor and the AJ-D780 4X recorder/player supporting transfer at 4X play speed via CSDI to editing systems, such as Panasonic's new Windows NT-based NewsBYTE. Panasonic also has DVedit, a multimedia kit for NT platforms that uses a DVCPRO version of the Truevision Targa 2000 RTX board.



Philips Broadcast Television Systems

Handles several DVCPRO units including the DCR 75 digital laptop editor. Designed as a lightweight portable for on-site field editing, the unit uses the DVCPRO large cassette, includes two digital VTRs and an editing controller with two color LCD monitors and is powered by a 12VDC

supply or optional AC adapter.

Circle (146) on Free Info Card

Quantel

Now supports third-party Java applications across their entire family of products. Java applications run seamlessly alongside the Quantel feature set and are represented on the GUI by an extra menu box.

Scitex Digital Video (SDV)

Is porting the DveousFX real-time 3-D card to Windows NT. SDV intends to migrate not only toward NT, but also toward developments by Apple, as well as migrating DveousFX to the desktop for incorporation into the MicroSphere editing system. SDV supports drag-and-drop network transfer between its Sphere editing systems and is developing real-time networking using SSA technology.

Sony Electronics

Betacam SX family is a range of products aimed at news applications. It includes camcorders and the DNW series of hybrid recorders with tape-to-disk transfer at 4X play speed via SDDI. Non-linear editors include the DNE-50 portable field editor, DLE-110 live editor, DNE-1000 news editor, and the new DNW-A200 field-editing and DNE-700 digital news-editing systems.

Tektronix

Editing solutions include the Lightworks Newsworks non-linear editing system for tape-to-tape edit suite replacement and the 4-channel Lightworks V.I.P 4500 on-line broadcast-quality editing system.

Toshiba

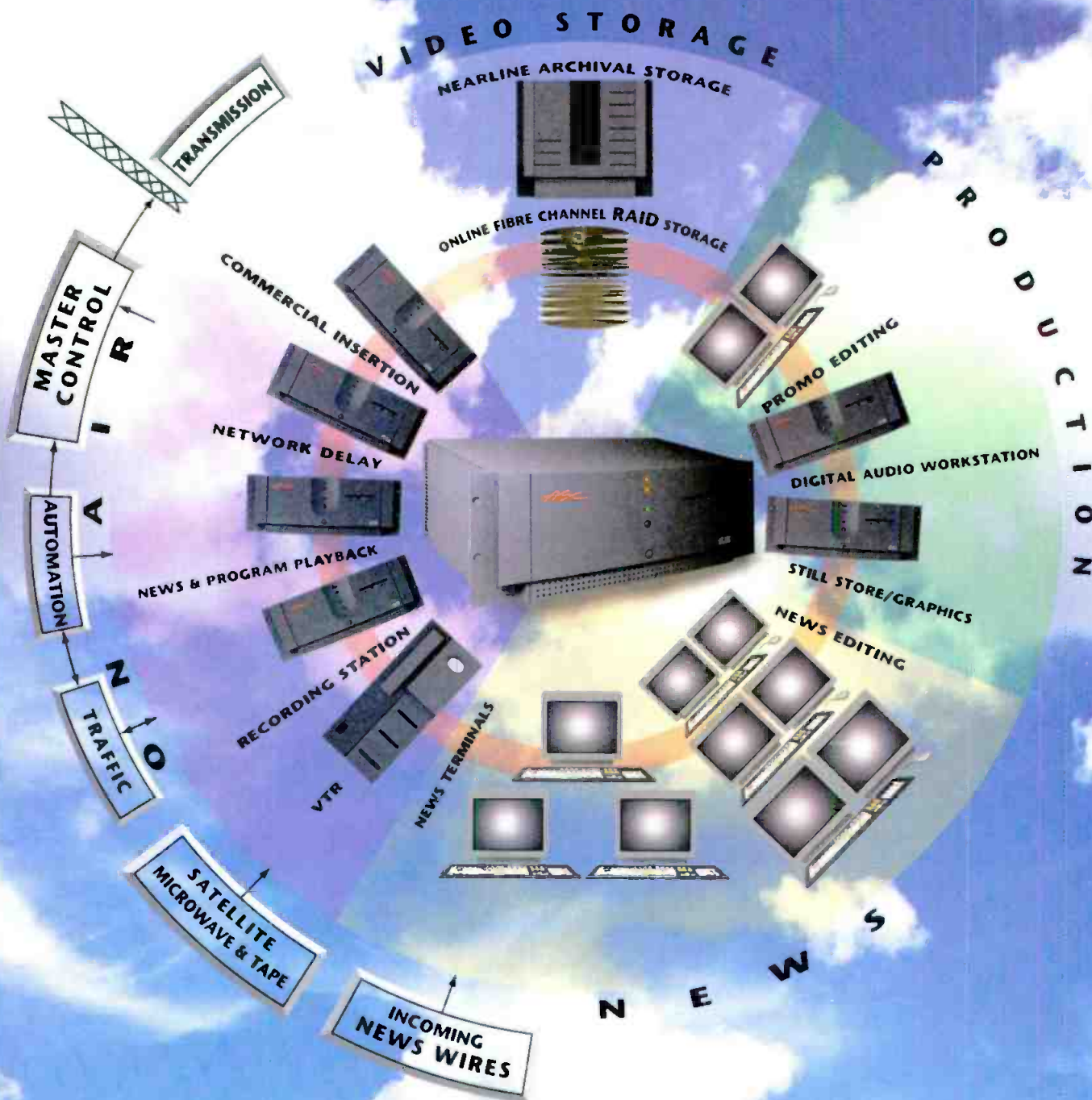
Non-linear editing system has various interfaces, including DVCS (DV format serial), FireWire and SMPTE 259M. It is designed to run on Power Mac or NT platforms and can be linked to a multi-function server and/or Panasonic DVCPRO cameras via a special interface.

Video Routing & Distribution

AJA Video

NTV series of framestores adds full SMPTE 259M serial digital video I/O to most PCI 2.1-compliant computer platforms, simplifying the export of computer graphics or other computer-managed material to ITU-601 digital video. Models feature a reference input with adjustable output tim-

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Product Directory

ing, auto timed inputs, dual frame buffers per channel and full 132Mb/s PCI burst capability.

AutoPatch

Has the "half-Y" series of routers. Available in 6x2, 8x2 and 8x4 configurations for mono audio, stereo audio and composite video, each features a constant full-matrix status display. With choice of connectors, the half-Ys complement the 1Y, 4Y and 8Y AutoPatch series by providing small footprint, low-cost options for non-expandable applications.

Datatek

Four systems now complete the all-format capability of the D2600 series: a 32x32 AES/EBU digital audio, 2RU; a 16x4 digital video/digital audio, 1RU; a 32-port RS-422 data, 2RU; and a 64x16 digital video, 2RU. The control system advantages of Datatek's larger D2800 series are also available with the D2600 series.

Di-Tech

Has a new version of its expandable Meridian Series 64x64 serial digital router that also accepts analog video, DS-3 and MPEG-2 signals. The unit is compact (6RU) with loop-through inputs, selectable reclock/non-reclock and redundant power supplies.

Kramer Electronics

Has the TP series, which includes the TP-1 and TP-5 video line transmitters and the TP-2 and TP-4 video line receivers. The TP-1 and TP-5 transmit video over any twisted pair wire to distances up to several hundred meters.



Leitch

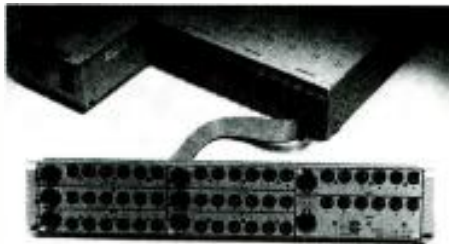
Has added to their Xplus and XPRESS router series. The Xplus series is a modular system featuring 1RU and 2RU mounting frames. There is an AES 16x16 module with coax interface and 32x4 video and audio matrices. The AES module offers optional "quiet-switching" outputs that provide clean, pop-free switches. The 32x4 video and audio matrices can be combined to form 64x4, 96x4 and 128x4 systems. The XPRESS switchers are low-cost, 12x1 monitoring routers. The new 12x1 serial video and analog stereo audio switcher includes built-in analog video monitoring, eliminating the need for an

external video converter. Leitch also has upgraded versions of its router control software products. EventWorks is capable of VTR machine control through V-LAN interfaces.

Circle (147) on Free Info Card

MetaWave

Routing switchers include the MX256 SDI routing switcher. The MX256 is housed in an 11RU rack frame, which can contain up to a 128x128 serial digital routing switcher with redundant control and power supply. The MX256 is available in sizes from 32x32 and is expandable in blocks of 32 inputs or outputs.



Multidyne

Offers the AIA-880 for the Leitch 880 series of audio DA trays. The interface uses ribbon cables to adapt the screw terminals of the Leitch tray to two panels housing 60 XLR connectors each, converting all 120 terminals to XLR. XLR panels are also available for Grass Valley and other DAs.

Circle (148) on Free Info Card



Nova Systems

Designed to accommodate the evolving video and audio interfacing needs of today and tomorrow, the StudioFrame signal processing system offers a comprehensive array of signal conversion, correction and distribution modules. Available products include serial digital converters, video/audio frame synchronizers, encoders, decoders, transcoders, time-base correctors, distribution amplifiers, routing switchers and noise reducers.

Circle (149) on Free Info Card

Nvision

Latest products include the NV1025 AES DA, which removes jitter in addition to

re-clocking and EQing digital audio. The NV1308SA synchronous AES routing module is a small router that ensures error-free switching of 44.1kHz or 48kHz AES audio signals by correctly aligning AES frame boundaries before switching, eliminating the need for downstream re-framers.



Philips/BTS

Has a wide range of routing systems based on the Venus and Mars routing switchers, Saturn master control switcher, and the Jupiter control system. Venus and Mars have 400Mb/s serial digital video capability. Saturn can be equipped with built-in 16-input switching matrices for self-contained operation, and no external router is required. Jupiter offers a family of intelligent interface boxes with configurables ports for ES-Bus devices, RS-422 serial controlled devices, BTS-ASCII control, or even to interface to third-party distribution switching systems.

Circle (150) on Free Info Card

Sierra Video Systems

Has routers to fit all your routing needs, including the Sierra series of small single and multibus routing switchers; the Tahoe series, mid-sized video and audio routing switchers; the Shasta series, serial digital video and routing switchers; and the Ponderosa series, large video and audio routing switchers.

Sigma Electronics

Offers several routing switchers. Among them are the DVS-1616, a 16x16 serial digital matrix routing system, and serial digital 16x1, 16x2, 32x1 and 32x2 source selection switchers. Two DAs accept a SMPTE 259M signal and output four of the same serial digital signal. The DAs also have a composite analog video output for monitoring. Each of these products are available in NTSC or PAL versions. Sigma also has an analog editing router with 4x4 switching of audio and video sources, plus a 4x1 RS-422 switch module to switch the editor control of source machines.

Tekniche

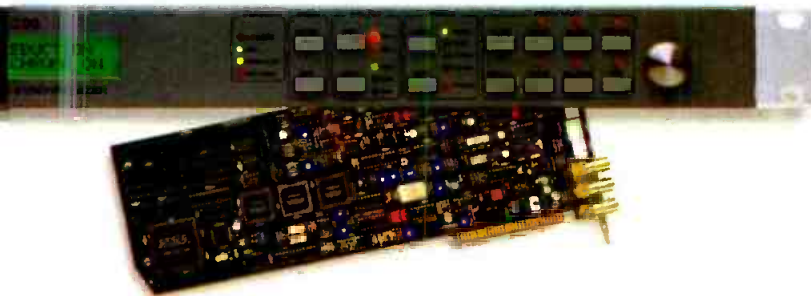
Offers the TACS (Technical Assessment and Control System), which uses the SMPTE 273 standard status monitoring

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Circle (31) on Free Info Card

www.americanradiohistory.com

Product Directory

and diagnostics protocol to provide a mechanism for communication among equipment racks, remote-control panels and a system supervisor PC.

Tektronix

Has added the ability to network multiple 7000 series units with remote control (across town or across country) via DS-3 phone lines.

Utah Scientific

Offers some advanced features of its SC-3 control system to allow greater facility management of the Utah-300 and all other Utah Scientific or Dynatech routers and control panels. Beyond open control protocols, the SC-3 offers reserved control ports, memory and processing for third-party control and switching equipment. A "2-level tie line switching" option allows speedy control of multifunction routing.



Video Accessory Corporation

Has the HBVB/VDA "Video Brick Hum-bucking Video Distribution Amplifier." Designed to reduce or eliminate hum and herringbone interference resulting from a ground loop, the single input/four-output VDA also provides additional gain to compensate for system losses. The EQVB/VDA-XL Brick Equalizing VDA is available to compensate for timing and amplitude errors, as well as interference created by long cable runs.

Circle (151) on Free Info Card



Videotek

Newest router is the RS-12A, a 12x1 routing switcher. It provides standard features like 12 video and stereo audio inputs, video or audio breakaway, serial interface and GPI control, the RS-12A offers high performance in composite, Y/C and RGB/component models.

Circle (152) on Free Info Card

Video Recorders, Servers & Still Stores

Ancor Communications

Ancor has the GigWorks line of Fibre Channel networking solutions. GigWorks products enable the high-speed transfer of large video, graphics and data files between servers, workstations, storage arrays and other peripherals typically used for video post-production, digital compositing and other production applications.



ASC Audio Video Corporation

The VR300 uses Fibre Channel as a disk storage interface, as well as a network architecture. Data compression ratios of 2:1 and greater are available; up to 24 streams of video can be manipulated at once. Data is protected using a RAID software implementation called RAIDsoft which eliminates the need for a dedicated hardware RAID controller, and allows a failed drive to be replaced with the data rebuilt in the background.

Circle (153) on Free Info Card

Avid Technology

The EditCam hard-disk camera/recorder/editor combination unit is products that include a DV-based multichannel playback server with Pluto Technologies. Avid also has the Media Recorder, NewsCutter and AirPlay systems.

Cinebase DMMS

Has a complete, all-digital media management system that can handle large archives of any digital content. The client/server application allows unlimited concurrent users to browse, output and manage content over any type of local or wide area network.



DPS/Digital Processing Systems

Has two disk recorder interfaces, the Perception video recorder series and the Hollywood uncompressed video recorder. These PCI and ISA bus computer cards must be installed in a host computer system. The Hollywood board set consists of three cards with an optional fourth card for a key channel. DPS also has the Vclips full-motion/still-store. Storage times start at 15 minutes and the unit can store any combination of audio/video clips and still images.

Circle (154) on Free Info Card

EMC Corporation

Has the Symmetrix Network Media Storage (SNMS) video and multimedia server. SNMS stores and streams video files in multiple formats and compression standards. The integrated cached disk array can be scaled for storage from 72GB to nearly 3,000GB with up to 4GB of cache memory. SMNS is an open solution that can be easily integrated into such applications as video asset management and tapeless broadcasting.

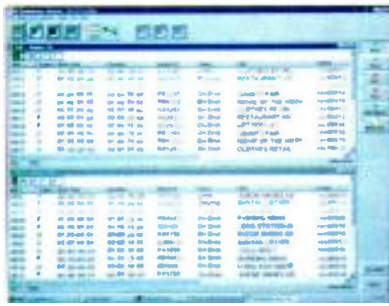


Fast Forward Video

The advanced Omega Deck series is a new range of stand-alone, multifunctional digital video decks that includes the Omega Deck (single channel), the Omega Double Deck (dual-channel version) and the Omega RAID Deck (dual channel with built-in RAID controller). All deliver the advantages of smooth random access, non-linear editing with the same industry-compatible controls for recording, playback and more.

Circle (155) on Free Info Card

Product Directory



Hewlett-Packard

Features the MediaStream broadcast server, as well as the new MediaStream disk recorder. The MediaStream disk recorder offers many of the features of a broadcast server in a smaller package at a smaller price. It features up to 18 hours of storage, RAID protection and Fibre Channel networking. The recorder can be used as a stand-alone unit or combined with the MediaStream broadcast server.

Circle (156) on Free Info Card

IBM

Offers LogiCast, which includes the video server, along with IBM system integration and support. LogiCast also includes key products and services from leading companies in the broadcast industry. IBM's server, the MediaStreamer, provides multistream payout of video content. MediaStreamer can be expanded to deliver from one to 42 streams of MPEG video over standard NTSC and PAL interfaces. Using an RS/6000 RISC-based platform, the MediaStreamer can store more than 1.2TB of content.

JVC

Will soon have a 4-audio-channel Digital S VTR that can also transfer data at 2X normal speed. Current machines only use two audio tracks. Other decks include the BR-D750U recorder and BR-D350 player, BR-D40 dockable recorder and BR-D51 digital S/VHS player. JVC also has the BR-DV10 mini-DV dockable recorder, MW-S1000 non-linear editor and SR-W5U W-VHS HDTV recorder/player.



Leitch

Builds the StillFile 2, which features a GUI

interface to allow users to customize their informational displays to show such information as thumbnail images and/or file information. They also offer the Gateway Object Server (GOS) which can perform graphic file format translations and network file transfers.

Circle (157) on Free Info Card

Matrox

Offers the DigiSuite board set for video recorders running Windows NT. These boards are used in video recorders from many non-linear editing system vendors. The DigiFusion addition allows DV video to be recorded on hard disk using IEEE1394 (Firewire) and other interfaces.

MegaDrive Systems

Offers data management, mass storage and network topology solutions connected to state-of-the-art systems over a fiber network. The EV-1000 is MegaDrive's next-generation storage system that is based on the Enterprise E-8 disk array, the EV-1000 Fibre Channel and Ultra SCSI RAID systems provide up to 200MB/s throughput while delivering continuous online availability.



MountainGate

The CentraVision is billed as the first complete Fibre Channel network solution. It allows multiple workstations to be linked to large storage systems. All workstations, whether Mac, SGI or other PCI-compatible stations can run on the same network, share the same files and work together. The CentraVision network operates at speeds up to 100MB/s and storage capacity can be built from 36GB to more than 1TB. The CentraVision VDR treats control and storage independently and allows users to configure systems with the amount of storage they need today and expand in the future. MountainGate also has the RCM, a rack-mountable stand-alone RAID controller module. A single RCM allows multiple hosts to be connected to multiple storage systems, each independent of the other.

Circle (158) on Free Info Card



Newtek

Video Toaster Flyer offers record times from 3.5 min/GB (HQ5) to 7.5 min/GB (EP). Other Toaster products include a switcher, CG and paint functions.

Circle (159) on Free Info Card



Orban

AirTime offers an easier way to create, store and deliver voice-overs for news updates and program highlights. Last-minute edits and changes are easy. The serial connections can dovetail directly with your existing automation equipment. AirTime allows high-quality audio that's instantly available throughout the station for revisions or on-air broadcast.

Circle (160) on Free Info Card

Panasonic

The DVCPRO product line includes a 4X transfer recorder/player (AJ-D78) and the AJ-D220 and 230 desktop viewer and recorder. A 50Mb/s version of DVCPRO called DVCPRO50 has been announced. Products included AJ-D950 studio VTR and AJ-D900W camcorder. HDTV and 525P adapters allow D-5 VTRs to be used for recording 1125I HDTV and 525P signals. Panasonic's NewsByte system stores more than 70 minutes of video and audio using the DVCPRO compression algorithm.

Product Directory



Philips Broadcast Television Systems

Offers Media Pool XL series, including the XL-2100 (2-channel), XL-3100 (3-channel) and XL-4100 (4-channel) systems. An archive system consists of the Media Pool video server, StorageTek's Media Vault robotics tape library and the Media Pool Archive Manager software application. Philips also has DVCPRO products, including the DCR75 laptop editor.

Circle (161) on Free Info Card

Pioneer

Has the VDR series of video disk recorders. The VDR-2000 is an entry-level recorder that can be controlled using RS-422 serial links. The VDR-2100 and 2200 model offer front-panel controls and are expandable with SCSI-2 hard drives. The VDR-3500 offers unlimited storage with dual-channel, motion-JPEG compression. For still-store and graphics applications, Pioneer has the Digital FastFile, an integrated still and clips storage system that runs on Windows 3.1 or higher systems and offers a variety of I/O configurations for integration into facilities.

Pluto Technologies

Space is a full-bandwidth, 8- or 10-bit digital video recorder that operates just like a VTR, but uses disk drives instead of tape. With network interfaces, Space can replace your VTR and be the beginning of facility-wide networked storage. Depending on the disk drives installed, it can provide storage of 10 to 120 minutes of video and two channels of audio.

Quantel

Offers a full line of graphics and storage systems. EditBox features advanced image tracking capability, keyframeable color correction and an extra video layer. The

ClipBox video server features Highlight. Key sequences from sporting events are saved into predefined categories and then a highlight package can be built using these categories. Quantel also supports the Java programming language across their product line.

QuVis

Offers the QuBit Intelligent video recorder, which uses wavelet compression and a compression ratio based on signal-to-noise ratio. Also adjustable are bandwidth and data rate parameters. Internal hard disk and tape drive options are available.

Rorke Data

Has a line of digital recording products that includes the VMOD-100, which can provide 90 minutes of SVHS-quality video. It is designed to add random access video to an audio workstation and is compatible with many DAW products. Rorke also has the Maxxarray disk array and Rack 'n Roll custom configurations. Interface options include ATM, Fibre Channel, Ultra-SCSI, FDDI and 100baseT.

Sierra Design Labs

Product line includes the introduced the QuickLook system, which allows full-resolution file images (up to 2K pixels by 2K pixels) to be inserted in 720x486 pieces on standard RGB monitors. Other equipment includes recorders which allow one to 120 minutes of uncompressed digital storage, and a dedicated multirecorder control panel for VDRs and VTRs. NFS Server, which makes it easy to get files from a large network to a digital video disk recorder, allows any connected NFS-compliant device on a network to access a Quickframe or Diskcovery as a fully mounted disk drive with file structure support.



Silicon Graphics

Streamcaster is multichannel digital broadcast playout software that enables the

management, scheduling and playout of more than 100 channels of stored MPEG-2 compressed digital video, audio and data. Key components include an asset manager and a playlist manager that are based on Java technology. Streamcaster includes support for RAID disk solutions and MPEG-2 multiplexers and can be customized to meet specific output stream, compression rate and storage requirements.

Circle (162) on Free Info Card

Sony Electronics

Has the Betacam SX line, which includes the DNW-A220 portable field-editing system, DNW-A20 digital portable field viewer, DNW-A31 high-speed feeder and recorder (allowing up to 4X transfer), DNE-700 digital news-editing system, DNW-A30 and DNW-30 videotape players, DNE-100 non-linear news-editing station, DLE-110 non-linear live-editing station and DNE-50 digital editing systems. For HDTV recording, there is the HDW-700 digital widescreen high-definition camcorder, which uses the HDCAM recording format. The HDW-500 editing VTR is also based on HDCAM and can edit tapes recorded in the camcorder or be used for stand-alone compressed HDTV recording. Sony also has a full line of analog Betacam, Digital Betacam and DVCAM products. On the server side, Sony offers the AirTraC, a customized software application for the Sony VideoStore.

Storage Concepts

Has the VideoStar MPEG-2 video server. It is aimed at high-quality, video-on-demand markets. It also has the FibreRAID disk server array, which is targeted at high-end uncompressed storage applications.

Sun Microsystems

Offers the MediaCenter media server. MediaCenter is based on the UltraSparc platform and uses standardized hardware, a 64-bit file system and software packages to build media servers that meet the demands of a variety of applications. It can play back any combination of MPEG-1 and MPEG-2 compressed video datastreams up to a 100Mb/s sustained total output rate.

Tektronix

Has the PDR200 disk recorder, which features 9GB drives, 24-bit AES audio, RAID operation and Fibre Channel networking. The PDR200 can also work with a DLS200 data library system and a PDX208 external 8-drive expansion chassis.



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Product Directory



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Comprompter

Offers a Windows 95-based prompting system.

CPC (Computer Prompting & Captioning Co)

CPC's products include the CPC-600, -700, -800, -1000 and -2000 models. The versatile IBM compatible software can be used for post-production closed captioning, subtitling and teleprompting. CPC's Smartprompter II is one of the most powerful and easiest to use prompters on the market. CPC can configure a turn-key system to meet your needs.

Fujinon

Has an LCD-based prompter for use with portable cameras. The WP-16B-04A is designed to function as a lens accessory.

Microframe

Has a line of super large countdown timers for studio production. They can communicate time remaining to the stage, or they can be used to time live radio and TV broadcasts. Their large displays (single or dual) can easily be read from 100 feet. A unique capability gives a speaker "two-minutes-till-start" countdown by programming counter "B" to start when counter "A" stops.

Miller Fluid Heads

Offers a series of products designed for the new age of cameras. Its Arrow 50 product

line makes effective use of colors to make adjustments easier, and all adjustments are rear-mounted and illuminated for use in low-light conditions. Miller also introduced a pair of complete support systems for DV, DVCAM and DVCPRO camcorders, the DS-5 and DS-10.

Mirror Image Teleprompters

Offers computer based teleprompter systems. A line of prompter monitors includes 9, 12, 14 and 17-inch NTSC models as well as VGA monitors that connect directly to computer systems. Other products include portable/foldup teleprompters and a new 14-inch VGA LCD panel teleprompter.

Nigel B. Furniture

Latest creations include a monorail-type ceiling-mount system that permits everything from speakers and monitors to new flat plasma displays to move across a room so that clients or editors can place them in the right spot. Unlike conventional track systems, Nigel has cleverly built tracks and cradles that resist swaying. More important, they have a parallel track that allows the audio or video signal to follow the monitor without the need for wire paths.

O'Connor Engineering

Offers a tripod dolly constructed of fiber material. The unit is lightweight, durable and is available with a 27-inch spread for wheeling through narrow doors.

Circle (163) on Free Info Card

QTV

Offers a complete line of teleprompter cueing equipment and computer prompter software programs. On-camera prompters include the award winning FDP-II flat

display prompter and the FDP-14 studio flat display prompter. Other products include 9, 12, 15, and 17-inch CRT prompters for studio and remote applications.

Reel-A-Pail

Quick Winder looks like a bright-yellow 5-gallon paint bucket. The stackable Quick Winder models hold up to 750 feet of ¼-inch cable or 100 feet of ¾-inch cable. Exit access is through a wide hole in the front of the pail, but when the shoot is done, you simply wind the cable back without a mess, pick up the handle and carry it off.

Rosco Labs

Has the Horizon PC-based lighting control console, which operates under Windows 97. The Intelligent Power System is an innovative range of IGBT-based dimming and control products with dimmer technology that changes TV lighting practice in ways that SCR dimming products cannot. It reduces studio lighting setup time and labor requirements.

Sachtler

Product lines include camera support and lighting equipment. Newer camera support products include the Studio 9+9 and the Video 60, the first film OB head with nine steps of drag.

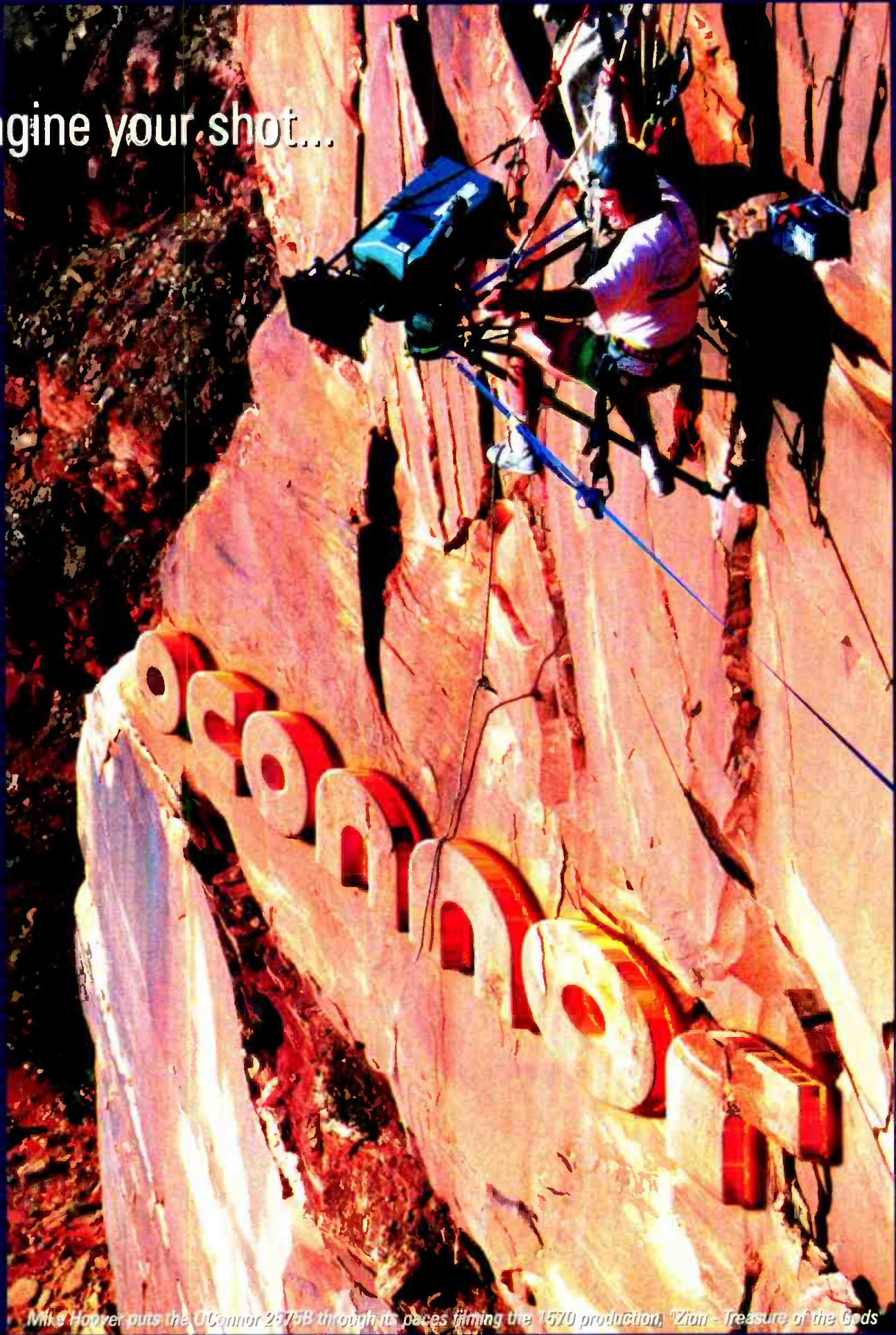
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Tekskil Industries

Product line includes the Genesis 12-inch computer prompter and the Companion 9-inch portable prompter and a lightweight gas plasma ENG prompter.

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www.americanradiohistory.com

Product Directory

Telescript

Prompter systems are DOS-based. The new TelescriptPRO features big system performance on small computing platforms.

Vinten

Has the Quattro Studio Pedestal with a

new triangular column structure that provides maximum rigidity with minimum torsional twist. The Quattro provides perfect balance for payloads up to 242 pounds from 16 inches off the ground to a height of 56 inches.

Video Test Equipment

Belden

Products include wiring and cable for RF, video, audio and data applications. Recent introductions include super-flexible snake cables, plenum speaker cables, and high flex, high power RF transmission cable. For video, Belden offers high flex miniature precision analog and digital video coax for mobile truck and video patching applications, a plenum-rated RGB video cable and a new high flex triax cable.

CANARE

Products include the DVJ-W and DVJ-S digital video jacks and patchbays designed to pass signals to 1.4GHz and increase the overall transmission distance of digital video broadcast signals. Both employ aluminum clam-shell housings and high-grade, hermetically sealed, double reverse action microswitches mounted on a shielded printed circuit board. Two precision 75Ω metal film resistors provide signal path termination and channel isolation.

Circle (164) on Free Info Card

Clark Wire & Cable

800 series AES/EBU digital audio cables come in 1-, 2-, 4-, 8- and 12-channel snakes that are color-coded to the resistor code for easy identification. The 2-pair cable is ideal for bidirectional dubbing hookups between individual pieces of equipment, such as a DAT machine to a hard-disk recorder. The multipair cables can be used for digital duplication and digital production while minimizing the number of cable runs between rooms and racks.

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Solutions For The Digital Frontier And Beyond

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Leader Instruments

New LV 5100D digital/analog component waveform monitor and vectorscope

Product Directory

handles one component analog and two component digital sources for use with mixed systems. The unit has the features of an analog component WFM, while providing access to digital data, EDH flags, ANC data, etc. An X-Y display is provided for audio monitoring and a monochrome picture display is available for program and/or source ID purposes. The LT 425D digital component signal generator provides features, such as one parallel and four serial outputs, 12 key test patterns, plus two programmable test patterns for compression testing.

Circle (165) on Free Info Card

Snell & Wilcox

Product line includes MPEG test equipment. The MSA 100 MPEG elementary and transport analyzer provides real-time analysis and compliance testing of MPEG transport streams. The MVA 100 video analyzer complements the MSA 110 unit.

The MVA 100 can be used for extended MPEG-2 video analysis at picture, slice and macro block levels. The integral proprietary decoder is designed to support every encoding mode in MPEG-2 Main Profile at Main Level. A second video monitor can be connected for graphical analysis. The MSP 100 MPEG bitstream player supports 0 to 144Mb/s streams.



Newtek

Calibar is a pen-sized, NTSC test signal generator that packs a rack-mount's worth of test equipment into a battery operated instrument. Designed for both studio and field operations, it produces 24 test pattern functions, all at the touch of a button. Its 10-bit 4fsc precision digital-to-analog conversion assures highly accurate signals.

Circle (166) on Free Info Card

Philips TV Test Equipment

Offers the PT 5210 VariTime digital sync generator. It is designed to operate as a master or slave sync generator in digital, analog or mixed setups. The basic unit can be used for a small edit suite. Adding modules allows the unit to control large studios with several time planes and digital AES/EBU audio.

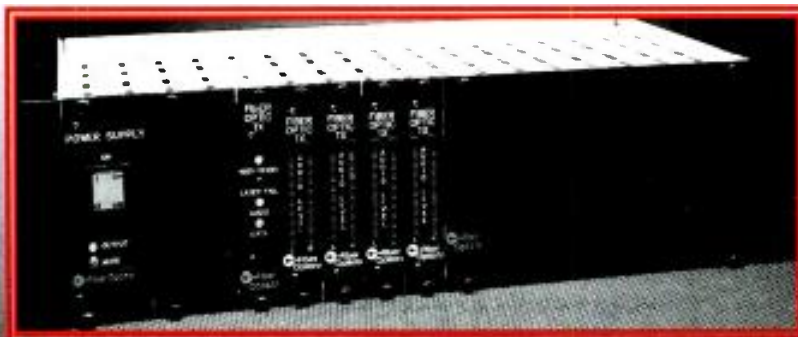


Sencore/AAVS

PC-based SV953 MPEG-2 Stream Station provides the complete test solution for testing and analyzing MPEG-2 digital video broadcast signals. The SV953 gives users the capability to record, playout, monitor (in real-time) and perform a complete analysis of the recorded MPEG transport stream. The new DVA320QC digital video quality control analyzer provides a fully functional digital video analyzer and quality control tester in one comprehensive instrument. It tests component and composite serial digital video signals in 525- and 625-line formats.

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Product Directory

Tektronix

Products include the MTG200 MPEG test generator, MTD200 MPEG test decoder, DVT200 digital video transmitter and DDS200 digital demodulation system. Applications include design and development of network equipment and integrated circuits, IC sample testing, production testing for DVB decoders and operational monitoring for DVB. The products perform functions, such as creating, generating and analyzing MPEG transport streams, converting transport streams to digitally modulated RF signals, converting received signals to a transport stream, and checking the RF performance of the transmitted signal. The new WFM601A provides accurate monitoring of serial component signal levels and timing.



Trompeter Electronics

The ADRMF70 is a right-angle TRB male-to-female adapter for Trompeter's line of twinax/triax interconnects. It features a concentric design throughout and is ideally suited for telemetry and ground support LSS3 data bus applications where cable management, strength and security are priorities.

Circle (168) on Free Info Card



Videotek

VTM-200 multiformat on-screen monitor accepts two composite analog and two composite serial digital video inputs. It displays real-time video in one quadrant, waveform in a second, vector in a third and four channels of audio and phase differences in the last quadrant. All of this is on an 800x600 SVGA display, including full-screen display of any quadrant, waveform zoom and line select. The TVM-821D serial digital waveform vector display measures 601 digital signals. This low-cost half-rack unit includes features, such as no menus, white phosphor, easy-to-read LED indicators for input EQ and gain, EDH, gamut and data errors. This unit also includes the unique feature of A/B input parade and overlay that can be used for system timing and camera matching.

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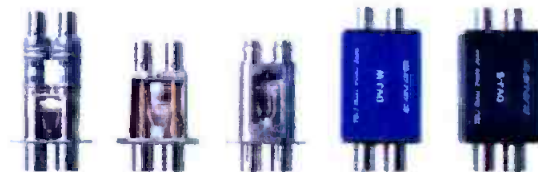
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Our front loading DVJs, with expanded bandwidth from DC to 1.4GHz, now fit quite comfortably into 26 position panels. And last but not least, our DVJs come with the industry's first published lifetime warranty.



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compare our DVJ-W and DVJ-S with any other digital video jacks. Can you find one good reason not to switch to Canare?

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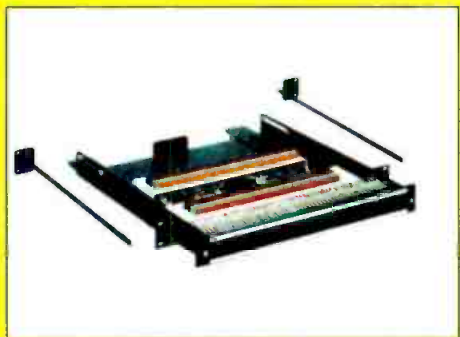
do your job better. Just the thing you need to take a big bite out of digital television. So don't get caught playing "ketchup" in the transition to digital, take a leading role with the magazine leading the way - Broadcast Engineering - The Journal of Digital Television. Look for the new Broadcast Engineering in January 1998.

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Reader Pick Awards

Here they are! Based on the total number of reader service inquiries for new products during the last 12 months, here are the 20 hottest new products as selected by *Broadcast Engineering* readers.



ADC Telecommunications Inc.

ProPatch audio patchbay pull-out panel. Designed for truck or studio applications where front access to terminations is needed. The pull-out panel eliminates the need for rear access by sliding the jacks and terminations forward out of the rack.



E-N-G Mobile Systems

OmniLink 2000. A lightweight ENG van fully equipped for satellite and microwave transmissions. The turnkey system combines standard ENG functionality with high-performance SNG capabilities for analog and digital uplinks.



Equi-Tech Corporation

Balanced power AC systems. The AC systems meet legal and safety standard for power distribution. The systems eliminate hum and buzz in audio and video systems caused by AC power supply transients and interference.



Hitachi Denshi America, Ltd.

VC-5431 color LCD digital video scope. This portable oscilloscope provides measurements for video and signal applications in one compact unit. It combines an active-matrix color LCD, 50MHz, 30Ms/s/Ch, deep 2k W memory, timed data acquisition oscilloscope with vectorscope, waveform monitor and a full-color monitor.



Fostex

D-15 digital master DAT recorder. The chase-lock-capable digital master recorder has full time-code functionality. It is a fully featured recorder with an extremely intuitive graphical user interface.

Reader Pick Awards



JK Audio

RemoteMix C+ portable mixer. This battery-powered telephone/mixer has two balanced XLR microphone inputs, RCA jacks for tape send and receive, and a headphone jack. You can plug the mixer into a regular RJ-11 wall jack or a fax/modem adapter connected to your cellular telephone.



JK Audio

RemoteMix telephone handset interface. The telephone handset interface replaces the handset of your telephone with a mini broadcast console. So when you want to do a remote broadcast, all you do is replace the handset with RemoteMix, choose a dial line and dial from the phone.

Panasonic

600 series DVCPRO VTRs. This series is made up of the AJ-D650 studio editing deck, which delivers complete editing functions, and the AJ-D640 recorder/player, which provides a cost-effective solution for high-quality DVCPRO recordings and playback.



Panasonic

LQ-D5500 recordable digital optical disc recorder/player. The record/erase digital optical video disc recorder/player provides broadcast-quality, high-density digital recordings. It records up to 41.5 minutes of DVCPRO video and two high-quality 48kHz/16-bit digital audio channels.



Panasonic

AJ-D200 DVCPRO camcorder. The digital DVCPRO camcorder is able to use the large DVCPRO cassette with 123 minutes of recording time. With three 1/3-inch CCDs, it incorporates a high-density interline transfer CCD giving a resolution of 480,000 pixels. The camcorder comes equipped with lens, viewfinder, tape and battery.



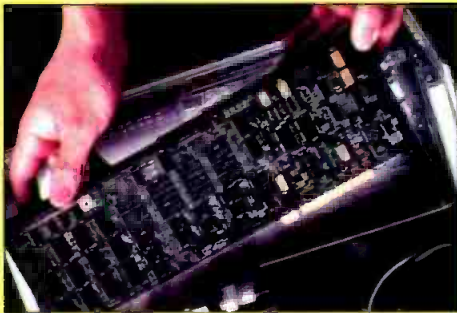
Philips Broadcast Television Systems Company

VDR family of disk-based video recorders. The VDRs offer the convenience of tape-based systems with the advantage of digital recording. It has switchable 525-, 625-line configurations and provides all interfaces for seamless integration into production or post-production use.



RGB Spectrum

SuperView 1000 multivideo windowing system. The system displays multiple live video images on a single screen. Video input signals may be NTSC, PAL or S-Video, and the display screen may be any monitor or data display projector up to 1,600x1,280 pixel resolutions. It features pan and zoom, independently positions and scales windows, and automatically gen-locks to a computer signal for overlaying graphics.



Pinnacle Systems

GeniePlus post-production system. A complete set of professional-quality, real-time 3-D digital effects, switching, character generation, paint and still storage available on a single PCI board. It integrates easily into most linear desktop editing environments.



Sony Electronics

PCM-7040 digital audio recorder. The recorder supports a wide range of DAT recorders and editing functions, including a time-code reader/generator, digital I/O, memory start, RS-232C interface and edit memory.

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Spencer Technologies, Inc.

SS-2000 broadcast still-store. The broadcast still-store is designed for TV news and it also meets the needs of production with its built-in linear keyer and a DVE. The dual preview channels still search without disrupting on-air playback.



Sony Electronics

Media Forum educational video series. This 5-part videotape series shares more than 40 years of experience in simultaneous development of media and hardware. It covers troubleshooting, tape handling, a step-by-step look at the manufacturing process, and the fundamentals of magnetism and understanding spec sheets.



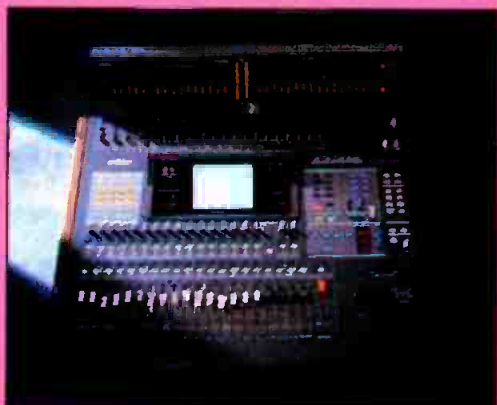
Tascam

564 Digital Portastudio integrated mixer/recorder. A minidisc recorder that combines the operational ease of the Portastudio line with random-access capability and a convenient means for data storage and exchange. It provides numerous random-access functions and enables you to record up to five takes of a given track.



Thomson Broadcast Systems

Microcam 3-CCD broadcast-quality camera. The camera is derived from the 1657 and consists of a 1657 camera modified so that the scanning block can be detached from the image-processing section and mounted separately. The Microcam has all the features of a studio camera.



Yamaha

02R digital recording console. The console offers real-time automation with snapshot memory and instant reset of all console parameters, including control of its internal compressors and effects. It is the solution for project studio recording, audio post facilities and the modular digital multitrack, whether hard disk or tape.



Truevision

TARGA 2000 RTX real-time video system. This upgrade brings real-time processing and the highest I/O throughput at the desktop and is designed to meet the needs for an open system solution for non-linear editing and desktop multimedia production.



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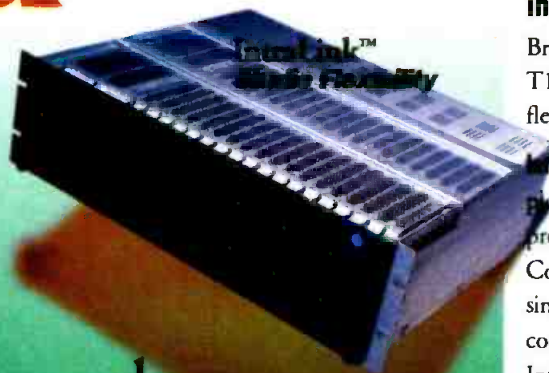
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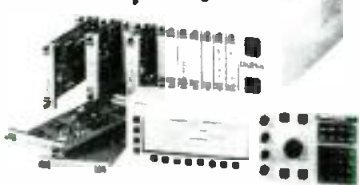
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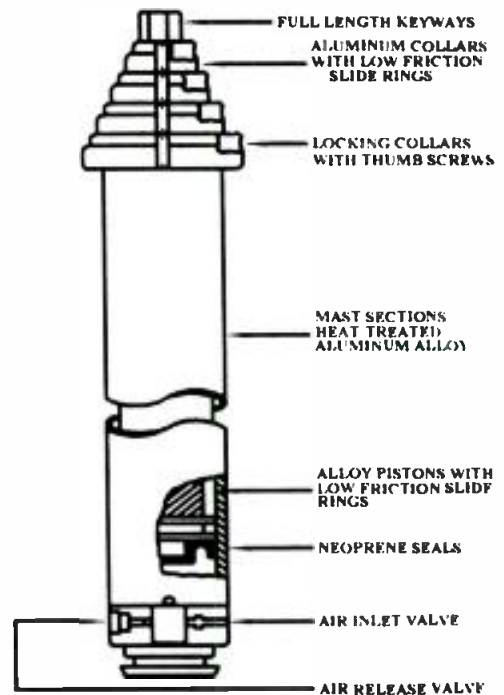
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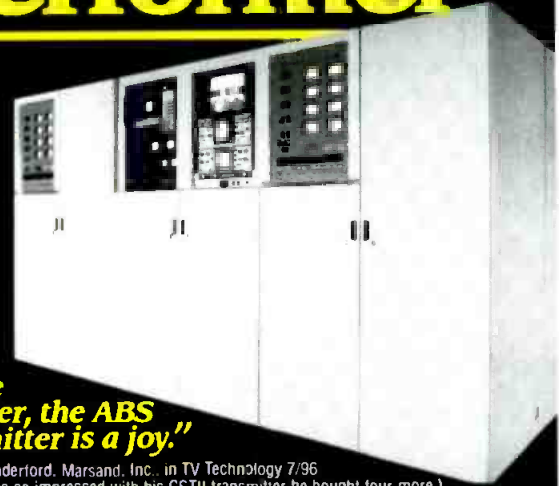
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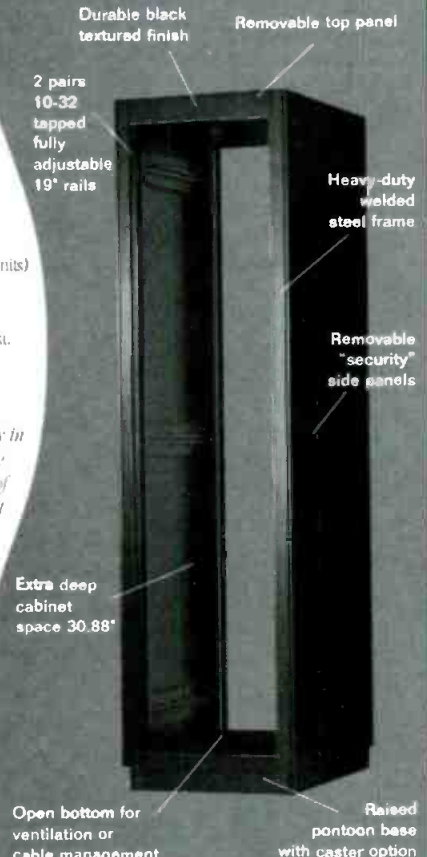
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773-631-1234; Fax: 773-792-2129
Web: www.switchcraft.com

SWP Inc
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Edensburg PA 15931
814-472-5436; Fax: 814-472-5552

Symetrix
14926 35th Ave W
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425-787-3222; Fax: 425-787-3211
E-Mail: wisymetrix@aol.com
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Synergistic Technologies Inc
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SyntheSys Research
3475-D Edison Way
Menlo Park CA 94025
650-364-1853; Fax: 650-364-5716
Web: www.sythsysresearch.com

Systems Development Group Inc
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Web: www.tannoy.com

TASCAM/Teac Profession
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213-726-0303; Fax: 213-727-7635
Web: www.teac.com

Tayo Industries
7510 Sunset Blvd #537
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213-538-5862; Fax: 818-787-0419

TBC Consoles
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TDK Electronics
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TECH-SA-PORT
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Techflex Inc
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Techni-Tool Inc
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Tektronix Video & Network Div
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Television Engineering Corp
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Trompeter Electronics Inc

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TWR Lighting Inc
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713-973-6904
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Union Connector
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United Ad Label Co Inc
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United Media
4771 E Hunter
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UREI
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818-893-8411
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US Tape & Label Corp
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St Louis MO 63132
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Fax: 314-423-2964
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Utility Tower
PO Box 12369 / 3200 NW 38th
Oklahoma City OK 73157
405-946-5551
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Valcom Limited
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519-824-3220
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VAS Group Inc
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VEAM/Litton Systems Inc
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Vetronix Inc
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Lexington NE 68850
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Vertex Communications Corp
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Victory Battery Co
1508 W Burbank Blvd
Burbank CA 91506
818-840-2766
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VidCAD Documentation Programs
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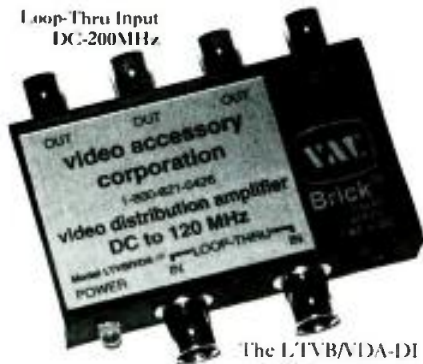
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BROADCAST ENGINEERING (ISSN 0007-1994) is published monthly (except semi-monthly in July and December) and mailed free to qualified persons by Intertec Publishing, 9800 Metcalf, Overland Park, KS 66212-2215. Periodicals postage paid at Shawnee Mission, KS, and additional mailing offices. Canada Post International Publications Mail (Canadian Distribution) Sales Agreement No. 0956295. POSTMASTER: Send address changes to *Broadcast Engineering*, P.O. Box 12902, Overland Park, KS 66282-2902. CORRESPONDENCE: Editorial and Advertising: 9800 Metcalf, Overland Park, KS 66212-2215. Phone: 913-341-1300; Edit: fax: 913-967-1905. Advert. fax: 913-967-1904. © 1997 by Intertec Publishing. All rights reserved.

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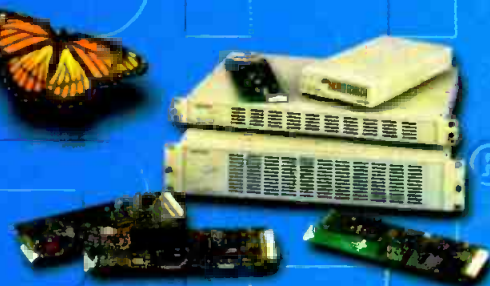
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