

Get The Scoop Anywhere, Anytime

ield reporting the way it's supposed to work. Introducing the all new Scoop Reporter II portable CODEC from AETA Audio. This rugged unit combines POTS and ISDN facilities with

an integrated three-channel mixer and internal battery supply. Featuring 99 user programmable presets, the Scoop Reporter II will

handle two microphones and one line level input. A balanced XLR output can be used for studio producer IFB and Mix-Minus feeds from studio, or to feed the local PA. The Scoop Reporter II will operate on voltages from 85 to 240 volts at 47 to 440Hz. When AC is not

available or fails, the unit will run on standard "D" cell alkaline batteries. The intuitive interface is so easy to use, your talent will be able to run a remote broadcast with no technical assistance. And with our 24-hour technical support, you'll never miss another field report. The Scoop Reporter is the all-in-one box that will get the scoop anywhere, anytime.

- All-in-one-box with "D" cell backup
- Supports G.711, G.722, ISO/MPEG Layer II, ADPCM and J.52
- ISDN or POTS
- Three-channel mixer
- PC programmable
- Send and receive 20kHz audio at 128kbs with ISDN
- Send and receive 7.5kHz audio with POTS

Available through most broadcast equipment suppliers





AETA AUDIO CORPORATION

75 Fleetwood Dr. Suite 200 · Rockaway, New Jersey 07866 Phone: (973) 659-0555 Fax: (973) 659-9555

www.aetausa.com

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DADPRO32 offers all of the features and functionality demanded by today's progressive broadcast facilities. Utilizing standard off the shelf non-proprietary hardware, network architecture, and operating systems, DAD is the logical choice for both Automated and Live Assist On-Air operations, Production, News, and Inventory Management. DAD supports Orban Sound Cube Technology, transparent links to the Orban Audicy Multitrack Editing System, sharing of data with other software applications for Wire Capture & Editing, Scheduling & Billing, and the Internet, as well as interface to other professional broadcast control and switching equipment. And DAD comes with free software upgrades for the first year, permitting immediate access to all of the latest features supported by rapidly emerging technology and evolving broadcast industry requirements.

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C O M M U N I C A T I O N S P R O D U C T S



Welcome to the fourth annual BE Radio Product Source, the issue dedi cated exclusively to covering the products that apply to the radio industry.

As you can image, the spectrum of product offerings is expansive. This issue will serve as a broad outline of what's on the market. This particular edition should prove an invaluable guide in your equipment selection process as your station moves into the next century: Use it as a reference tool when you need to buy a mic or equip an entire facility.

Many of the products listed were unveiled at NAB99, including the BE Radio Pick Hit winners; some are even more recent entrants to the market.

So take a look at the following pages for the latest releases and market trends. Whatever your station's size and budget, you're sure to find something you've been looking for.

Let us know what you think of the issue. Send your comments to us at BE Radio, 9800 Metcalf Ave., Overland Park, KS 66212-2216 or e-mail us at beradio@intertec.com.

Dam Martin Dana Martin, associate editor

CartWorks Audio Formats Pg. 18 Orban Audicy Pg. 28 Propagation Systems Inc. **Neutrik USA** M Broadcast Minirator Antennas MR1 Pg. 10 Pg. 18 **EVI Audio** R200 360 Systems Pg. 52 TCR8 Tannoy Pg. 48 Reveal Active Pg. 12

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Meet the "Morning Show Team"



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There is nothing faster, easier, or cooler! You can finally let go of your analog cart machines and associated maintenance headaches. Or, if you're running automation, now you have the perfect compliment for those times when you need to play something, and you need it now.

Fast and easy editing for news and listener call-ins.

The New Short/cut '99 has arrived!

Short/cut '99 delivers these exciting new features:

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- D-NET™ Echo

Get superior audio quality, true cut-and-paste waveform editing, massive hard disk storage and support for external removable media drives,* all in one compact, easy-to-use package.





Attention call letter stations.** You're only a phone call away from a free 10-day Test Drive. So try it out. We'll understand if you don't give it back.

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*Optional Zip™ drives available from 360 Systems. **Offer good in U.S. and Canada only.

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See us at NAB Radio Show Booth #1351

Radio Systems: StudioHub



StudioHub has plug-and-play cable harnesses, patch panels, integrated

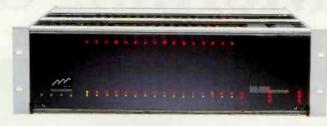
balancing amps and accessories. The first rewired cabling system for digital-ready operation. CAT-5 shielded twisted-pair cables efficiently route analog and digital signals throughout a facility. Features premade source cables for all types of studio gear and quick-connect blocks

powered with the built-in DC-link system. (609) 467-8000; fax (609) 467-3044 sales@radiosystems.com; www.radiosystems.com

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quick connects with RJ-45 jacks, and all peripheral products are phantom

Sierra Automated Systems (SAS):

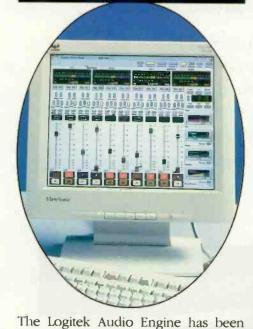


The SAS 32000 audio routing switcher microprocessorbased audio switching and summing system is configurable and modular. A 32 stereo input/16 stereo output switching subsystem housed in a 3RU frame is the heart of the system. Each frame houses

all input amplifiers, crosspoint cards, output amplifiers and power supplies as required for a complete system. Available controllers range from a single control panel per output to powerful menu-driven terminals of total system access.

(818) 840-6749; fax (818) 840-6751 sales@sasaudio.com; www.sasaudio.com Circle (202) on Free Info Card

Logitek: Vmix software

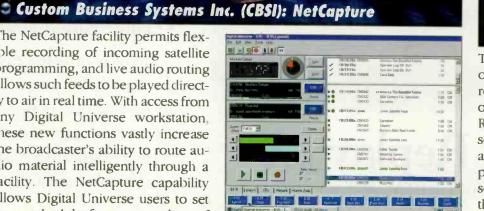


ible recording of incoming satellite programming, and live audio routing allows such feeds to be played directly to air in real time. With access from any Digital Universe workstation, these new functions vastly increase the broadcaster's ability to route audio material intelligently through a facility. The NetCapture capability allows Digital Universe users to set up a schedule for prerecording of

The NetCapture facility permits flex-

satellite inputs. Schedules can be entered by exact time or by other parameters: for instance, to begin recording upon receipt of a specific tone. As many as eight different sources can be recorded simultaneously from a single machine.

(800) 547-3930; fax (541) 271-5721; info@cbsi.org; www.cbsi.org Circle (203) on Free Info Card



MediaTouch: Card Independence

The new Card Independence technology allows broadcasters to play and record CD-quality MPEG Layer II audio on any standard Windows sound card. Rather than relying on microprocessors embedded on the card to encode and decode MPEG audio, Card Independence contains the processing in a software codec. Card Independence is the core technology in the new CD Ripper utility that, in less than real time, converts music CDs to MPEG Layer II audio files without dubbing.

(888) 665-0501; fax (352) 629-7000 omt@omt.net; www.omt.net Circle (204) on Free Info Card

Inovonics: Model 520

The Model 520 includes a built-in, tunable preselector for off-air operation with a companion antenna. The unit also accepts a direct RF input sample from the transmitter. Features preset and adjustable peak flashers as well as loss-of-carrier and loss-of-audio alarms. (800) 733-0552

> fax (831) 458-0554 www.inovon.com Circle (206) on Free Info Card

SKD Kanopy: KD Majestic

🛎 JK Audio: Innkeeper 1

The Innkeeper 1 is designed to get audio in and out of analog telephone lines without the transmit/receive crosstalk common to analog hybrids. A built-in wired remote control that includes a DTMF keypad is featured. Other features include real screw

terminals for femote connections, a front-panel headphone jack and volume control, and switchable automatic answer.

(815) 786-2929; fax (815) 786-8502; info@jkaudio.com; www.jkaudio.com Circle (207) on Free Info Card

The software allows a computer to control the Digital Audio Engine without using any other control surface or to duplicate another control surface while occupying little space. For the user, the computer becomes the console, providing a space-efficient means of adding

expanded with the introduction of the Vmix Virtual Mixer Software for the PC.

another console control point in a studio, replacing a full console in a studio or controlling a console from remote locations. The software emulates a ROC-10, ROC-5 or Numix console control surface, depending on how the Audio

(800) 231-5870; (713) 782-7597 info@logitekaudio.com www.logitekaudio.com Circle (205) on Free Info Card



pounds and is constructed from an aluminum frame with fiber-reinforced DYNIDIOM fittings. Call letters and logos can be printed oversized on the canopy's side panel, top and rail curtains. The canopy's polyester tops are fireretardant, water-resistant and come in an array of colors. All units come with a free carry bag and stakes.

The 10'x10' KD Ma-

jestic weighs only 48

(800) 432-4435; fax (303) 650-5093 askme@kdkanopy.com; www.kdkanopy.com Circle (208) on Free Info Card

Sonifex: Courier software

Version 1.5 software for the Courier adds cut-and-paste editing capability and additional Mac support. The soft-

ware adds support for AIFF recordings and extends the editing capability with multiple-cut, multiple-mark cut-and-paste editing. Modem support is included to transfer audio over a telephone line. Frequently called numbers can be stored in memory.

+44 1933 650700; fax +44 1933 650726 sales@sonfiex.co.uk; www.sonifex.co.uk Circle (210) on Free Info Card

Gorman-Redlich: EAST

This feature-rich encoder/decoder offers a 25-pin printer port allowing an external printer to keep the EAS log, an auxiliary output through a coaxial BNC fitting to go directly into the FM exciter and a four-line, 40-character backlit LCD display for rapid interpretation of alert messages. Alert messages can be scrolled on a remote sign board, a computer screen or with a character generator on a video monitor. Other features include a 20-key keypad to construct alert messages header code, set modulation levels, or set input levels. The complete required weekly test, the end of the message code, sending a stored alert or sending a composed header can be done from the keypad on the unit or with a remote pushbutton in the on-air control room.

(740) 593-3150; fax (740) 592-3898 www.gorman-redlich.com

Circle (211) on Free Info Card

Engine has been programmed.

Connected to a server via Ethernet (10/ 100BT), the NCX200 decodes and plays a stereo audio stream. A bidirectional serial connection permits source selection, status and other communication with the server. This terminal is designed for a variety of networked audio applications, including audio-on-demand, permanent playback and public address in places. Programmed using the Digigram SDK, the NCX200 is the first in a new range of Digigram audio appliances. (703) 875-9100; fax (703) 875-9161

glassman@digigram.com www.digigram.com Circle (209) on Free Info Card

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Remotes are a necessary evil, but the Vector makes them more civilized by delivering

15 kHz two-way audio on a single dial-up phone line. No bulky RPU antennas to rig and no costly digital phone lines to install. And the Vector is so easy to use that even your non-technical staff can operate it.

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Email: info@comrex.com www.comrex.com

COMPA

O NAGRA: ARES-C

The ARES-C solid-state recorder/editor provides shock-resistant, continuous digital recording on PCMCIA cards, random access, nondestructive location editing and onboard ISDN transmission. No moving part tape trans-

ports, disk drives or other electromagnetic components. Features silent operation and low power consumption. Withstands humidity and temperature extremes (between -20°C and 60°C).

+41 21 732 01 01; fax +41 21 732 01 00; mail@nagra.com; www.nagra.com Circle (212) on Free Info Card

Satellite Export & Engineering: Patriot solid commercial antenna

The 4.5 meter solid commercial antenna is a C/Ku high-efficiency antenna ide-

al for digital compression. Features an all-aluminum reflector, 125 mph wind loading (survival), 16 draw die -formed petals to achieve .020" surface accuracy, a king post pedestal mount for superior steering and stability. Its petalized design provides high accuracy with low transportation costs.

(517) 629-5990; fax (517) 629-6690 sepatriot@voyager.net; www.sepatriot.com Circle (213) on Free Info Card

Dacific Research & Engineering: Airwave Digital

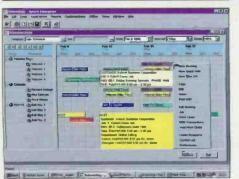
The Air-

wave Digital console, the digital complement to the AirWave, is available in two mainframe sizes of 12 or 20 input modules and is fully configurable. Automatic sample-rate conversion is standard on all digital inputs. Inputs can be reconfigured from analog to digital (and back) by changing one SIMS-mounted card per module. Three stereo program buses

are standard, each with a digital and an analog output. Also standard are two automatic telephone mix-minus (clean-feed) buses and logic control with a builtin machine interface. The console combines studio and control room monitoring with integrated talkback, and its five-mic pre-amp module delivers high performance using transformerless, balanced I/O pre-amps.

(760) 438-3911; fax (760) 438-9277; info@pre.com; www.pre.com Circle (214) on Free Info Card

S Xytech: Xytech FMS 2.2



Xytech FMS 2.2 is a fully integrated application for scheduling and management of facility resources. Runs on multiple databases and is Y2K compliant. Features click-and-drag scheduling and self-learning programmability. The reporting tool allows users to track usage and income of clients and resources as well as supplying tools such as project and client schedule reports. Interfaces with existing systems within organizations and can be exported to third-party accounting systems.

(818) 767-7400; fax (818) 768-7430 www.xytechstystems.com Circle (215) on Free Info Card

Ward-Beck Systems Ltd: R2K

The R2K features easy installation via the use of Phoenix pluggable connectors. Features a unique dual-redundancy power-supply

package based on the 8200 series rackmount frame, which includes provisions for using Ward-Beck D/A converters, A/D converters and distribution amplifiers in only 2RU of space.

(800) 771-2556; fax (416) 335-5202; wbsltd@istar.ca; www.wbsltd.com Circle (216) on Free Info Card



Comrex: Nexus

The Nexus stores up to 10 locations, including SPIDs, switch type and LDNs; all can be stored in nonvolatile memory. Two audio inputs are provided: mic/line on a three-pin XLR and a separate mini-jack tape input. There is a choice of audio

outputs: 4-inch phone jack and line-level on XLR. The output is an externally controllable mix of local program audio and studio return. An internal peak limiter keeps the audio from clipping in case of a sudden increase in level.

(800) 237-1776; fax (978) 635-0401; info@comrex.com; www.comrex.com Circle (217) on Free Info Card

Selar: CSA-1

composite input.

world. Working closely with major telecommunications companies, government agencies, the military, the broadcast industry, and large and small businesses, the company has manufactured and installed towers of every type, including an entire range of AM/FM, TV/CATV, radar, microwave, cellular, personal communication systems (PCS) and other applications.

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The company uses state-of-the-art equip-

ment and technology to manufacture and

erect thousands of towers around the

Tower structures

(800) 968-5601; fax (800) 882-3414 sales@swager.com; www.swager.com Circle (218) on Free Info Card

The CSA-1 features a VGA output to

drive an external CRT monitor, an RS-

232 port for connection to a PC, and

analog composite 150kHz inputs. Also

featured are analog, 24kHz left and

right inputs and an AES/EBU input

with a rate converter that accepts any sample rate from 24kHz to 56kHz. Other features inllude a 120dB dy-

namic range (adjustable), amplitude resolution to 0.1dB, and linear (per-

cent) and decibel scales. Frequency

can be displayed up to 150kHz on the

(610) 687-5550; fax (610) 687-2686

IFR Americas: 2398

The 2398 has a frequency range of 9kHz to 2.7GHz. A split-screen mode allows simultaneous viewing of two display functions. Full marker capabilities simplify signal troubleshooting. The standard RS-232 and optional GPIB allow remote control of the instrument, and

the parallel printer port supports many popular printers. (316) 522-4981; fax (316) 522-2328 info@ifrinternational.com; www.ifrinternational.com Circle (219) on Free Info Card

V-Soft: FMCONT



FMCONT is a new all-Windows channel-search program that combines LPFM and commercial spacings studies with contour-to-contour studies. Hot-spot screens allow parameter changes with a click of the mouse. Create instant allocation maps with another click of the mouse. Find new low-power FM drop-ins. This program is a complete FM frequency search package.

(800) 743-DOUG; fax (319) 266-9212 dvernier@v-soft.com www.v-soft.com Circle (221) on Free Info Card

sales@belar.com; www.belar.com Circle (342) on Free Info Card

Switchcraft: Q-G Twist

The Q-G Twist audio connector is an XLR connector with only two pieces that require user assembly. The front shell has a preloaded insert, and the back handle has a preloaded strain relief. The user needs to complete only three steps: sliding the cable through the handle/ strain relief; soldering the terminals/solder cups; and twisting the handle on.

(773) 792-2700; fax (773) 792-2129 sales@switchcraft.com www.switchcraft.com Circle (222) on Free Info Card

RCS Sound Software: SelectorNET

SelectorNET displays on your station's website the

song title and artist now playing. Works with most of the popular digital automation systems and allows stations to continuously post title, artist and the last 50 songs played. Easy to set up and maintain. SelectorNET also rotates graphic images such as station promos and advertising materials. Allows stations to control the look and feel of these images.

(914) 428-4600; fax (914) 428-6922 info@rcsworks.com; www.rcsworks.com

Circle (220) on Free Info Card

Logitek's Numix Console Control Surface Is New & Improved for '99

A new and updated Numix modular console control surface was introduced at NAB99. This updated Numix has been redesigned for greater space efficiency and expanded functionality when used with hard disk audio storage systems.

The modular design of the Numix had been modified for greater flexibility and space efficiency. The functions of the Meter Wedge have been moved to the Selector Wedge so that now there are only two type of wedges. The Fader Wedge has been updated to include six faders

instead of four allowing larger fader counts without increasing required space. Motorized faders are an option which allows software to physically change mix levels.

The alphanumeric display on the Fader Wedge has also been changed to a 200 x 640 LCD panel which is half of a VGA size screen. This will allow greater integration with hard disk audio storage systems which can make use of the larger display area. Even with the expanded display, the Numix retains its low



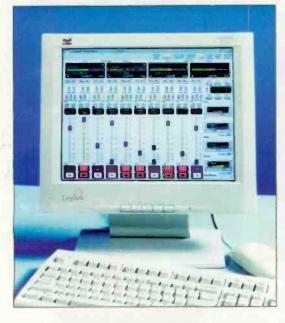
profile which contributes to open studio design.

ADVERTISEMENT

The ergonomic shape and unmatched flexibility of design and configuration make the improved Numix a top choice for today's most demanding broadcast studios.

For more information on the Numix control surface, contact Paul Anderson at 800-231-5870 or visit Logitek on the Internet at www.logitekaudio.com.

Circle 182 on Free Info Card



Vmix Virtual Mixer Software New for '99

The usefulness of the Logitek Audio Engine has been expanded with the introduction of Vmix Virtual Mixer Software for the PC. The Vmix software allows a computer to control the Logitek Digital Audio Engine without using any other control surface or to duplicate another control surface while occupying very little space. To the user, the computer becomes the console.

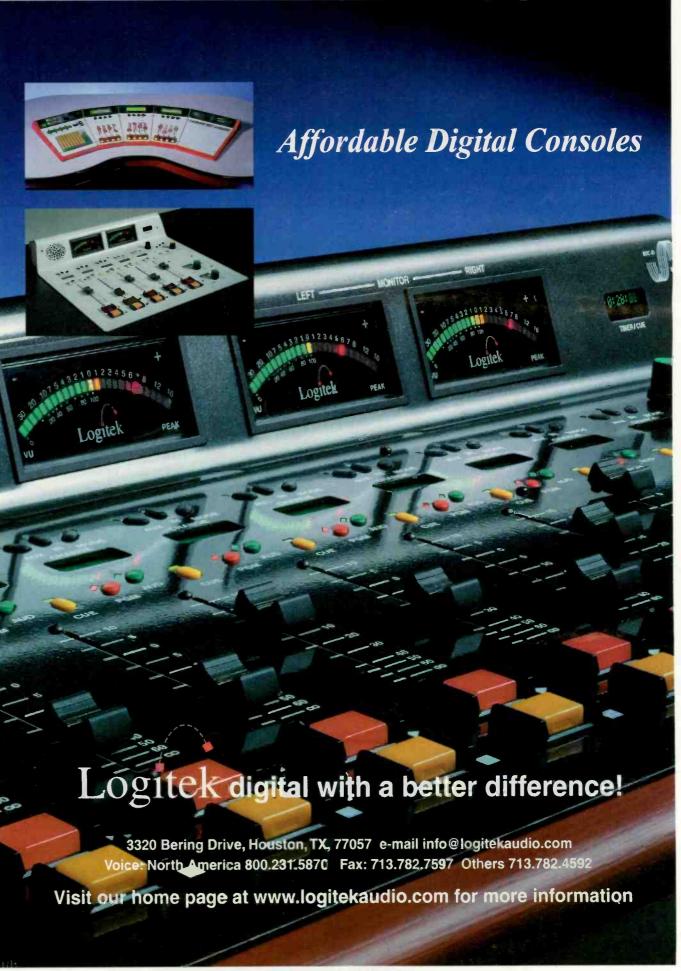
Making a video display become the "console" provides a very space efficient means of adding another console control point in a studio, replacing a full console in a studio or controlling a console from remote locations. Vmix software emulates either a ROC-10, ROC-5 or Numix console control surface depending on how the Audio Engine has been programmed.

Vmix provides all of the features of a hardware control surface. With a click of a mouse or the touch of a finger, the operator can turn channels on and off, change fader levels or change input routing, as well as controlling the EQ, pan and monitor systems.

Vmix operates on a Windows 9x or NT computer using either a CRT or flat panel XGA display. Vmix, used on a computer with a modem, can connect to a remote location and have full control of the Audio Engine. Vmix allows many new operating alternatives for the Logitek Audio Engine.

For more information on Vmix software, contact Paul Anderson at 800-231-5870 or visit Logitek on the Internet at www.logitekaudio.com.

Circle 183 on Free Info Card



Neúmann: True Systems Precision 8

The True Systems Precision 8 provides eight channels of transformerless mic pre-amps, two of which can be used as direct instrument inputs. Each channel also offers five-segment level indicators with a selectable peak-hold feature. A button on channels one and two allows them to be used as an MS pair for

added flexibility. Designed for use with today's modular digital multitrack units and hard-disk recording systems, the system can be connected to Tascam or Mackie digital products via a DB 25 multipin connector.

(860) 434-5220; fax (860) 434-3148 kwinkler@neumannusa.com; www.neumannusa.com Circle (223) on Free Info Card

Henry Engineering: **DigiStor-CD**

DigiStor-CD is a solid-state digital audio recorder/player for utility use. Stores up to 8min of monoaural audio with CDquality audio reproduction. Up to eight different tracks can be stored with random-access playback. Tracks can play once-only, continuously or in rotation and can be selectively erased and rere-



corded. A built-in phone coupler allows the unit to automatically answer a phone line and play a message to the caller. Extended play mode doubles recording time, with 7.5kHz bandwidth. Audio I/O is balanced, line level. Shipping this summer.

(626) 355-3656; fax (626) 355-0077; www.henryeng.com Circle (225) on Free Info Card

TC Electronic: DBMAX Mark II Version 2.02

The DBMAX Mark II Version 2.02 features 24-bit A/D and D/A converters among a comprehensive set of new hardware and software enhancements. The upgrade includes a dynamic stereo enhancer insert, the ability to handle analog I/O levels



up to +26dBu (requires field-hardware modification), new presets and level setups — the presets have the ability to call level setups if desired. A 24-bit bypass mode and selectable high-cut and low-cut 20th-order filters on the inputs are also added. Two units can now work in redundancy and in bilingual configuration.

(805) 373-1828; fax (805) 379-2648 tcus@tcelectronic.com; www.tcelectronic.com Circle (226) on Free Info Card

SWR: FMU

An excellent choice for most Class-C stations, the FMU provides superior

performance due to its wide VSWR

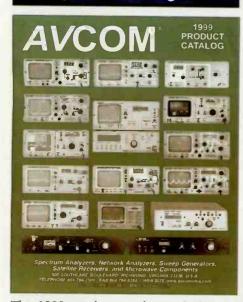
bandwidth. Its durable, corrosion-re-

sistant construction is fabricated from

heavy-wall copper and naval brass. All

joints are TIG welded. The entire antenna system is pressurized to the feed

Avcom of Virginia: 1999 product catalog



The 1999 product catalog includes the company's spectrum analyzers, network analyzers, sweep generators, satellite receivers and microwave components. (804) 794-2500; fax (804) 794-8284

www.avcomofva.com Circle (230) on Free Info Card.



Microsoft: MSAudio codec

Windows Media Technologies 4.0 provides developers with cutting-

edge tools for creating and publishing live and on-demand streaming media content. Provides built-in support for the key new features in the Windows Media Technologies platform. Of greatest significance for radio is support for the new Microsoft audio codec, MSAudio, which is optimized for both voice and music and provides high-quality sound at every data rate. The files download in half the time of MP3 files and can be stored in half the space. Results in FM-stereo quality over 28.8 modems.

(800) 227-4679; fax (425) 936-0251 saram@wagged.com; www.microsoft.com/windows/windowsmedia Circle (224) on Free Info Card

MusicamUSA: EditPro



The EditPro works directly on compressed MPEG Layer II and MPEG Layer III files, allowing users to edit compressed a file without uncompressing it prior to editing and recompressing it after editing. Eliminates the degradation created each time an audio file is recompressed. Operates by creating pointers to the original compressed file when each edit decision is made. When editing is completed, the original file is reconstructed with no cascading effects. Also supports BWF and raw MPEG formats. (732) 739-5600; fax (732) 739-1818

www.musicamusa.com Circle (227) on Free Info Card

point of each bay, and each bay is DC grounded, thus eliminating the need for a shorting stub. Custom vertical patterns are available with center-fed arrays that have an even number of bays. Electrical deicers are also available. SWR offers the original purchaser a two-year limited warranty on defects in material and workmanship.

(814) 472-5436; fax (814) 472-5552 homepage.third-wave.com/swrweb Circle (229) on Free Info Card

Davicom Technologies: FMPM-01

The FMPM-01 monitors the RF power level at the transmitter output and includes a demodulator to provide a sample of the audio signal.

> (800) 465-4343 fax (819) 370-4353 infodavicom@davicom.com www.davicom.com Circle (231) on Free Info Card

Propagation Systems Inc: FM broadcast antennas



This new line of FM broadcast antennas, called the "rototiller" because of its shape, is available in high-power and medium-power versions and configurations, and half and full wave spacing. The arrays are usually configured to 12 bays, with inputs of either 15/8 inches or 31/8 inches. The design comprises two series-fed bent dipole elements that form a space-phased circularly polarized antenna. Because of the series feed, the antenna is fed internally and may be fully pressurized, thus minimizing weather-related VSWR problems. The elements and associated feeds are made of heavy-duty marine brass.

(814) 472-5540 fax (814) 472-5676 angelfire.com/biz/psinc Circle (228) on Free Info Card

Broadcast Tools: MC-16 Mega-Coupler

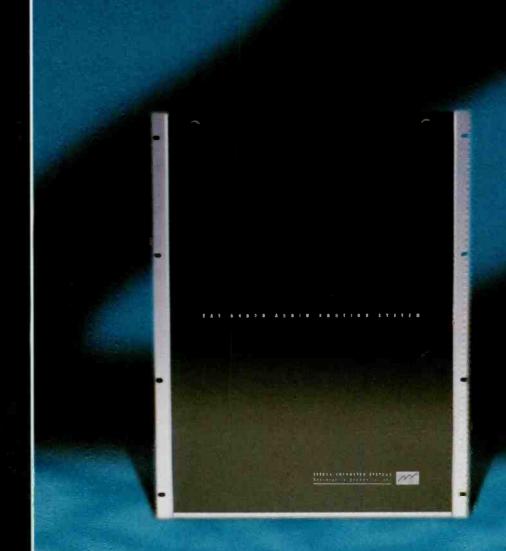
The MC-16 Mega-Coupler offers a DTMF tone sequence decoder, DTMF to RS-232 serial converter and telephone audio hybrid. Equipped with 14 spst and two 2 pdt relays, which may be programmed to respond from one to six DTMF tone sequences. The same DTMF tone decoding may be used to trigger serial strings to RS-232 devices. The unit also provides nonvolatile storage of up to 32-ASCII strings in 16 locations.

(360) 428-6099; fax (360) 428-6719 www.broadcasttools.com bti@broadcasttools.com Circle (232) on Free Info Card

SAS64000 AUDIO ROUTING SYSTEM

Elegant Analog

Instant Digital



256 X 256 LARGE • MONO/STEREO • WIDE VARIETY OF CONTROL PANELS • 118dB ANALOG DYNAMIC RANGE • DISTRIBUTED MULTI-PROCESSOR ARCHITECTURE



发展的发展

f the migration to digital is in your future, then this is the route to take. Introducing the large size, big performance analog router that also speaks fluent digital. A true hytrid that allows you to scale the number of analog and digital ports as needed, now and in the future. And even better, the SAS64000 creates a forward path to AES/EBU digital audio without creating analog obsolescence.

This means you can mix your analog and digital I/O in the same router frame. Go direct analog to analog, or digital to digital. Or mix it up with 24 bit conversion analog to digital and vice versa. Either way, this unique architecture sports flawless signal integrity and non-blocking flexibility.

Ard it's wonderfully simple, just plug in our new digital pert expander and that's it. Welcome to digital! —co-existing richly with analog in the same framework.

There's lots more to tell. Call us: 818 840 6749. Fax us: 8.8 840 6751. E-mail us: sales@sasaudio.com Check the Web site: sasaudio.com And of course, snail mail: 2112 North Glenoaks Blvd. Burbank, California 91504 USA





Solid Electronic Labs: Model DCP-1A



mitting maximum loudness, filter overshoot control and dynamic range. The design employs an active linear amplifier as the limiting device; its filter structure is configured in two separate sections, each with its own overshoot compensation circuit. Front-panel LED indicators allow direct indication of clipping level, input level and overshoot compensator threshold levels.

(610) 353-9449; fax (610) 356-8449

Circle (233) on Free Info Card

Scoop Reporter II

The Model DCP-1A

dynamic composite processor per-

forms the functions

of instantaneous

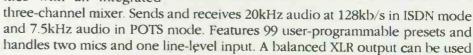
and composite

low-pass filtering

in a single struc-

ture, thereby per-

Scoop Reporter II is a portable audio codec that is compatible with POTS and ISDN lines and supports G.711, G.722, ISO/MPEG Layer II and J.52. Includes internal battery backup and multiple AC voltages. Combines POTS and ISDN facilities with an integrated



for studio producer IFB and mix-minus feeds from the studio or to feed a local PA.

(973) 659-0555 (973) 659-9555

www.aetausa.com Circle (234) on Free Info Card

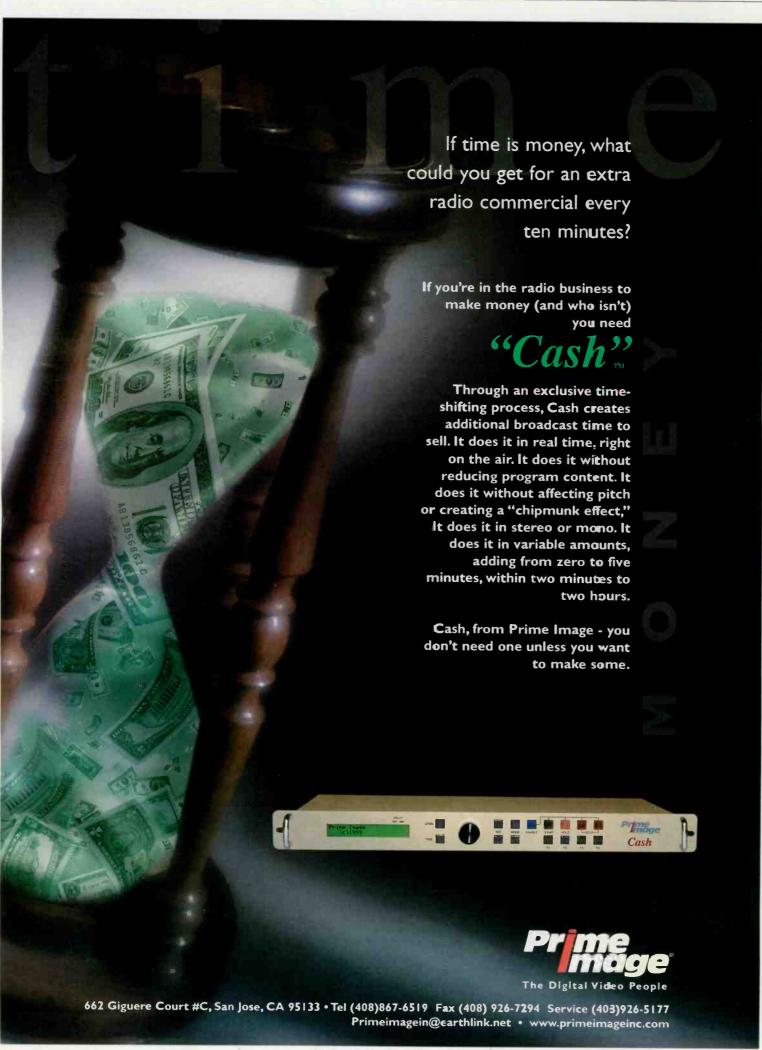
S Tannoy: Reveal Active



Reveal Active is a distinctive playback monitor that provides sonic excellence. A 1-inch soft-dome tweeter is matched with a 6½-inch long-throw bass unit, two 50W amplifiers and electronic crossover. Designed for budget conscious project studios and as a playback monitor for larger rooms.

(519) 745-1158 fax (519) 745-2364 mbertrand@tgina.com www.tannoy.com







hen you compare the all-digital Omnia.fm from Cutting Edge to other audio processors, is it apples to apples? Not quite. Unlike other audio processors, the Omnia is designed for today—and easily upgradable so you're always on top of the technology you'll need tomorrow.

Only the Omnia offers:

- A 48kHz sampling rate. The outdated 32kHz digital processors have a Nyquist rate that's too low for clean dynamics processing, resulting in aliasing distortion. But the Omnia solves this problem by combining 48kHz operation with 192kHz virtual-upsampling and an anti-aliasing final limiter.
- A digital stereo generator with a built-in composite clipper and low-pass filter for subcarrier protection and added loudness. Plus, the Omnia interfaces with D/CET™,

the world's first digital composite interface, for even more loudness and transparency.



Programs and presets stored on a PC Card for convenient storage, sharing and future upgrades.

Put it all together and there's just no comparison. Only the Omnia delivers crisp, clean highs. Tight, thundering bass that really rocks. Digital precision that's as smooth and fluid as analog. Awesome loudness, with rock-solid peak control and positively no grunge.

Then compare the Omnia's 60-day, risk-free, money-back guarantee* and a price that's below the other processors. So is it apples to apples? No way.

Omnia. The promise of digital...delivered!



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Audio Broadcast Group 3685 Roger B. Chaffee Blvd. Grand Rapids, MI 49548 Tel: +1 (800) 999-9281 Fax: +1 (616) 452-1652 e-mail: support@abg.com

Broadcast Sales 7313G Grove Road Frederick, MD 21704 Tel: +1 (800) 732-7665 Fax: +1 (301) 682-8377 e-mail: info@bradleybroadcast.com

Broadcast Supply Worldwide 7012 27th Street West Tacoma, WA 98466 Tel: +1 (800) 426-8434 Fax: +1 (800) 231-7055 e-mail: info@bswusa.com

Crouse-Kimzey Company P.O. Box 155999 Fort Worth, TX 76155 Tel: +1 (800) 433-2105 Fax: +1 (972) 623-2800 e-mail: sales@proaudio.com

Radio Communications Unlimited 5509 Barrington Ooltewah, TN 37363 Tel/Fax: + 1 (423) 396-3743

Caveco 1121 Bellamy Road, North Unit #10 Scarborough, ONT M1H 3B9 Tel: + 1 (416) 438-6230 Fax: + 1 (416) 438-1065 e-mail: bob@caveco.com

Marketing Marc Vallée 1067 Chemin St. Lambert St. Sauveur de Monts, QE JOR 1R1 Tel: + 1 (514) 227-1828 Fax: + 1 (514) 227-8394 e-mail: marc@vallee. com

All Electric 487 Carlbou Crescent Coquitlam, BC V3C 4X7 Tel: + 1 (604) 945-5651 Fax: + 1 (604) 945-5652 e-mail: allelec@dowco. com

S Forecast Consoles: Visual Radio series

The Visual Radio series is geared toward the next generation of radio environments. Choose from a completely custom design or use of preengineered modular components. The modular components are modified and customized around your equipment and space and to your specific finish requirements.



(800) 735-2070; fax (516) 253-0277 www.forecast-consoles.com

Maycom: Easycorder

The Easycorder is a secondgeneration, portable solid-state recorder with onboard graphic editing using both internal memory and removable PC cards. The unit is standard equipped with an internal memory facility that enables direct usability of the recorder. The battery pack lasts more than six hours in oper-

ating mode. The machine also operates using standard alkaline C batteries. Timeshift recording, which enables the machine to start recording before the record

button is actually pressed, is available. Also available is communication software that enables the user to transfer audio files back to the studio using standard ISDN lines

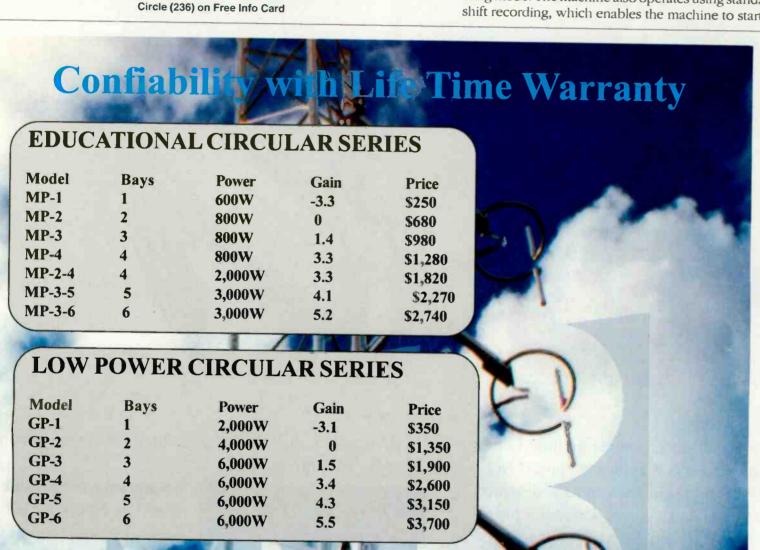
+31 481 377740 fax +31 481 3777380 miranda@maycom.nl www.maycom.nl Circle (237) on Free Info Card

AKG Acoustics: C 4000B



The C 4000B microphone's capsule has been carefully tuned to preserve the integrity of the source while offering mild complements in the high frequencies. The optimized transformerless output stage ensures the accuracy of low frequency and a nearly nonexistent self-noise. The large-diaphragm transducer provides excellent response, and the microphone features selectable polar patterns. A wide dynamic range accommodates every recording situation.

(615) 360-0499 (615) 360-0275 akgusa@harman.com www.akgacoustics.com Circle (238) on Free Info Card



MEDIUM POWER CIRCULAR SERIES

Model	Bays	Power	Gain	Price
SGP-1	1	4,000W	-3.3	\$690
SGP-2	2	8,000W	0	\$2,690
SGP-3	3	10,000W	1.4	\$3,595
SGP-4	4	10,000W	3.3	\$4,500
SGP-5	5	10,000W	4.1	\$5,300
SGP-6	6	10,000W	5.2	\$6,100

The antenna gain may vary w e freque please, make the request to p vide the

OMB also Manufactures: FM transmitters TV transmitters FM and TV Links TV antennas Medium power FM anter

Connectors



OMB America 3100 NW 72 Ave #112 Miami, Florida 33122 Phone: 305-477 0974 Fax: 305-4770611 Toll free: 888-OMB4USA

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ers up to 20 Rew

INNOVATIONS.



It's not just in our name—it's what we are about.

Prophet Systems Innovations
Together, let's make great radio!

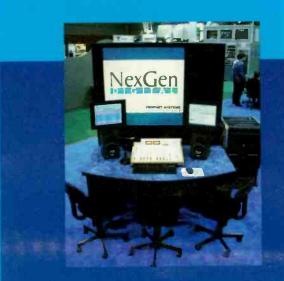


We started this company with a single goal—to be the best! My staff likes to joke about my "speech". I stress that we can be the system of choice if we SIMPLY provide the best software, the best hardware, the best support, the best sales service, the best training, the best

installation, etc. Simple strategy? But, my message gets through loud and clear—I don't settle for average!

From this mandate and the already powerful AudioWizard software comes NexGen Digital™. More than an upgrade, NexGen takes a decade of experience in digital automation and offers you the virtual radio system to take you into the next century.

-Kevin Lockhart, PSi President



NexGen Digital features:

- Compressed or non-compressed audio
- Real-time status of up to 128 local network workstations
- A single PC running a station
- Redundancy using multiple file servers
- Individual user preference records
- Customized default configuration
- High speed digital audio extraction
- Timesaving drag and drop capabilities
- Pot status window
- Voice-track recording concurrent with programming
- Instant and seamless mode and shift changes





 Sales:
 (800) 658-4403

 Support:
 (800) 658-4396

 E-Mail:
 sales@prophetsys.com

 Web:
 www.prophetsys.com



The DASW 2x1 AES3. housed in a 1RU assembly, serves sev-

eral functions in an AES digital audio path. The DASW selects one of two compatible AES3 input signals. The unit's design allows it to handle balanced



AES3 or unbalanced AES3-ID input and output signals. Possible applications include feeding two exciters simultaneously with the same digital signal or acting as a source selector for up to four digital devices, such as R-DAT or CD recorders.

(800) 622-0022; (513) 459-3890 Circle (239) on Free Info Card

3dB: DELTA range

The DELTA range of products includes the DELTA420, a unique product that features a four-input, 20-output distribution amplifier with the outputs grouped in banks of five outputs. The addition of a switching matrix offers the user the chance to route inputs to either or all of the outputs, thus enabling them to

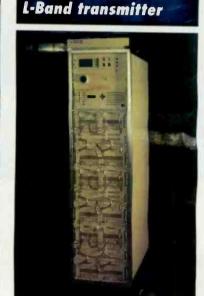
derive mono and stereo feeds of the same stereo in the one unit. The DELTA44 and DELTA4 are, respectively, dual and single stereo unbalanced to balanced converters. The DELTA55 is a bidirectional stereo balancing unit for domestic or semipro equipment that requires a record feed. All of the units in the range have outputs with adjustable gain over a range of 30dB, and both inputs and outputs can be either

balanced or unbalanced. All come in three standard sizes. Mounting plates are available.

01797 225400 fax 01797 225353 3db@broadcast.net



Sitelco: DAB 1kW



The new DAB 1kW L-Band transmitter packs 1kW of power and will broadcast radio and data signals in the L-band at 1.5GHz. The transmitter is configured as a 2 + 1 system, with two operating transmitters and one in reserve that automatically switches on if the others fail. Each transmitter is capable of broadcasting up to five program channels in addition to data services as an added program feature.

(303) 464-8000 fax (303) 464-8770 itelco.sales@krenet.it www.itelco-usa.com Circle (241) on Free Info Card

⊃ Daiet: Daiet 5

The Dalet 5 addresses the complete range of tasks performed in radio: live or automated broadcasting, program scheduling, production, news and traffic management. Dalet's new Inter-Web for group connectivity, TeamNews for all newsroom requirements, and TeamRadio for group-wide traffic management will be showcased.

(212) 825-3322 fax (212) 825-0182 sales@dalet.com www.dalet.com Circle (242) on Free Info Card



NEW VLZ PRO". THE FIRST COMPACT MIXERS WITH ESOTERIC MIC PREAMP SPECS AND SOUND QUALITY.

ou won't find any other mixer manufacturer admitting this dirty little truth: For years, expensive outboard mic preamplifiers have yielded better sound than the preamps in any size mixing console including "status mega-consoles." In fact, if you happen to have numerous extra thousands in cash lying around, we urge you buy an esoteric mic preamp or two or three right now.

But if your equipment budget is slightly more down-to-earth, we'd like you to enjoy the benefits of the most extensive analog engineering project in Mackie's history: The new XDR™ Extended Dynamic Range mic preamplifier.

Now for the first time, you can realize the full potential of the world's finest condenser microphones with an affordable compact mixer: Room ambiance so detailed you can practically hear the carpet pattern...high frequency resolution that defines cymbals, triangles and bells down to the molecular level... midrange that's as gentle and fluid as a warm bath...and tight, authoritative bass with intoxicatingly rich harmonic texture. In short, you can now achieve an aural panorama that's breathtakingly realistic, excitingly vivid and truly 3-dimensional.

You probably think we're laying it on a little thick—until you hear the XDR™ mic preamplifier in person. It really does have...

 The lowest harmonic distortion of any compact mixer mic preamp in existence (for example, ten times less THD than our previous VLZ™ series).

- · Lower Equivalent Input Noise in the critical +20-+30dB operating range than most \$2000 preamps.
- Over 130dB of dynamic range to handle hot 24-bit/196kHz outputs from digital audio workstations.
- Astonishing bandwidth without RFI side effects. Not only are XDR™ mic

preamps flat within 1/10th of a dB across the bandwidth of any known microphone but they're only 3dB down at 1Hz and 192kHz!

Warm, natural sound 0.0007% THD 130dB dynamic range to handle 24-bit/196k digital input sources Lowest E.I.N. at real world gain settings Impedance independent

bandwidth The best RFI rejection of any compact mixers in the world

Near DC-to-light

 Controlled Impedance Interface. Use the XDR™ mic preamp with mic/ cable impedance

combinations anywhere from 50 to 600 ohms and get the same ruler-flat frequency response.

There are also XDR™ benefits you won't hear:

- The best RFI (radio frequency interference) rejection of any compact mixer... without attenuating high frequency response.
- Comprehensive protection against "hot patching" and short circuit damage - a

critical feature even some high-end mic preamps lack.

The mixers are pretty cool, too. XDR™mic preamps are the latest major enhancement to our industry-standard CR1604, MS1402 and MS1202. For more information, call toll-free, log onto our web site or visit your nearest Mackie Dealer and hear the new VLZ™PRO Series. Think of them as \$2000 mic preamps with superb mixers attached.

800/265-2940





MADE IN WOODINVILLE WASHINGTON, USA BY **GENUINE MACKBIDS**

MS1402-VLZ PRO 6 XDR" mic preamps

14x2 • 4 stereo line mic/line inputs • extra ALT 3-4 stereo bus



CR1604-VLZ PRO

6 XDR™ micpreamps mic line inputs 4 sub groups rotatable I/O pod



MS1202-VLZ PRO

nouts • 4 mono mic/line inputs • extra ALT 3-4 stereo bus

CYNIC'S CORNER. Did we just slap a new buzzword on our "old" VLZ mixers? Emphatically NO! We spent two years and a quarter of a million dollars to produce the first no-compromise mixer microphone preamplifier design. XDR™ is a quantum leap ahead of anything but the most expensive outboard mic preamps. Plug a high-quality condenser mic into a VLZ Pro compact mixer and you'll hear the difference. Run a sideby-side comparison with a \$1000-perchannel esoteric mic preamp and you'll be blown away.

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Mackie Designs Inc.

www.mackie.com

Geode Electronics: RBDS

The capabilities of RBDS have been available for several years, but Geode has introduced a way to make better

use of the technology. Many stations already have RBDS encoders, and their automation or music scheduling software can provide current programming information. Putting these ele-

ments together is part of what Geode is doing. Besides the basic RBDS format, Geode is working with Auto PC manufacturers to provide enhanced display features to the RBDS datastream. Different fonts and color can be used instead of basic scrolling text. The company's system is fully compatible with the existing RBDS standard. Also under

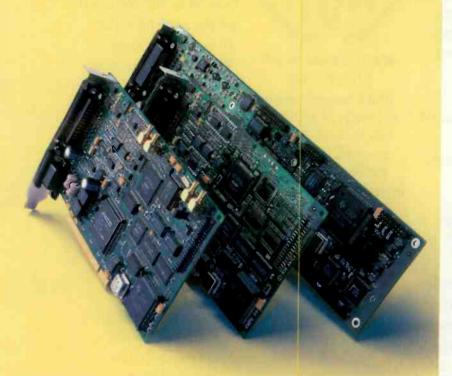
development are portable radios with flip-up displays

to add the Color Radio technology to receivers

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When your work relies on play... rely on Antex.





Introducing the Broadcaster™ series from Antex.

With up to 4 inputs and 8 outputs all playing on top of each other, you have near-unlimited options for broadcast creativity. Record, edit, produce spots, take calls, do program feeds-all while playing back as many as six stereo programs on the alr. All with one PCI card. For the highest quality, purest 20-bit sound ever to come out of an Intel or Alpha based PC.

Best of all, you have the confidence of choosing an ISO-9001 rated industry leader that's been defining the standard for PC digital audio for over a dozen years. When you're choosing Antex, you're choosing the best.

Find out how Antex is setting new standards for broadcasters. Visit us at www.antex.com or call us toll-free at 1.800.338.4231.

Model LX-24M

- 20 bit A/D and D/A
- MPEG layer I/II, 8 or 16
- PCI bus, WIN 98/NT
- · 96dB dynamic range, 0.003% THD+N
- 2 inputs/4 outputs/balanced
- 3 virtual stereo devices

bit PCM

- · 20 bit A/D and D/A converters MPEG layer I/II, 8 or 16 bit
- PCI bus, WIN 98/NT

PCM

Model BX-44

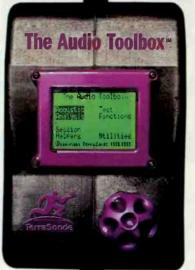
- 96dB dynamic range, 0.003% THD+N
- · 4 inputs/4 outputs/balanced
- 3 virtual stereo devices
- · AES/EBU/SPDIF digital I/O
- MIDI interface Video sync/time code

Model BX-12

- · 20 bit A/D and D/A converters
- MPEG layer I/II, 8 or 16 bit PCM
- PCI bus, WIN 98/NT
- 94dB dynamic range, 0.003% THD+N
- 4 inputs/8 outputs/balanced
- · 6 virtual stereo devices
- . AES/EBU/SPDIF digital I/O · Independent sample clocks
- Convertible from analog to full
- digital I/O

· Optional, opto-isolated digital I/O

TerraSonde: Audio Toolbox



The Audio Toolbox provides a com-

prehensive set of tools in one package. Includes a sound-pres-

sure level computer, a reverb

decay time computer, an energy time graph, a polarity tester and a real-time analyzer. Test functions include a signal generator, a stereo level meter/frequency counter, computation of S/N, a 1/3- and 1/12-octave frequency-response sweep to measure equipment response, and a sample scope. Includes a monitor amp for monitor and guitar modes; a cable tester for XLR, 1/4-inch, and RCA cables; a phantom power checker; a battery checker; and the game Ping.

(303) 545-5848; fax (303) 545-6066 sales@terrasonde.com; www.terrasonde.com Circle (244) on Free Info Card

Neutrik USA: Minirator MR1

The Minirator MR1 provides a comprehensive set of audio test signals as required in broadcast audio environments. The instrument provides sinusoidal signals over the entire audio band, from 20Hz to 20kHz at levels as low as -76dBu up to +6dBu, including sweep capabilities at various speeds. Alternative level units are dBV and volts. A dedicated polarity test signal enables the user to unveil devices with inverse polarity. The white and pink noise signals with low crest factors and high-repetition rates act as an ideal source for room acoustic measurements, frequency response equalizations and signal evaluation.



CartWorks: Audio formats



The new CartWorks WAV/MPEG line supports the industry-standard Microsoft WAVE format so audio files from home

computers can be used without the need for conversion. MPEG Layer II and Layer III digital audio compression have been added. Features include an in-context voice tracker, multiple audio editor support, an easy audition tool, RAID hard-drive mirroring and touchscreen operation.

(800) 795-7234 fax (601) 853-9976

bes@ucmail.com; www.cartworks.com Circle (246) on Free Info Card

Denon: DCM-5000

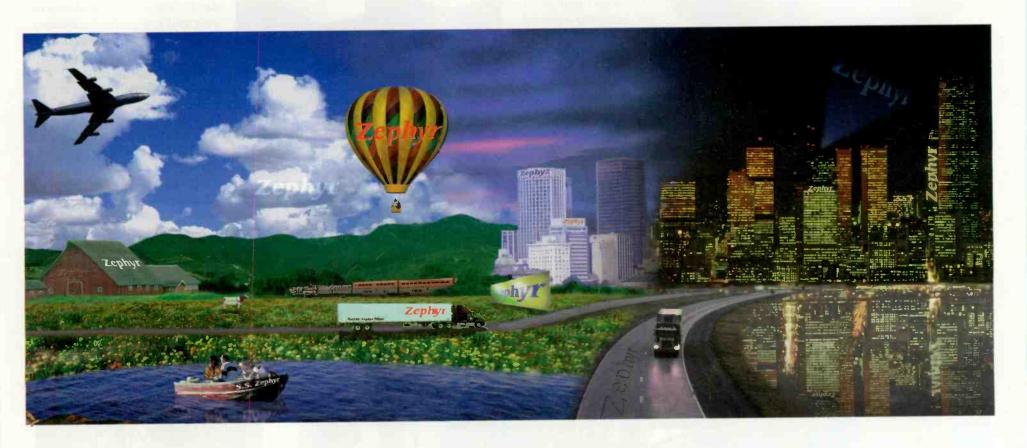
The DCM-5000 can be used as a stand-alone unit or as the master controller for a CD changing system of up to 600 total discs when a maximum of five DCM-5001 slave units are daisy-chained to it. The unit is equipped with two CD drives for greater operating flexibility. While a CD



is being played in one drive, another CD can be loaded in the other drive and held in standby mode. This permits a seamless transition from one musical selection to the next (in Single-Zone mode). Simultaneous playback from both drives is also possible (in Multi-Zone mode), since the unit is equipped with two sets of RCA analog audio outputs. Two coaxial digital outputs are also offered for maximum compatibility with a wide range of equipment.

(973) 396-0810; fax (973) 396-7459; www.del.denon.com Circle (247) on Free Info Card

ONE LOVES TO TRAVEL, THE OTHER PREFERS TO STAY HOME



ZEPHYR IS EVERYWHERE.

The irrepressible Telos Zephyr has earned a hard and fast place in the hearts of broadcasters, engineers, and recording professionals around the world. Why? With its integrated ISDN terminal adapter, MPEG Layer 5 and Layer 2 compression technology, optional AES/EBU digital 1/0, and an intuitive user interface, the Zephyr was designed by Telos specifically for broadcast audio appli-



cations over ISDN. It's the ideal solution for remote mixing and broadcasts, ad boc networks, recording sessions, voiceovers, distribution of commercials, backup to satellite and microwave links, and nearly any other application you can imagine. How could anyone function in today's world without one?

ZEPHYREXPRESS IS EVERYWHERE ELSE.



With its ground-breaking design and capabilities, the amazing new ZephyrExpress takes Zephyr's industry-leading operation wherever you need to go, and combines a full-featured ISDN codec and three digitally-controlled stereo mixers in a single, road-worthy chassis. With an unprecedented, easy-to-use interface and specs that blow away most studio codecs, the ZephyrExpress is like nothing you've ever experienced. Now you can hit the road without having to leave your Zephyr behind.



The Best Way to Hear from There™





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5 HHB: Genex GX8500

The Genex GX8500 is equipped to record in linear and nonlinear modes and is designed for multichannel

recording and mastering applications in which the best possible sound quality is required. Records in AES/EBU, SPDIF, SDIF 2 and DSD (Direct Stream Digital) formats, making it compatible with the new Super Audio CD standard. Options include internal A/D, D/A converters that enable recording up to 24 bit/96kHz.

+44 181-962-5000; fax +44 181-962-5050 sales@hhb.co.uk; www.hhb.co.uk Circle (248) on Free Info Card

Advanced Furniture Systems: **AFS** series



The AFS series of modular studio furniture ranges from

small workstations to full-blown studios. If you plan to remodel your studio in the future, the AFS series offers the option of adding or subtracting cabinets as new situations arise. The AFS series incorporates equipment racks and access doors as standard features. Access doors fit into and cover the equipment rack and can be used as a filler panel where the equipment does not completely fill the rack. Other standard features

include a clean design with no visible screws or bolts, a single-level work surface, standard 31-inch deep by 42-inch wide console table, wood trim to protect all outside edges and finished cabinet interiors.

(970) 663-4123 fax (970) 663-6338 afs@mail.omn.com www.omn.com/afs

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Belden Wire & Cable Company: Brilliance



Brilliance audio snake cables feature enhanced NEC ratings features the 1408R Series CMR-rated audio snakes (UL 1666). For installations that require penetrating multiple floors, this riser-rated cable is economical, eliminating the need for metal raceways, fireproof shafts and firestops.

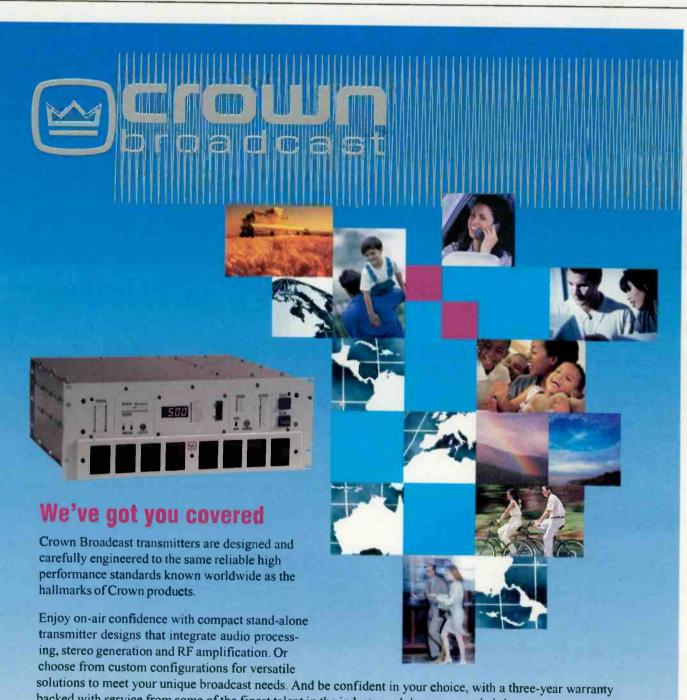
(765) 983-5200; fax (765) 983-5294 www.belden.com

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Prophet Systems: **NexGen Digital**

NexGen Digital is based on the features of the Audio Wizard and uses the multitasking capabilities of Windows for seamless sharing of audio and data between stations and features dragand-drop capabilities as well as automatic copying of programming materials. Features real-time status of up to 128 local network workstations and redundancy using multiple file servers. A single PC runs a station, and the system runs uncompressed linear audio or MPEG compressed audio.

> (800) 658-4403 (308) 284-4181 sales@prophetsystems.com Circle (251) on Free Info Card



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www.crownbroadcast.com





FCC APPROVES SRPT-40E/SR-10E

MARTI is proud to announce FCC approval for the Frequency Agile VHF RPU Transmitter, the SRPT-40E and its companion receiver, the SR-10E. This combination adds another tool for making sure that remotes get through in today's crowded spectrum. This dynamic duo was introduced to the export market last year and produces more power with less weight

SRPT-40E

than our non frequency agile models. Frequency Selection is at the push of a button.

FEATURES:

- Frequency agile over specified band in 12.5 kHz steps
- Front panel selection of channels
- Sixteen factory programmed channels
- LCD display indicates channel selection
- Remote channel selection
- · Built-in monitor speaker with front panel head-phone jack
- and level control Subaudible tone/encoder/ decoder
- Double-balanced mixers
- All controls on the front panel
- Available in 140-200, 200-300, and 300-400 MHz bands.
- 110 or 220 VAC Swithcable.

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SR-10E



STL-MAX

MARTI has done it again. Here is the new Export STL with 30 Watts of continuous duty power. We call it "THE MAX". When teamed up with the R-10 receiver, this system meets worldwide needs for higher transmission distances. The MAX is available in frequency bands from 140 MHz to

STL-MAX Applications

- · Intercity relay for linking two or more broadcast facilities.
- Multi-relay systems for radio network distribution
- Communications link between satellite earth station and broadcast facilities
- STL for FM stereo broadcast (dual system)
- STL for AM stereo broadcast (dual system)
- STL for FM mono or AM broadcast

Circle 186 on Free Info Card



The **GX-500**

MARTI has updated the GX-440 Remote Mixer and will be shipping the GX-500 later this year. We have added an analog cellphone adapter and power cord that will enable the GX-500 to utilize popular models of analog *cellphones for remote broadcasts.

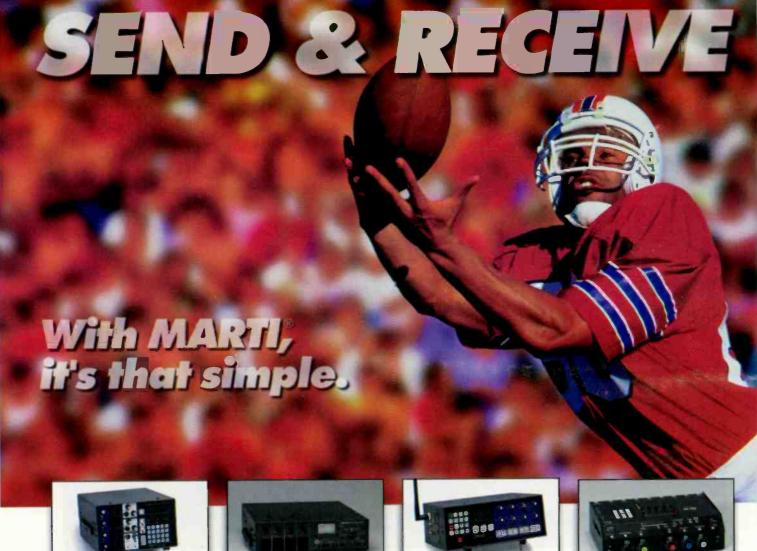
*Contact Factory for Supported phones

GX-500 features:

- 4 Mic Channels and 2 aux. Inputs
- 4 headphone jacks
- Peak limiter
- Squelch/Mute Switch
- Tone/pulse dialing and electronic ringer
- Rechargeable batteries for up to 10 hours of use
- Second phone line capability
- Aux. Output line or mic level
- External AC supply
- · Plastic carrying case included

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For Details, Contact: Jim Godfrey, President jimgodf@flash_net



SMARTI® SMARTI POTS Codec 1 and 4 audio channel models available

ith Fall remote season around the corner, it's time to prepare your game plan to increase income. Don't rely on worn out gear that could leave you speechless on the sidelines. MARTI® has



SRPT-40 Frequency agile remote transmitter VHF and UHF frequency agile models available

a remote package for every station's needs - RPU, Cellular, POTS, VHF/UHF Frequency Agile, and more. And MARTI tackles the competition when it comes to reliability, high performance and value.



Cellcast RBS-400 Cellular remote broadcast studio



GX-500 Remote mixer Available in August

Contact MARTI or your favorite MARTI distributor today and get in on the savings in time for Fall sports remotes. Check out our web site at www.marti.bdcast.com for a complete listing of products and MARTI distributors, or call MARTI at 817-645-9163.



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Prime Image: Cash

Cash allows stations to create an additional 60sec for every 10min of programming. The system does so undetectably, without altering pitch or creating digital artifacts. It works live, in real time, on the air. The

amount of time Cash creates varies from 0min to 4min and can be added to any period

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anal (1 to an be added to any period of time within the range of 2min and 2 hours. The XLR

change the amount and the rate at any time. (408) 867-6519 fax (408) 926-7294

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primimageine

Euphonix: AD-26+2

The AD-26+2 features 26 balanced analog inputs on XLR connectors (channels 1 to 24, A1, A2), four analog input-level trims (1 to 8, 9 to 16, 17 to 24,

A1, A2) for 0dBFS from +27dBu to

+6dBu in 3dB steps, stereo AES/EBU input on the XLR connector with parallel S/PDIF input on the RCA jack (channels D1, D2), 24 channels EAS/EBU out on 12 XLR and 3 DB-25 connectors (Yamaha 02R, Sony PCM-800 pinout), two channels AES/EBU out on XLR with

parallel S/PDIF out on the RCA jack (channels D1, D2), two balanced analog outputs on XLR connectors (channels A1, A2), analog output level trim (A1, A2) for 0dBFS from +27dBu to +6dBu in 3dB steps.

(818) 766-1666; fax (818) 766-3401 blaze@euphonix.com; www.euphonix.com Circle (253) on Free Info Card



Circle (162) on Free Info Card



Circle (163) on Free Info Card

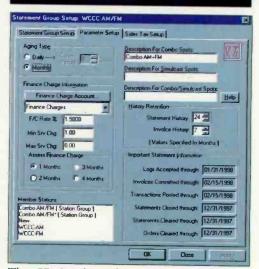
Computer Concepts Corp.: Maestro 2.5



Maestro 2.5, the latest version of the Windows NT-based digital audio hard-disk storage system, provides multiple record/play audio channels, an easy-to-read display with on-screen countdown, and full integration of all digital and audio operations. Enhanced graphics and user-friendly options are features in this version.

(800) 255-6350 fax (913) 541-0169 info@ccc-dcs.com; www.ccc-dcs.com Circle (254) on Free Info Card

MediaFORM: CD-3704



The CD-3704 is a four-drive, stand-alone system that delivers one-button operation and unattended duplication of up to 100 CD-Rs. Features include separate accept and reject bins; prescan, which scans the master for errors prior to burning; and a Smart Controller, which automatically identifies complex formats like ISO, Hybrid, Mix Mode, HFS and Red Book CD-Audio. (610) 458-9200; fax (610) 458-9554

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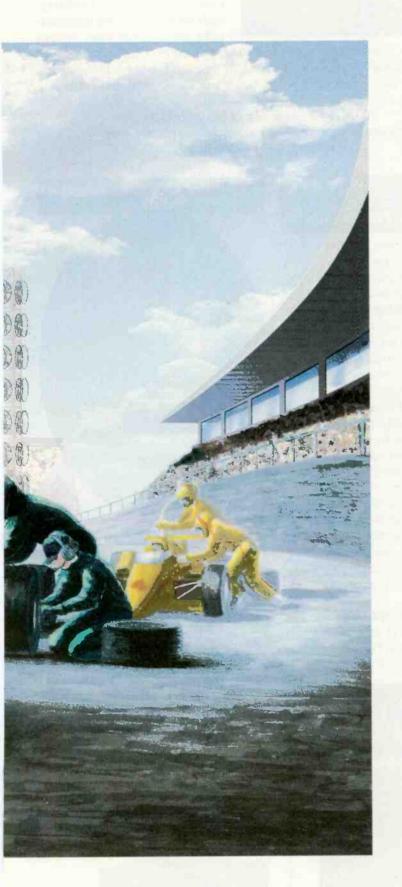
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Harris is in this race to provide you with the tools that it takes to cross the finish line first. The Broadcast Systems Division has the highest point standing in the industry when is comes to providing customers with complete systems at the velocity they need.

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🧢 Sennheiser: SK3063

The SK3063 is a miniature, tunable bodypack transmitter that provides 50mW of output power. Sixteen selectable frequen-

cies in a 24MHz micro range operate within the UHF macro range of 450MHz to 960MHz. The micro range can be retuned within the bounds of the macro range to ensure continuous operation regardless of DTV frequency allocations.

(860) 434-9190; fax (860) 434-1759; www.sennheiserusa.com

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DIGITAL RECORDER, EDITOR & CODEC for the price of a CODEC, alone!

For what you might expect to pay for a Broadcast quality CODEC, you could be working with the added features of the C-PP, studio model of

The C-series from NAGRA

For gathering news reports, live remotes or voice overs, the C-PP makes transmission of broadcast quality audio in MPEG II digital format via ISDN lines simple and affordable. Combine this with the ability to record to indestructible Flash Ram and configure these recordings with an EDL style virtual editor to create a complete package for Broadcast. Dual PCMCIA cards allow continuous recording time. A directory is kept on each card with the details of every "take" for ease of identification. Built in mic preamps with ALC, dual AUX inputs and DSP mixing capability permit live feeds to be mixed with recorded material for remote broadcasts. The Auto Answer feature allows the C-PP to send or receive automatically when called, for gathering of news reports. All this flexibility is centered around an easy to use menu of selectable functions. Check out our website at www.nagra.com for all the details on the C-series.



Circle (173) on Free Info Card

⇒ Telos: Series 2101



The Series 2101 is the first

large-scale multiline talk-show system that inter-

faces directly with digital phone lines. Its open architecture allows broadcasters to reassign numbers to different studios, thus maximizing the unit's flexibility, with multiple lines feeding multiple studios. The basic system

handles up to 24 lines and can be expanded to accommodate up to 96 lines. The system connects to the phone company's network entirely in the digital domain. This allows faster call setup, better call supervision and extremely high-quality audio.

(216) 241-7225; fax (216) 241-4103 info@telos-systems.com; www.telos-systems.com Circle (257) on Free Info Card

S Aircorp: Model 500 Pro Announcer

This microphone processor was designed for application in the studio or on remote. Its input levels can be remotely controlled to correct levels between announcers. Once levels are correct, the equalization can easily be established with no further adjustment required. The unique compressor/expander combination reduces room and equipment noise while providing level control and increased loudness for the announcer. Other features include front panel selection of input level in four ranges, +4dB to -50dB. three section variable boosts and out equalization designed for easy setup with without increasing room rumble and system hiss, and symmetry correction providing more talk power with less compression.

> (972) 304-0455 fax (972) 304-0550 Circle (258) on Free Info Card

Orban: Audicy



The Audicy digital audio workstation has a dedicated analog-feel hardware controller, and the visual interface tells you all you need to know at a glance. Fully loaded with OPTIMOD compression, Lexicon reverb and Time-Fit time compression. A networking option lets you link multiple units to each other, to central servers or to on-air systems. The SMPTE time-code option integrates Audicy VX into video post studios. Supports TCP/IP and Novell networking.

(510) 351-3500; fax (510) 351-0500 custserv@orban.com www.orban.com Circle (259) on Free Info Card

Leitch: Integrator



The Integrator integrates all digital and analog signal formats and allows flexible, soft-matrix partitioning of hardware matrices. This allows the user to integrate the router into present matrices. The unit is easily reconfigurable for later matrices. Multiple signal formats can be integrated into the same frame with deterministic, fieldaccurate switching.

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The Smart Dubber **Automatic Music** dubbing from CD to hard drive



Digital Program Director Music Scheduling



The Spider Internet **Distribution System**

adcast Systems Systems for Radio

When it comes to digital audio, digital automation, computerized logging and billing, computerized traffic, computerized music scheduling and much more, look to SMARTS for all the answers. We have innovative software that doesn't just skim the surface, but gets deep into the operational aspects of all radio stations. At WOR in New York, Smartcasters not only automate the local New York City signal, but automate the WOR network as well. In Glasgow, KY the Spider system effortlessly moves production audio and logging information across the internet, with no human intervention needed.

SMARTS has developed a unique system that allows live operators to use Windows 95/98/NT screens. Announcers enjoy the ease of Windows operation and excellent graphic interfaces without the reliability problems usually found in Windows systems. Our passive backplane rack mounted systems are built by SMARTS to rigid, industrial specifications. The result is reliable equipment that stands up to the rigors of broadcast use.

Now SMARTS has added the new Smarts Dub, an auto dubbing system that automatically extracts audio from CDs and records it on the hard drive. This saves hours of recording time for your staff.

We have answers for you. Call, fax or e-mail today to find out more.





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Several models of AES3 distribution amps are available in

single and dual input configurations. The units detect sample rates from 27kHz to 96kHz, display standard rates, and generate low jitter outputs to drive up to 12 XLR or 24 BNC lines. They also feature adjustable input cable equalization with status and error readouts.

(215) 443-0330 fax (215) 443-0394 les@atiguys.com www.atiguys.com Circle (261) on Free Info Card

Discmatic: MDX7000 and MDX3000

The MDX7000 and MDX3000 tower module multidrive duplicators, featuring seven and three CD-R drives respectively, can produce up to 21 full CDs per hour. For quicker duplication, the newly designed SCSI bus allows a faster data transfer rate and copying of up to seven discs simultaneously.

Both units can copy directly from CD to CD rather than working through the hard drive. They can also save the information to the hard drive during copying, combining two steps into one. The core logic for both units is stored on an advanced flash ROM, and the internal firmware can be upgraded via a firmware CD or by downloading the firmware file from the company's website.

(800) 422-6707; fax (516) 894-9700; info@discmatic.com; www.discmatic.com Circle (262) on Free Info Card







Circle (177) on Free Info Card

Mackie Designs: CFX12

The CFX12 is a low-noise, high-headroom mic/line mixer that features 32-bit digital effects and EMAC effects. Every channel has four-band active EQ, two aux sends with a pre/post switch, internal and external effects-level sends, constant loudness pan control, bus assign switches and a PFL Solo switch. Also included are a nine-band stereo program equalizer, separate tape inputs and outputs and Mackie's discrete mic pre-amps.

(425) 487-4333; (425) 487-4337 Mackoids@aol.com www.mackie.com Circle (263) on Free Info Card

Broadcast Electronics: FM-10S 10kW transmitter



The FM-10S 10kW transmitter features an extensive redundancy and protection system that will keep the signal on the air even in the most extreme conditions. An available standby exciter, IPA and power supply can give you full power standby capability without the cost of an additional standby transmitter. Large, removable front and rear panels provide access to every major assembly for fast and easy repair.

(217) 224-9600 fax (217) 224-9625 kwinking@bdcast.com www.bdcast.com Circle (264) on Free Info Card







Neumann/USA to Distribute True Systems Precision 8 Microphone Preamplifier

Old Lyme, Connecticut – Neumann/USA has announced that it will begin U.S. distribution of the True Systems Precision 8 Microphone preamplifier.

"Tis product is a perfect compliment with the Neumann line," explains Karl Winkler, Neumann product manager. "It boasts rock-solid construction, a very transparent sound quality and extremely low noise. It also features an excellent transient response and a wide dynamic range. In short, it is of the quality of Neumann products, making it an ideal fit with our line."

The True Systems Precision 8 provides eight channels of transformerless mic pre-amps, two of which can be used as direct instrument inputs. In addition, each channel offers 5-segment level indicators with a selectable peak-hold feature. A button on channels one and two allows them to be used as an MS pair for added flexibility. Designed for use with today's modular digital multitrack units and hard disk recording systems, the Precision 8 can easily be connected to TASCAM or Mackie digital products via a DB 25 multi-pin connector.

The Precision 8 designed and built by Sunrise Engineering, a design and build manufacturer located in Tucson, Arizona. Although Sunrise has designed several high-end professional products for other manufacturers, this is the first product that they have debuted under their own name. "We're looking forward to the opportunity to work with Neumann in our marketing, distribution and product development," says Sunrise owner Tim Spencer, We're proude to be associated with Neumann and couldn't have asked for a better partner."

The True Systems Precision 8 microphone preamplifier is available through authorized Neumann dealers at a suggested retail price of \$2,695

Circle 194 on Free Info Card

National Academy of Recording Arts and Sciences Honors Neumann GmbH with the 1999 Technical Grammy® Award

Berlin, Germany – The prestigious National Academy of Recording Arts and Sciences has awarded Georg Neumann GmbH the 1999 Technical Grammy® Award for innovation and advancement in the recording industry.

The Technical Grammy Award recognizes individuals or organizations that have made a significant and lasting contribution in the areas of science and technology. The honor was presented at the NARAS Nominee Reception ceremony of Tuesday, February 23, 1999, at the California Science Center.

"For engineers and artists alike, Neumann has long stood for the world's highest quality studio recording microphones," Professor Sennheiser said. "We are honored and gratified that the National Academy of Recording Arts and Sciences has recognized the company's 70 years of innovative technology and contribution in establishing a true benchmark of quality in the recording industry."

Neumann joins an elite roster of Technical Grammy recipients including Dr. Thomas G. Stockham, Jr., Raymond Dolby, Rupert Neve, George Massenburg and Sony/Pjhillips. The Technical Grammy was first awarded in 1994.

The award winning line of microphones from Neumann has been the standard of the industry since 1928. Since that time, the company has been driven by a commitment to provide innovative, technically refined products and engineering solutions in proven Neumann quality.

Circle 195 on Free Info Card

Neumann Unveils New Tube Microphone at AES'98

San Francisco, California – When it comes to new microphone design, Neumann has proven again that pushing the limits is what they do best. The new M 147 Tube is the latest model to join Neumann's award winning and appears the discontinuous line. The M 147 Tube office.

condenser studio microphone line. The M 147 Tube offers Neumann's proven high quality at a reasonable price.

At the heart of the M 147 Tube is the K47 capsule, made famous in the legendary U 47 and U 47 FET microphones. It exhibits an acoustically well-balanced frequency response (20Hz - 20kHz) and features a supercardioid polar pattern with very even attenuation of signals from the rear of the microphone. In addition, the M 147 Tube demonstrates extremely low self noise for a tube microphone (13 dB-A) and has the ability to handle acoustic signals up to 130 dB SPL without distortion.

Exceeding traditional designs. Neumann has selected a modern tube complemented by a transformerless output circuit. The result is a more controlled, uncolored audio signal from capsule to output. Bass response extends quite low while avoiding phase problems or low level signal losses typical of transformers.

Similar to all the microphones in the Neumann line, the response characteristics are achieved acoustically. By employing the K 47 capsule, this ensures the same warmth and clarity produced by the U 47 and U 47 FET

microphones. The M 147 Tube also maintains excellent impulse response and faithfully reproduces transient signals found in music and speech.

"The M 147 Tube pays homage to Neumann's rich 70-year history in innovative microphone design," says Karl Winkler, product manager for Neumann/USA. "It meets the requirements of project, home and professional studio markets for a world-class microphone at a reasonable price. "The M 149 Tube was instantly accepted as a new benchmark in high-end tube microphones after its introduction in the Fall of 1995. We expect similar results from the M 147 Tube in a single polar pattern tube mic."

Available in December 1998, the M 147 Tube will ship in a robust aluminum carrying case with a standard mount, power supply, and cable. Retail price will be \$1,995.

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Voice Over America

With today's ISDN linkups, you can easily produce voice-overs from anywhere in the world – even from the comfort of your own home studio. Think about it...the spot you cut this afternoon could be uplinked by satellite this evening for global broadcast. Now that you know who's listening, shouldn't you insist on a microphone that will let you sound as good as you are?

The Neumann TLM 103. The new world standard vocal mic, at a price within any budget.



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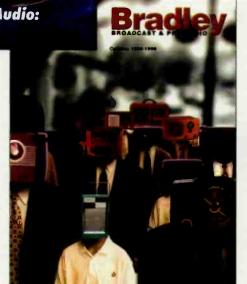
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Circle (265) on Free Info Card



Cutting Edge Technologies: Omnia ToolVox

The Omnia ToolVox is an all-digital mic processor specifically designed so it won't fight the on-air processor through the use of specialized AGC and compressor sections designed with ratios and time-constants that complement the on-air processor. The de-esser is built around advanced FFT



analysis techniques to prevent the on-air processor from creating harsh sibilance. Incorporates phase rotators and TrueVerb from Waves. Includes a reference-quality mic pre-amp with high-end features, such as 24-bit A/D converters and phantom power. Stereo analog and AES/EBU outputs are provided.

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Spherion

The Spherion is founded on Klotz's 3d: router technology, which allows multiple control rooms to share sources, logic, control and DSP functions.

Available in two sizes: a 12-fader version

with a minimum of 24 input sources and a 20-fader console with a minimum of 40 input sources and DSP production features. Sources include microphone, stereo analog line and various formats of digital line inputs.

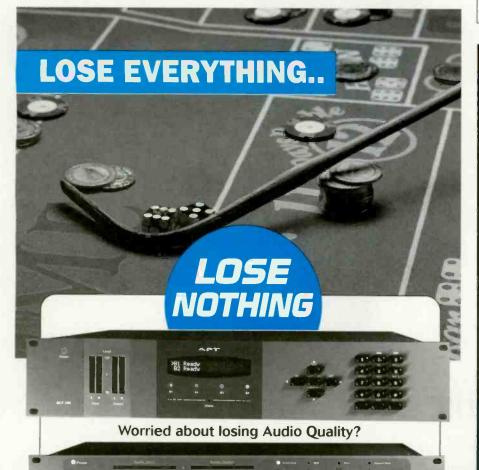
+49 89 462 3380; fax +49 89 462 3818 sales@klotz-digital.de

www.klotzdigital.com
Circle (268) on Free Info Card

S Arrakis: Arrakis DL4

Several versions of Arrakis DL4 soft-ware are available. The systems run on a Windows 95 PC computer to control the DL4 workstation. The digital audio engine features Triple Play with simultaneous record (expandable up to 96/32 play/record events) and separate outputs for each playback with console start/stop, cart-like control logic.

(970) 224-2248; fax (970) 493-1076 sales@arrakis-systems.com www.arrakis-systems.com Circle (269) on Free Info Card



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Imp # Unload

Live Assist/Cart Replacement

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The first truly user friendly digital audio system. A perfect replacement for those aging cart machines. Operate manually like a six deck cart machine or use Script Automation for advanced live assist features. You wor't need a staff of computer wizards to operate it either. Because CartWorks is designed to look and operate like traditional broadcast equipment, it's easy to learn and use.

Satellite Automation

All the features of our Live Assist workstations plus advanced Satellite Automation. Includes 8X2 stereo audio switcher and everything you need for live, local sounding satellite automation.

CartWorks' powerful Script Automation provides more than just the standard features. Extended control capabilities tackle even the most demanding applications. And there's no macro language to learn. It's all controlled from a simple Windows' point and click interface.

Music-On-Hard-Drive

Designed after the original CartWorks friendly user interface, here's a professional Music-On-Hard-Drive system that's simple to operate yet powerful.

Sound live 24-hours a day with pre-recorded, In-context voice tracks that match what's actually on the air.

To keep things simple, Spot sets are played from a familiar cart deck. Music log events are played from a music log.

CartWorks MHD accepts logs from most any of your favorite music schedulers. Or use our included Quick Scheduler.

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Pacific Research & Engineering. The Consolidation Company.

Since 1969, Pacific Research & Engineering has partnered with the radio broadcasting community as a supplier of custom studio solutions. We are the nation's most respected manufacturer of high-reliability audio consoles for on-air and production applications.

But frankly, our reputation as a great console maker has caused us a tiny problem.

Every year at NAB, people come to our booth to see the latest console offerings. They look at the beautiful furniture our consoles are displayed in. Then they ask us, "Who builds your cabinets?"

The answer is: we do.

In fact, we build entire radio studios. Not just the consoles, but the studio furniture, wiring and interconnections, systems integration, installation, testing & training, ongoing support... Pacific Research & Engineering isn't just a console company. PR&E is The Consolidation Company.

Allow us to acquaint you with the full range of services PR&E can provide to help your next studio project deploy smoothly, on time and within budget:

- Broadcast Consoles. PR&E's complete line of audio consoles includes mixers for radio and television on-air and production, and special applications as well. Our first console was a custom, one-of-a-kind board manufactured for KFI, Los Angeles in 1975. Today, with the recent introduction of our second digital console, AirWave Digital, we have shipped over 3,000 consoles to broadcasters worldwide! PR&E consoles demonstrate time-proven reliability, with many still in service after two decades of more of daily operation.
- Studio Furniture. PR&E's furniture design team has been producing award-winning custom designs since the early 1970's. From free-form cabinets with flowing curves and expansive work surfaces to visually stunning eye-catchers made of non-traditional materials, PR&E custom studio furniture is strikingly attractive and amazingly durable. We also offer semi-custom and economical, fully modular furniture lines to suit every need and budget.
- Systems Integration. PR&E audio consoles are carefully designed to bring together over 10,000 components into a single, flawlessly functioning whole. We apply the same diligence and care in assembling and wiring the hundreds of separate products that become a radio studio. In fact, we've built more than 2,000 great studios worldwide! PR&E Systems Engineers can design and facilitate almost any project, at any level of involvement. Whether a full turnkey studio installation or just a part thereof, Pacific Research & Engineering is more than equal to the task. Here are some of the services PR&E Systems Engineering encompasses:
- Wiring and Interconnection. PR&E technicians are experts in this vital area. We take the time to design, build and document wiring and interconnections which are easy to manage and maintain, and which will last the lifetime of your installation. Our experience includes custom design and fabrication of audio and logic cabling, computer and telephone room networks and terminal rooms. We wire through all types of wire management specifications: trenches, conduit, raised floor, overhead trays you name it, we do it.
- **Pre-Installation Testing.** All of our studio design and integration projects are subject to a stringent quality control process, and are completely assembled, tested and documented prior to leaving our headquarters to ensure your satisfaction upon delivery.
- On-Site Installation. If you choose, expert PR&E Installation Teams will work with your personnel during final on-site assembly of your studios, including thorough studio checkout and systems verification. Training can also be provided.
- Ongoing Support. Not just one, but two independent research firms have ranked PR&E "number one" in customer satisfaction. We're completely focused on helping you find just the right

studio solution for your operational needs. And, we're committed to long-term parts and service support; our Technical Support specialists are on-call when you need them.

And now PR&E has introduced a new way to make building "turnkey" radio studios easier and more cost-efficient than ever: StudioAdvantage Total Studio Solutions.

Studio Advantage studios are selfcontained, acoustically isolated "modules", which can be moved and adapted to new

locations. Move your stations across the hall, across town or across the state — and

take your studios with you, without having to rebuild from scratch. Once installed, however, these well-appointed modular studios are visually indistinguishable from traditional built-in rooms, and can be configured to fit almost any space imaginable.

"When we refer to StudioAdvantage as a Total Studio Solution, we mean that literally everything in the studio comes together in one package," says Pacific CEO Jack Williams. "Audio source and control components, studio furniture, sound and vibration isolation, HVAC, cabling and wiring — everything. "

"Using a StudioAdvantage solution can help shave precious days or even weeks from your installation schedule. Anyone who has ever built a radio studio from scratch will instantly appreciate its benefits. Instead of having to painstakingly oversee planners, architects and

contractors who are likely unfamiliar with the skills needed to build a truly 'quiet' room, managers who choose StudioAdvantage can rest easy knowing that their new studios will be completed on time and on budget, and will be acoustically superior."

StudioAdvantage Total Studio Solutions give managers the added benefit of knowing exactly how much their studios will cost before they are built — and knowing with pinpoint accuracy when they will be delivered and installed, virtually eliminating budget overruns, emergency lease extensions and costly after-the-fact modifications to the studio design.

Call us at 760-438-3911 to find out more about the broad range of services and products that PR&E can provide.

PR&E. We're not just a console company... We're The Consolidation Company.



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Syntrillium: Cool Edit Pro Version 1.2



version from the company's website

Cool Edit Pro Version 1.2 includes full reverb, hard limiter

and pitch bender effects; Real-Media G2 support; real-time preview and enhanced quality for almost all effects; and automatic silence detection and deletion. Includes video tutorials that demonstrate how to navigate in Cool Edit Pro and use its main features. The upgrade is available free of charge to licensed users of Version 1.0 and 1.1. Users can download a fully functional demonstration

⇒ Nautel: XL12

The XL12 is wideband, solidstate AM transmitter capable of 145-percent positive peak output at 12kW. The modular design

has eight power modules capable of 1.6kW each. Each power module has two RF power amplifiers inside. Modulation is done with interphase pulse duration modulation. The overall system efficiency is 84 percent. Modules connect with D connectors and can be removed and inserted while the transmitter is in operation. A complete standby exciter with automatic changeover keeps the transmitter on the air in the event of a failure.

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Roland: V-Mixing system



The V-Mixing system features a separate console/processor design and up to 94 channels of digital mixing with 16 channels of stereo effects. The system allows you to connect the motorized-fader console up to 200 meters from the rackmount processor/audio I/O box using two standard AES/EBU cables, eliminating the need for expensive, cumbersome audio snakes between the stage and mixing console or the studio and control room. Up to 40 XLR inputs, 48 channels of ADAT/Tascam communication, 5.1 surround mixing, full automation and COSM Speaker Modeling capabilities.

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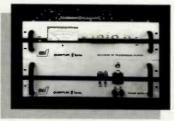
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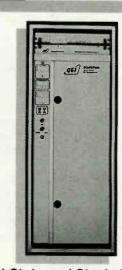


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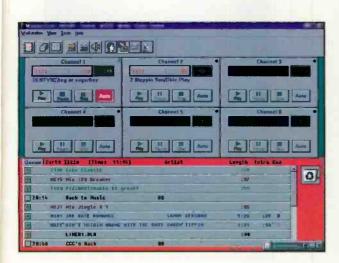


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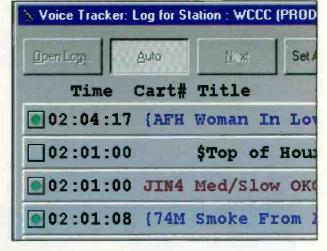
NEWSROOM

Whether you have a single station or a full-service news operation, NewsRoom is the solution for news departments everywhere. Flexible wire handling capability and audío production/editing provide the tools to produce a completely integrated newscast. Just line-up your stories and go. It's that simple!

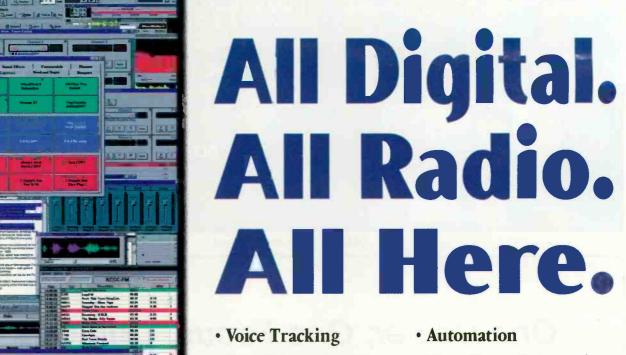
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Automation can play an integral role in any radio operation. With VoiceTracker, talent can prerecord voice cuts for an automated shift. Overlaps, cross-fades and audio levels can be previewed and adjusted for live sounding automation in a fraction of the time. Best of all, no one can tell the difference ... is it live radio, or a prerecording?



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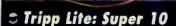
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The Super 10 features 10 outlets with built-in safety covers. Two of the 10 outlets are designed to remain

on even when the master power switch is off. All Super 10 models include a 10-foot cord to reach distant outlets and a

space-saving right-angle plug. Colored cord stickers identify each connected device's cord. A unique design allows

transformers to be plugged in without covering adjacent outlets.

The deluxe model includes a fourth LED to alert users to dangerous low-voltage conditions that could damage connected equipment and corrupt data. (773) 869-1111; fax (773) 869-1FAX

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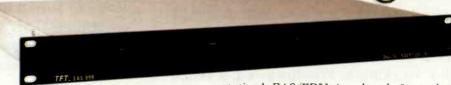


The 999 is designed to fit applications

for stations with a fully digital signal chain, the unit allows a digital or analog signal to be inserted into a

DARs OMR8 lineup includes the high-

resolution music recording and mas-



station's EAS/EBU signal path. Intended to serve as the digital version of TFT's Model 940A program/transmit interrupt unit. Features include a digital interrupt for transparent AES/EBU operation; support for all current AES/EBU formats (including 32kHz, 44.1kHz, 44.056kHz and 48kHz); signal detect for automatic switching, control and backup; seamless interruption.

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🧢 Digital Audio Research Ltd (DAR): OMR8

tering OMR-8MR and the OMR8-P for audio production/post-production editing. A high level of audio networking is integral to DARs design approach, with the inherent flexibility of the OMR8 based on DARs Genesis software platform. Addressing the fundamental issues of file format and data handling, Genesis has adopted Microsoft .wav files as its native format, enabling easy compatibility with other products

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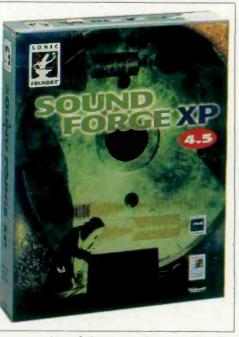
Scott Studios Corporation: Scott Linux System



The Scott Linux System plays commercials, songs and other recordings digitally in air studios. Linux is a stable UNIXbased multitasking operating system that is free off the Internet. Scott Studios supports the system 24 hours a day.

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Sonic Foundry: Sound Forge XP

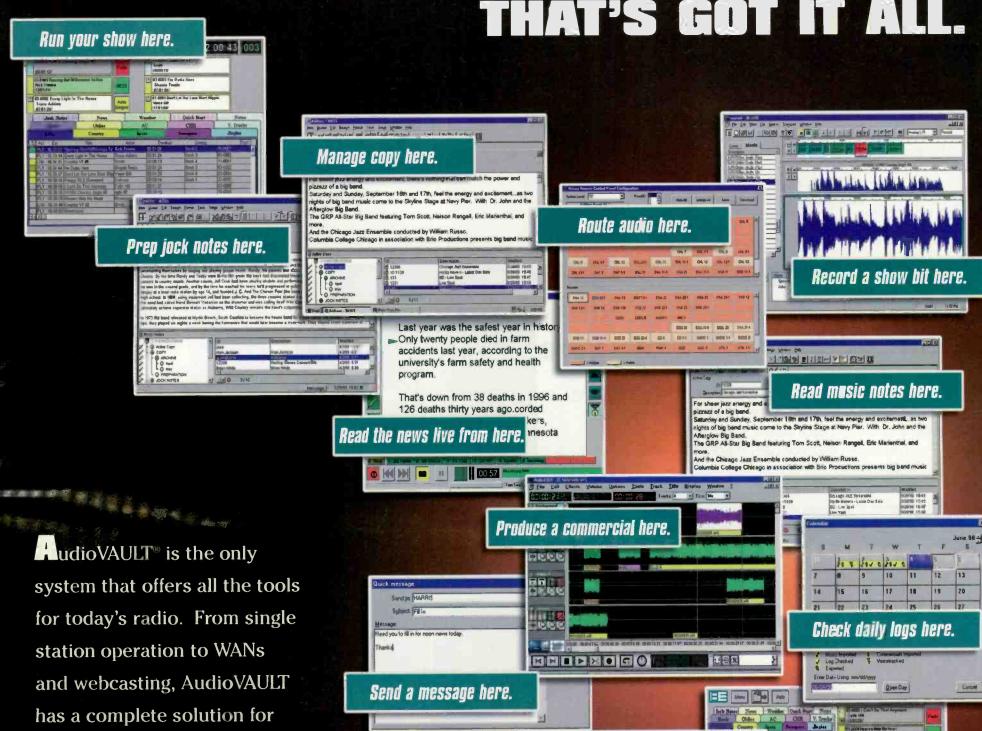


Version 4.5 of the Sound Forge XP, the mass-market version of the Sound Forge digital audio production system, allows professional Internet audio production with a PC and a soundcard. The upgrade includes a suite of new loop editing tools.

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🕏 Azden: 411DRH

The 411DRH UHF receiver is manufactured in a metal half-rack case and is designed to stand alone or mount, with optional rack adapters, in a stan-

> dard full 191/2-inch rack. Features include a front panel on/off switch, volume adjust and RF and audio level display. Also on the front panel are the group and channel adjustment switches for choosing one of the 63 user-selectable UHF channels. The rear panel

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S Intraplex: IntraLink

The IntraLink eliminates the need to use codecs in pairs by providing full compatibility with MPEG Layer II,

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codecs. Facilitates the management of remote broadcasts, conserves studio rack space and allows broadcasters to redeploy existing codecs to the field. The 6500 supports up to six BRI ISDN connections simultaneously in a 3RU space. Also delivers LAN data at rates of up to 128kb/s in one ISDN line. The 6100 supports up to three ISDN connections simultaneously in a 1RU space.

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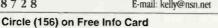
NSN's unmatched integration experience has made us the nation's preferred choice for VSAT networks. We are the largest authorized distributor of ComStream digital audio equipment. The recent addition of Wegener's digital audio product line provides us with an extensive array of the finest satellite equipment and broadcast communications products to meet your needs. NSN offers complete, turnkey networks with spacetime for coast-to-coast stereo audio starting at just \$1,595 per month! Look to us for:

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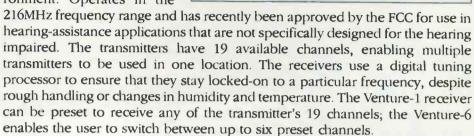
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tom designs, from one-of-a-kind pieces to standard studio furniture.

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Gentner: Venture line

The Venture line of assisted listening system products is now available for shipment. The series comprises transmitters and receivers that use a wide area FM signal to provide maximum voice intelligibility in virtually any environment. Operates in the



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PMI Audio Group: C2

The C2 is a 1RU stereo compressor. The unit offers a range of compression effects based on a new design that makes the compression ratio vary with the input control. Incorporates the newly developed Joemeek Sum and Difference compression system, thus improving the unit's stereo image stability and the accuracy of the left and right gains. Features auto-variable slope optical compression/limiting.

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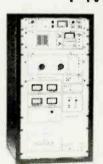
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All-in-one production and playback package rips CD's, plays and records MPEG-2 on any Windows sound card; priced under \$700

WINNIPEG, MB (May 18, 1999) — MediaTouch, a division of OMT Technologies, Inc., announced its new QuicPix Audio Studio software package with pricing starting at \$699.

"We received such a tremendous positive response to both our QuicPix instant-start cartwall and MediaDisk-32 production software at NAB '99," explains MediaTouch president Ron Paley, "that we decided to take the best of both products and offer it as one value-priced package."

The QuicPix Audio Studio runs on the Windows 95/98 platform and uses MediaTouch's Card Independence technology to play and record broadcast quality MPEG layer 2 audio.

In the playlist mode, users can load anything from the audio library into a seven event virtual cart player, or switch to a library view to "hot start" any of 40 items on the screen. Two items may overlap each other on a single audio card.

The QuicPix Audio Studio is packed with production power. CD's can be "ripped" – digitally converted to an audio file in less than real time without dubbing, or sources can be recorded through the sound card using the traditional tape deck-like control buttons. A professional version of the program, priced at \$995, adds cut and paste waveform editing and effects such as audio flip and pitch change.

The software will be available in the US through Broadcaster's General Store in Ocala, FL (800-636-0123) and in Canada through Oakwood Broadcast (800-665-0501).

Since 1984, MediaTouch has been designing and developing innovative audio solutions for the broadcasting industry. MediaTouch is the audio and Internet software development division of OMTTechnologies Inc., a privately held company founded in 1968 and based in Winnipeg, Canada. For more information about MediaTouch, access the company's World Wide Web site at www.omt.net.

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The rackmount versions of the Pulsar EX units, the EX 1000 VA and 1500 VA are 2U high; the 2000 VA and 3000 VA models are 3U high. The units offer optional long-duration batteries and full-time seamless voltage regula-



tion for a variety of systems. Other features include online double conversion technology with 100-percent rated electronics, input power factor correction and an expansion slot for optional SNMP or status card. Each model is shipped with the company's exclusive Solution-Pac power management software.

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The ex-tend-it PC/Mac2000 allows for switching between any combination of up to six PCs and/or Macintosh computers using only one monitor, keyboard and mouse. The PC/Mac2000 replaces the PC/Mac241

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WhisperRoom: SE series



The SE Series of portable isolation enclosures offers a unique modular design with manageable component weights. Easily assembles and disassembles. Walls are 3 inches thick, and floor and ceiling panels are 1 inch thick. Provides access for communications (e.g., microphone, headphones, speakers). Features acoustically engineered, detachable ventilation systems. A door window is standard, and a wall window is optional.

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NAUTEL XL60 Solid State AM Transmitter



The NAUTEL XL60 solid state 60kW AM broadcast transmitter has reserve power for the most aggressive AM signal processing and up to 155% positive peak program modulation at 50kW. Capable of up to 66kW, the transmitter is eminently suitable for simultaneous In-Band-On-Channel (IBOC) digital audio broadcasting while maintaining full power AM service. NAUTEL's Interphase Pulse Duration Modulation System provides wide band frequency response, linear phase response and fully satisfies all designated IBOC performance criteria.

The XL60 establishes a new standard for transmitter serviceability and reliability. Ten front access Power Modules are hot-pluggable and safely on-air serviceable. Full 50kW transmission is possible even with a Power Module removed for service.

Duplication of critical low level circuits is unique to NAUTEL AM transmitters. Should problems develop in the RF Drive Circuits or the Modulation Encoding or Drive Circuits, automatic changeover to the standby system will continue normal transmission without operator intervention. Overall efficiency of 84% results in low power consumption and cool reliable op-

The NAUTEL XL series transmitters are available in 12, 30 and 60kW models. All are available with built-in AM stereo or Direct Digital Synthesizer options.

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NAUTEL XL12 Solid **State AM Transmitter**

NAUTEL's XL12 100% solid state AM transmitter, approved by the FCC for 10kW operation, is an excellent choice for Expanded Band operation. It provides 20% reserve power, allowing full 10kW operation even if one power module is out for repair or maintenance.

An optional AM stereo generator is avail-



able built-in. Top operating capacity of the XL12 is 13.2 kW, so at 10kW operation the transmitter runs smoothly and reliably. A power module can be removed and replaced while the transmitter is still on-the-air. This on-air serviceability advantage is unique to Nautel.

The Nautel interphase PDM design meets all USA Digital Radio IBOC DAB

compatibility criteria, includ-

ing wideband frequency response and linear phase response.

For the highest operating efficiency in a 10kW AM transmitter, the XL12 delivers with an 84% overall efficiency rating. This substantial savings in power makes the XL12 a great investment and continues Nautel's 30 year tradition of solid state leadership.

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NAUTEL FM 10 Transmitter and Digital FM Exciter

The NAUTEL FM10 is a solid state modular 10kW transmitter incorporating a 50 watt exciter which employs Direct

Digital Synthesis (DDS) technology to create the FM

The exciter with direct digital interface accepts AES/ EBU formatted input, making possible an all digital path from studio to FM modulator. Modulation created in the digital domain results in a perfectly linear system. The exciter is also available with an alternative analog interface for use with standard composite input. This may later be field upgraded to direct digital input.

Overall efficiency of the transmitter is typically 65% resulting in low power consumption and cool, reliable operation. Thirty-six RF amplifiers mounted in six Power Modules are combined using a single stage combiner to achieve 11,000 watt capability. NAUTEL's patented 60° combiner provides failure isolation without use of imbalance loads and their associated heat dissipation.

This prevents thermal stress even when operating with some amplifiers removed for service. Power amplifier repairs can be

made by direct replacement of the MOSFET's without interruption in transmission.

Separate Switching Regulator Modules provide redundancy of DC supplies to each Power Module and IPA. The FM10 power supply system meets stringent international standards for low line current distortion and has a near unity power factor. Current ratings of the service entrance and standby generator may thus be kept at a minimum.

NAUTEL's design is optimized to achieve maximum operating efficiency at the customer's operating frequency. A range of 20 kW transmitter configurations are also available including switching or switchless combined systems with automatically controlled main/alternate exciters.

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Knowledge



is power.

You know the best is elegantly simple. You know the best is efficient and reliable. You know the best is digital-ready.

The Nautel XL series of AM transmitters are built to provide the reliability you've always wanted, and the capabilities you'll need in years to come. Every XL model is 20% more powerful than competing transmitters. That's enough reserve power to accommodate simultaneous IBOC digital transmission while maintaining full AM performance.

With this reserve power, an XL transmitter virtually has a spare module built in. They're hot-pluggable, which means you benefit from unsurpassed system reliability and can maintain full operation even in the unlikely event that a power module

> requires service. Full duplication of critical low-level circuits further contributes to system reliability.

The XL series is available in power outputs from 12-60 kW. If you're considering a new transmitter, take a close look at Nautel. You'll find elegant design, rugged engineering, digital

capability and, literally, power to spare. For more information about our full line of AM and FM transmitters, visit us on the Web at www.nautel.com.



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procedures are included. APCO coordination is standard. Accepted by the FCC. (888) RADIO95; fax (904) 423-0821; www.radiosoft.com

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The PCI-based LX-44 builds on the existing SX series from Antex. This DSP-based, halfsized card uses 20-bit A/D converters to achieve a dynamic range of up to 96dB. Features include four analog inputs, four output channels and the ability to simultaneously mix (under Windows 98/NT) four virtual devices to any output.

(310) 532-3092

fax (310) 532-8509; sales@antex.com; www.antex.com

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SMARTS: Smart-Dub

The Smart-Dub makes it easy to transfer CD audio to your Smartcaster

> Music-On-Hard-Drive-System automatically and with limited user intervention. Place a CD in the unit's CD-ROM and type in the details of the cuts you want to dub. Smart-Dub uses special software to automatically place end- of-message tones on the music being dubbed so as to facilitate great sounding overlap. Smart-Dub is an add-on product to the SMARTS Remote Record Digital Editing System.

Murphy Studio Furniture: Elite series

The Elite series, the company's top-of-theline furniture system, features modular flexibility with the essence of a custom fit. Engineered into the design are numerous access panels, a curved bumper base for durability, a passive ventilation system, a wire management system, single level construction and total modularity. Components include console supports and wire troughs, a corner tower rack, a tower storage base, a sloped rack return, and a single turntable return.

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Sine Systems: Intelligent Rack Adapter

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360 Systems: TCR8

The TCR8 is an eight-track harddisk recorder that features 24-bit audio quality, high-density removable disks, massive internal hard-disk storage, com-

plete timecode implementation and VTR emulation.

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🗢 Gepco: 552608GCF

The 552608GCF — a flexible, thinprofile, eight-pair digital cable — is designed for cable assemblies with multi-pin connectors, studio

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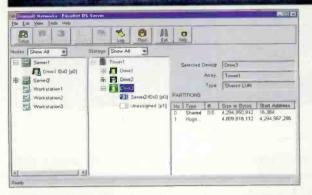
track recorders and routers. The color-

coded pair jackets follow the base-10 resistor color code. The master jacket is UL-listed, NEC-type CM. The 100V cable features two 26-gauge tinned copper conductors, a foam PE dielectric and a foil shield with 26-gauge TC drain wire. (312) 733-9555; fax (312) 733-6416; gepco@gepco.com; www.gepco.com

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Transoft Networks: FibreNet DS



FibreNet DS provides networked storage access without the restrictions caused by tra-

ditional network speed, bottlenecks or storage limitations. FibreNet DS presents the concept of shared data and allows heterogeneous or homogeneous hosts to concurrently access file systems. Individuals sharing data can now easily optimize their cross-platform

environments. The data-sharing features of FibreNet DS deliver unprecedented performance for distributed file systems, allowing a group of heterogeneous nodes to read and write to the same file system and even the same file using byte range locking. FibreNet DS provides a solution for high-speed digital data transfer where Mac, UNIX and NT systems access shared data in audio, video, animation, imaging, data warehousing and other storage-intensive production environments.

(805) 884-9114; fax (805) 897-3355; enarmore@transoft.net www.transoftnetworks.com

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Lightning Eliminators & Consultants: Sandwich Block



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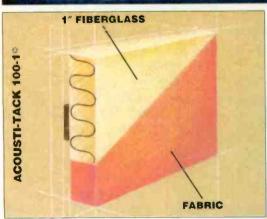
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StarGuide Digital Networks: StarGuide module

The StarGuide module is the latest option for use with the StarGuide II receiver. The unit is a high-performance, computer-on-a-chip board that provides local storage from 30min to 144min of 128Kb/s stereo audio spots. The module features state-of-the-art audio insertion technology, including external playback control, cross-fading and spot localization. Fully compatible with industry-standard audio automation systems and digital audioreceiver products, including equipment manufactured by ComStream, Wegener and IDC.

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SGolterman & Sabo Inc: Acousti-Tack



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Tektronix: TSD3000

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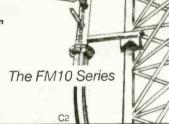
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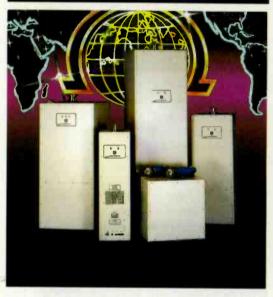
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Transcom: Transmitters

The company provides high-quality used AM and FM transmitters and is a manufacturer representative for new

antenna, cable, STL equipment and audio equipment.

(800) 441-8454; fax (215) 938-7361; www.trcorp.com

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Wheatstone Corp: D-600

The D-600 digital on-air/production console is available in mainframe sizes up to 40 positions. Inputs feature four-band EQ, dynamics processing, ducking and eight-character source displays. Four stereo buses provide digital and analog outputs. All switches, faders and displays are addressable via serial interface.

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ACT-1 tests all cables with XLR, RCA or phone connectors. Instantly displays cable wiring. Any shorts or opens are revealed. Can test cables from just one end. Provides an immediate and complete indication of the wiring status of any audio cable. With the flip of a switch, the unit provides a 500Hz test tone at either mic or line level for checking any signal path through an audio system. Can also be used for adjusting or calibrating levels.

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Mediatron: AirControl NT

The 1999 version of the AirControl NT hard-disk PC-

based digital audio system for radio includes new plug-in tools to make it more effective in connecting with technologies like the Internet, intranet, and DAB. With the new system, it is possible to enter into the broadcast schedule of a Mediatron system anywhere and to record directly into the schedule. The recorded voice elements can be directly transmitted. Available in standard and professional versions. The standard version can be built up step-by-step to the professional version.

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NEW MULTIFUNCTION LCD AVCOM's PSA-65C Portable Spectrum Analyzer

Microprocessor Controlled, 1-1250MHz In One Sweep! AVCOM's newest Portable Microwave Spectrum Analyzer, model PSA-65C, incorporates a microprocessor and attractive multifunction,

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AVCOM's new PSA-65C is a low cost general purpose spectrum analyzer that's loaded with standard features including FM audio demodulator, AM detector and digital frequency lock. The PSA-65C covers frequencies thru 1250 MHz in one sweep with a ser sitivity greater than -95 dBm at narrow spans. The PSA-65C is ideally suited for 2-way radio, cellular, cable, satellite, LAN, surveillance, educational production and R&D work. Options include new 1250 MHz frequency extenders, BNG-1000A tracking (noise) generator, log periodic antennas, carrying case (AVSAC), and more



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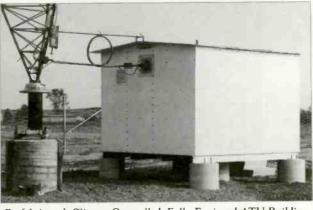
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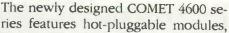
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Auditronics: COMET 4600



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Audio Processing Technology: NXL384

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S EVI Audio: R200

The R200's proprietary Secure-Phase diversity uses the signal from both antennas at all times to eliminate phase or polarity shifts and maximize signal strength. Operates in the range between 710.100MHz and 721.350MHz on single frequencies. The system's RCU receiver is designed to work with micro-

phone signals and offers a three-pin, XLR-type balanced mic level and 1/4-inch unbalanced line-level output connectors and specially tuned antennas.

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** RAMKO: '98/'99 catalog



This broadcast catalog offers more than 290 broadcast audio, video and digital problem solvers. The catalog describes the ProMod and ProMax lines of miniature and compact consumer to pro interface amps, mic amps, switchers, distribution amps, mixers, audio detector/switches, alarm generators and audio filters. A history and design description is also provided, which details the attention given to RFI proofing.

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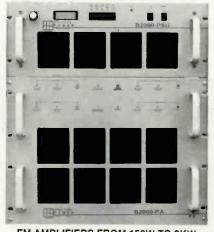
Shively Labs: Model 6013 FM



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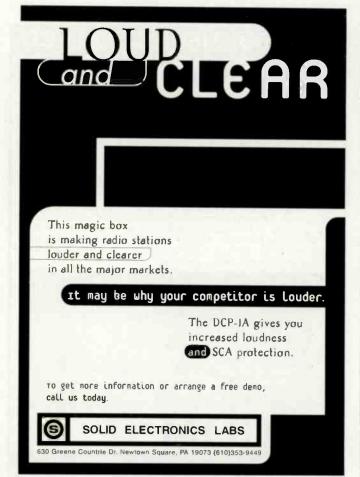
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S Andrew: Satellite antennas



The pipe-mountable 3.7-meter earth station antenna can be securely mounted onto a customer-supplied 6-inch (6.5-in O.D.) nominal pipe instead of a pedestal. The design eliminates the equipment enclosure, enabling the antenna to be installed in areas where space is limited. If required, outdoor RF equipment can be attached to the antenna's mounting frame in close proximity to the antennafeed system. Available with C-, X-, Kuand K-band feed systems. Uses advanced dual reflector technology with a twopiece precision-spun aluminum reflector to provide accurate surface contour, high gain and closely controlled pattern characteristics.

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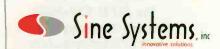


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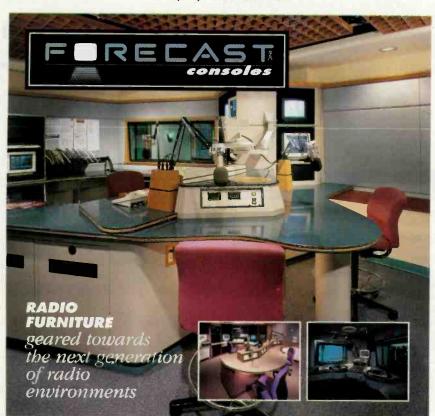


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Mouser Electronics: Catalog

The company's new catalog is now available in three forms: the traditional paper version, a CD-ROM catalog that offers a fully indexed and searchable product database, and a downloadable version available at the company's website.

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S Hafler: TRM6



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Broadcast Technology Company: CP-4013

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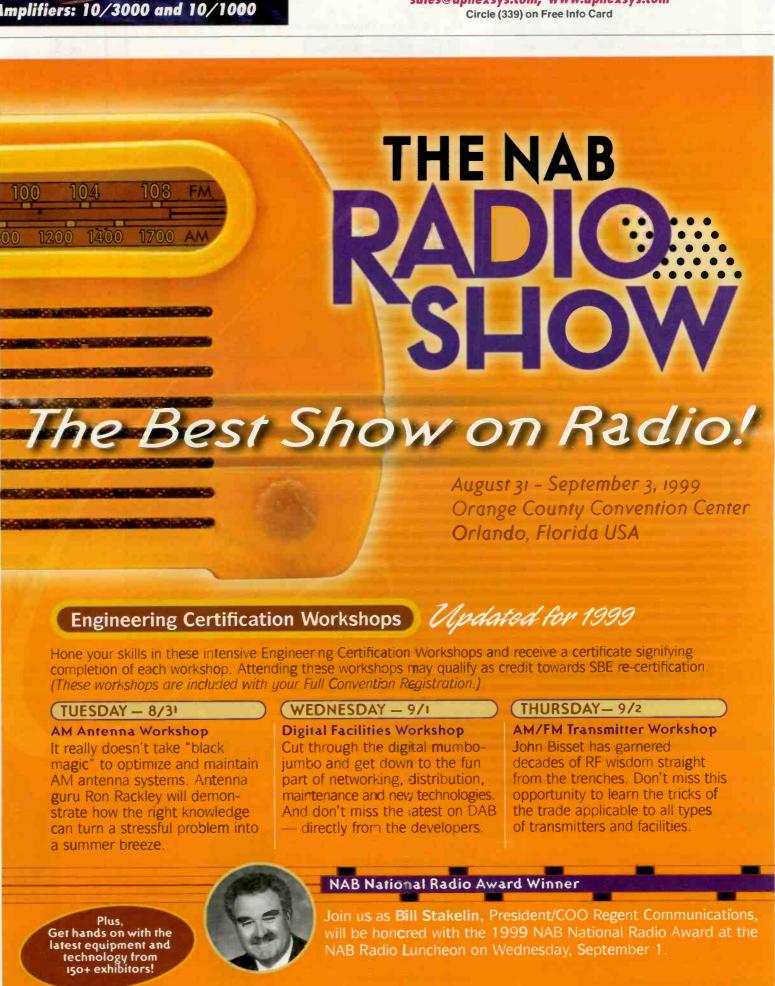
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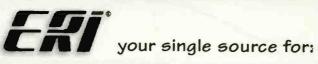
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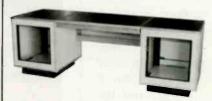
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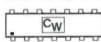
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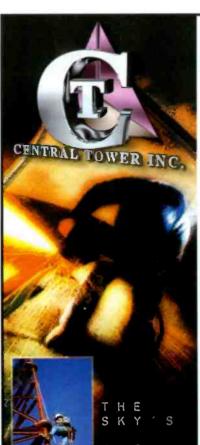
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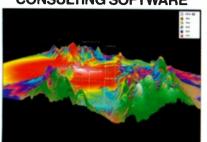


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Longley-Rice over 3-D Terrain

Professional software packages for preparing FCC applications & plotting coverage. For Windows & NT.

- Create "real-world" coverage maps & interference studies with Longley-Rice, TIREM, PTP, FCC & other models using polygon map features.
- Search for AM, FM, TV, DTV, & LPTV channels with graphics oriented programs and FCC databases.
- 'Plot STL paths in 3-D using 3-Arc second terrain datebases...and more!



Circle (114) on Free Info Card

Users talk about...



"Most of the stations I do engineering work for are in the market for digital systems. I told them I would definitely recommend a look at Digital Universe. I'm impressed by the system's speed and the graphic layout: it's very uncluttered. And anybody who knows CBSI doesn't even have to ask whether it's any good."



- Dave Wooten Chief Engineer KWIL

800-547-3930 www.digitaluniverse.org

Circle (113) on Free Info Card



Circle (111) on Free Info Card

Engineer's best

- · Eliminate flanging (hollow room) effect
- · Eliminate bad room acoustics
- · Hold absolute levels
- · Correct voice symmetry • Front panel input level select +4 to -50 dB
- Three section variable boost and cut equalization
- coupled for maximum punch · Built-in earphone jack
- Compander/Expander cross
- AIRcorp 500PH Microphone Processor
- · DE-ESSER designed to protect
- · Simultaneous mic level and line level ouptuts · Internal 48 Vdc Phantom Supply

pre-emphasis curves



Call your dealer... or call 972-304-0455 FAX: 972-304-0550

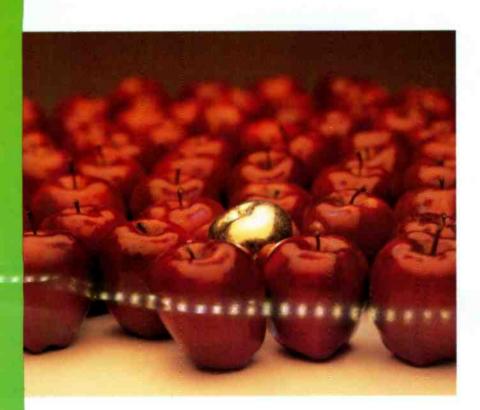
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Looking for the best digital audio system?

Compare apples to apples.



Digital audio systems aren't created equal. You'll find that Digital Universe, CBSI's new system for live assist, satellite, automation and routing, stands out from the crowd.



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E-mail: info@cbsi.org • www.digitaluniverse.org

800 547-3930



Because most other systems depend on compression, they take huge bites out of your audio before it ever reaches the airwaves. Digital Universe serves up full CD-quality, 44.1 kHz audio, start to finish. That's audio fidelity sure to appeal to even the most golden-eared of your listeners.

High Channel Capacity

Just try running a station on 2, 3, even 6 channels. Most systems can't get much further than that, uncompressed, without adding lots of extra hardware. Digital Universe gives you 50 stereo channels,* all from a single server. No other system comes close.

*Tested capacity as of January 1999. Advances in PC hardware yield ongoing improvements in channel capacity.

No Proprietary Hardware

These days, any system built around proprietary hardware is a dead end. But Digital Universe is software based, so your hardware choices are wide open. Run your system on standard, affordable PCs and mix and match audio cards among workstations: it's up to you.

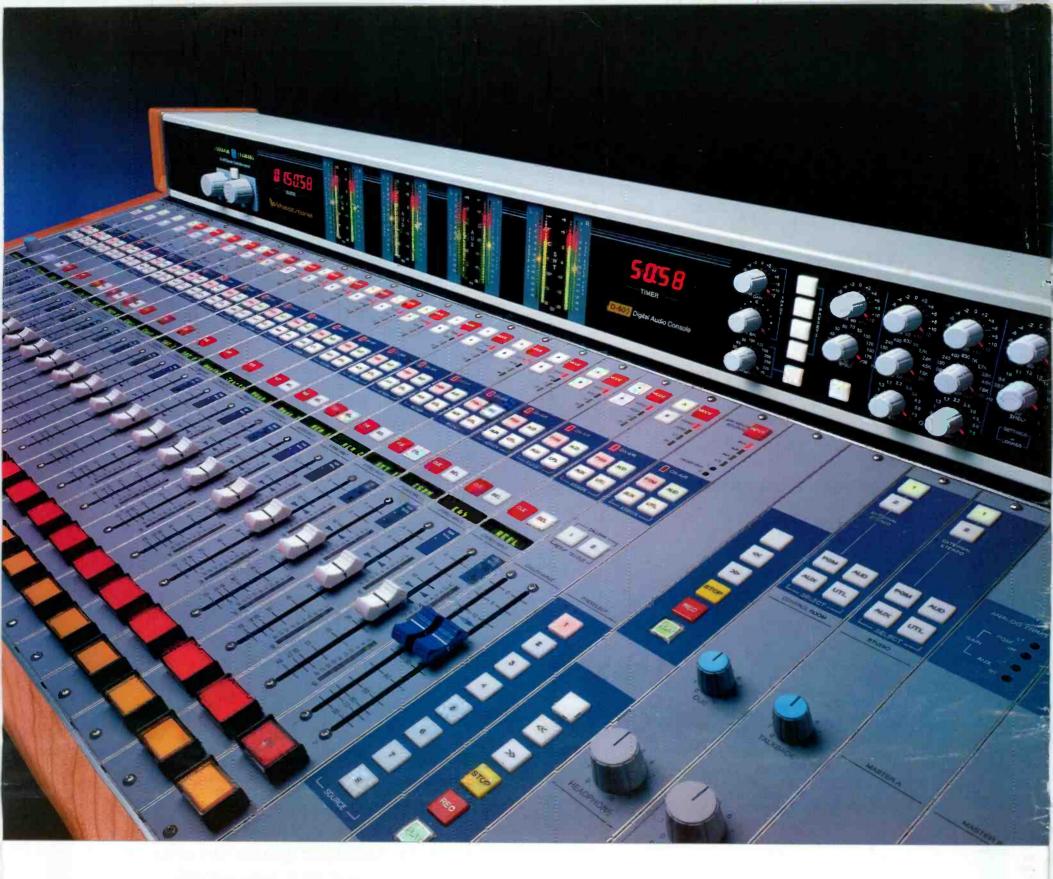
Windows NT + Chient/Server

Digital Universe's leading-edge Windows NT platform and client/server architecture give your system room to grow, without clumsy workarounds or multiple PCs in every studio. And Digital Universe was written for NT, not just "opt mized" for it – it's the right infrastructure for the future as well as the present.

Sound impossible? Take the Digital Universe challenge. Contact us today to request your checklist for selecting a future-proof digital audio system. Then, compare apples to apples. Once you've heard what Digital Universe can do for your station, you won't settle for anything less than gold.







DIGITAL INTEGRATOR

DON'T LET THE TRADITIONAL LOOK FOOL YOU! This new audio console from Wheatstone has the most advanced DIGITAL FEATURES available on the market today! How about serial control of all switch, fader and

eight-character source display settings—for

TRUE INTEGRATION with routers and automation systems—or four stereo mix busses with simultaneous digital and analog outputs? Multiple mainframe sizes? Dedicated phone modules with DSP generated mixminus for easy control of two to four callers?

BUT DON'T STOP HERE: optional DSP equipped modules allow programmable ducking with gain reduction and master/slave

selection, digital input attenuation, pan/balance, 4-band sweep EQ (plus sweep high pass), and compressor/limiter with threshold, ratio, attack, release and makeup gain—all on each input!

A meterbridge **router controller panel** can run our new Wheatstone rackmount switcher for hundreds of additional inputs. The totally modular hot-swap design accepts both analog *and* digital inputs. Dual metering is simultaneous VU

and full scale digital peak. Add a PC based setup program for quick configuration of all displays, mutes, tallies, machine starts and mix-minus assigns (once set the PC is removed for console stand-alone operation) and you begin to see the *power* that lies behind this intuitively simple control surface.

SOUND LIKE SOMETHING YOU'RE LOOKING FOR? Give us a call here at Wheatstone and ask about the brand new

D-600 DIGITAL AUDIO CONSOLE—our sales engineers would love to tell you more!



Wheatstone Corporation