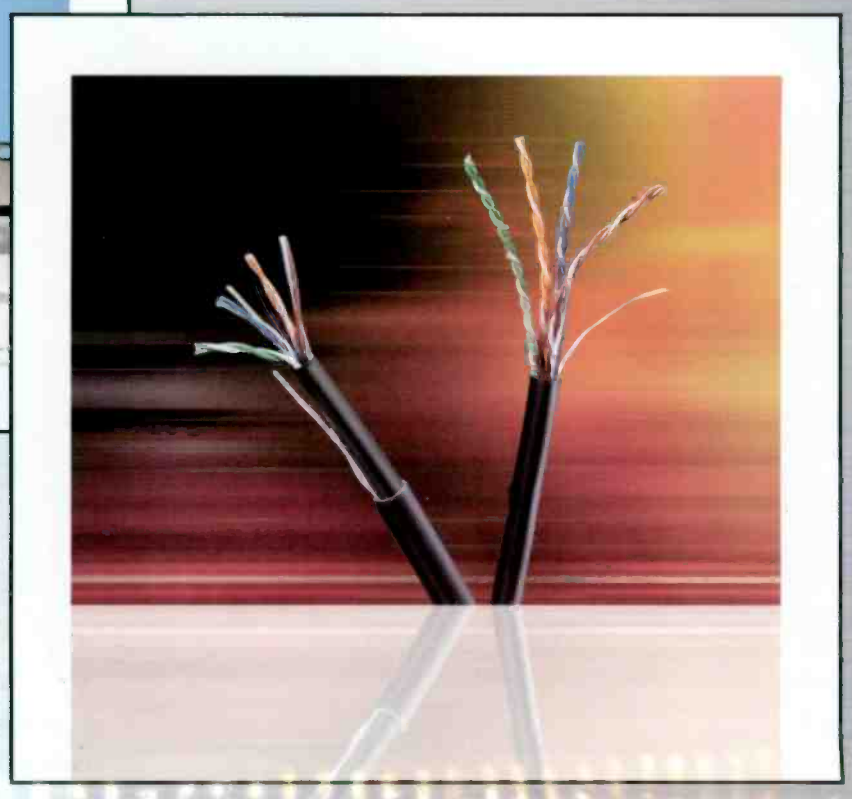
Radio®

www.RadioMagOnline.com

A supplement to Radio magazine



PRODUCT SOURCE

What's Google doing with radio automation?

Google has been redeveloping SS32 and Maestro from the ground up. Our new system can be summed up in just three words...

Progressive. Flexible. Sound.

800-726-8877

Visit www.google.com/radioautomation to find out more.

Come see us at the NAB Radio Show. September 26 - 28th in Charlotte, NC. Booth # 517.

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A Penton Media Publication

Condition your Signal

with the New Vorsis® HD-P3

What Is It?

A four-band parametric equalizer feeding a three-band limiter with adjustable crossover points, AGC and selectable filters for FM, AM or streaming audio formats. The HD-P3 includes a variable de-esser, an expander and dual digital outputs (one with user selectable HD latency FM delay), plus high pass, low pass and notch filters, *and* a signal de-correlator to optimize bass content. All this controlled by an ethernet protocol computer interface that lets you run one or many HD-P3s from your office or internet based locations.

What It's For:

Processing for your new HD signal, improving your existing FM or AM signal chain, preprocessing streaming audio-over-internet, a standalone HD processor or a realtime DJ monitor feed—and finally—a KILLER studio production tool.

What's It Like?

"PERFORMANCE WITH OVERDRIVE"

VORSIS®

It's What's Next in Processing

a division of Wheatstone

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ONE

Harris — The ONE choice for end-to-end radio solutions.

ZX™ Series

FM tri-mode transmitters featuring multiple PA modules and power supplies for maximum redundancy. When used with the FlexStar™ HDx Exciter, the ZX™ Series can operate in either digital only or FM/FM-HD. ZX transmitters are available from 500 W to 3500 W.

FlexStar™

HDx Exciter brings HD Radio™ and analog audio to a new level. Featuring real-time adaptive correction for increased power and efficiency and the latest iBiquity platform in HD Radio™ — Exgine — HDx Exciter unlocks new revenue streams.

Destiny™ 3DX-50

Highly efficient, medium-wave transmitter, and the latest in the DX™ family of world-class digital AM transmitters. Fully compatible with HD Radio and DRM. Harris AM transmitters are available from 1 kW to 2 MW.

PR&E NetWave™

Modular, network-enabled, high-performance radio broadcast console packed with features that are perfect for small to medium studios. Share all your studio resources throughout the facility with the Harris® VistaMax™ audio management system.

HD Radio is a trademark of iBiquity Digital Corporation.

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For more information visit www.broadcast.harris.com/radio, call +1 800 622 0022 or broadcastsales@harris.com.

Harris is the ONE company delivering interoperable workflow solutions across the entire broadcast delivery chain with a single, integrated approach.

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Broadcast • Government Systems • RF Comm • Microwave

The Changing Landscape

Radio broadcasting, especially in the last few years, is changing immensely. What with the introduction of HD Radio, satellite subscription services and webcasting stations on the Internet, let's face it, radio is not exactly what it used to be. But radio will always adapt and evolve with cultural and technological advancements, and now more than ever, the *Radio* magazine Product Source can help guide you along this ever-transforming path.

This year, the Product Source is full of new technologies, new ideas and the tried-and-true. As always, we are bringing you information on products for remote broadcasting in Out and About; production in Portable Production; everything you need for off-site settings in Beyond These Walls; and the latest in literature, because you know we can never stop learning, in Reference Room. But new this year, is the Music Libraries section, with resources to enhance that dull void often called the background. And of course there are our 15 Pick Hits from NAB2007.

We hope that we are a valued resource for your product needs and welcome all feedback. We believe that we have assembled an impressive collection of new products, but if you have a favorite product that we should include or highlight in *Radio* magazine, we'd love to hear from you. Please contact us at radio@penton.com.

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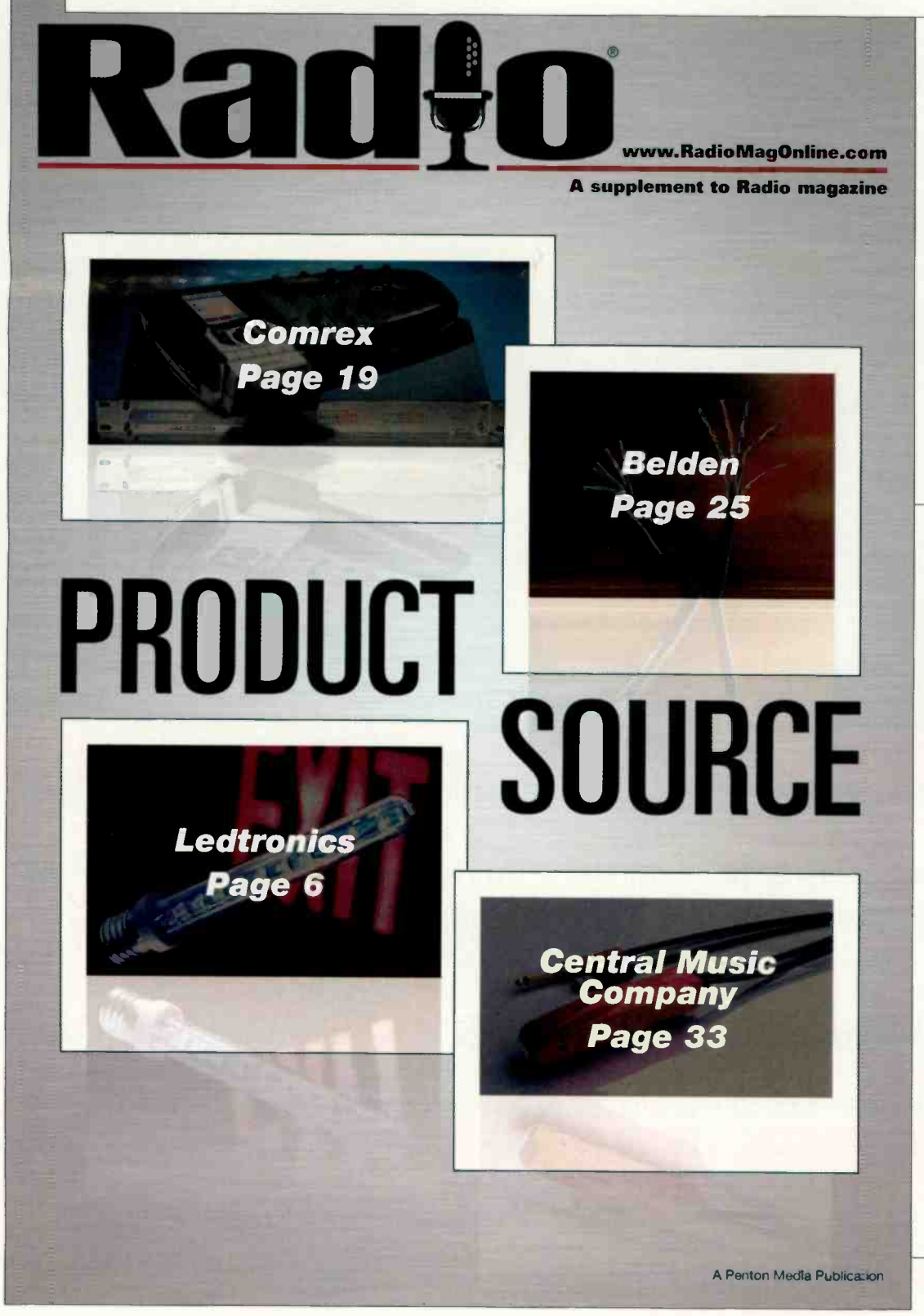
Erin Shipps

Erin Shipps,
Associate editor



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Impossible Remote?
Nah, You've Got ACCESS.

Meet Another Real-World Super Hero...

Broadcasting a live Phoenix radio program from out to sea would be challenging for even the most seasoned veterans. Not for Attorney and Certified Financial Planner® (and world traveler) Keith DeGreen. Keith is shown here using the Comrex ACCESS Portable as he and his ship, The Global Adventure, approach Koror Harbor In The Republic of Palau—450 miles east of the Philippines and 7,200 miles from Phoenix!

ACCESS delivers mono or stereo over DSL, Cable, Wi-Fi, 3G cellular, satellite, POTS (yep, ACCESS is a full featured POTS codec and works seamlessly with Matrix, Vector and Bluebox)—plus some services you may not have even heard of. Given the challenges of the public Internet, it's no small boast to say that ACCESS will perform in real time over most available IP connections.

Contact Comrex today and find out how ACCESS can make you become a Real-World Super Hero—wherever you are!

Keith has been broadcasting his radio program, a unique mix of personal finance, economics, politics, and real-life "extreme broadcasting" adventure for 19 years. Listen live 8—11AM Sunday mornings AZ time on NewsTalk 550, KFYI, or catch Keith's archived shows, and enjoy the amazing videos, photos and blogs of his open-ended 'round-the-world journey at his website, www.theglobaladventure.com.

Keith DeGreen says: "Whether I'm a thousand miles out to sea, visiting unusual ports of call or exploring remote inland places, my Comrex ACCESS Portable empowers me to project a broadcast-quality signal back home at anytime from virtually anywhere."

ACCESS

Put Comrex On The Line.

COMREX

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19 Pine Road, Devens, MA 01434 USA • Tel: 978-784-1776 • Fax: 978-784-1717

2007 PRODUCT SOURCE

Cable connector
Neutrik

EMC-XLR: The EMC-XLR is comprised of three-pole male/female XLR cable connectors with integrated LC-filters, which avoid the RD interference and LF noise. There is also a 360-degree shield contact on the female connector that ensures shielding and chassis contact. This connector can solve problems such as ground loops, RF interference and Pin 1 problems.

732-901-9488; www.neutrik.com
info@neutrikusa.com

Portable recorder
iKey-Audio

iKey Plus: The iKey Plus Portable USB Recorder, provides a versatile platform for portable live audio recording. Designed to work with an Apple iPod or any external USB storage device, the iKey Plus can record live audio to MP3 or WAV format directly to a USB Compatible storage device in real time. The unit records audio to uncompressed .wav formats or MP3 with selectable bit rate, up to 320kb/s. It has gold-plated RCA inputs and a mini stereo microphone.

www.ikey-audio.com

Audio software suite
KLZ Innovations

Audiofile: Use the GPI delay system, mic skimmer, audio logger, silence detector and MP3 streamer/extractor simultaneously on all eight channels with this post-broadcast audio suite. Users can choose from two, four, six or eight channels, each pair configured as stereo or dual mono. MP3-archiving, skimming and streaming is built-in. Remote access is also included via KLZ Webserver technology. Audio is linear 48kHz PCM. GPI delay requires a GPI interface that includes four opto-coupled inputs, eight relay outputs. The interface features a timeline, channel/date tree, skim segments and three players.

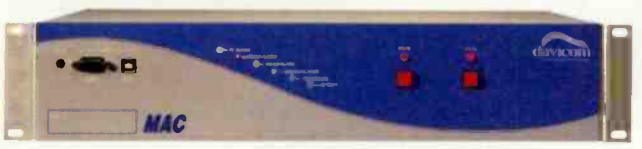
800-334-9640; www.klz.com
Info@klz.com

Radio test set
Aeroflex

3920 Radio Test Set: The 3920 features more test capabilities integrated into one system, as well as extended analysis range and file management functions. The 3920 performs all the tests previously capable with the 3901 and 3902, including Tetra mobile station, base station and direct mode test features. An optional $3^1/_2$ digit DMM function includes the ability to measure AC and DC voltage, current as well as resistance. The 3920 is fully protected against over voltage or current conditions with a front panel fuse. It can export files to USB drives and connect external USB input devices. The 3920 can be used for analyzing high level audio signals including measurements for AF frequency, AF level, sinad, distortion, hum and noise and signal to noise ratio. The 3920 provides RF operation from 10MHz (usable from 100kHz) to 1GHz standard, with OPT058 providing the ability to go to 2.7GHz.

1-800-843-1553; www.aeroflex.com; info-test@aeroflex.com

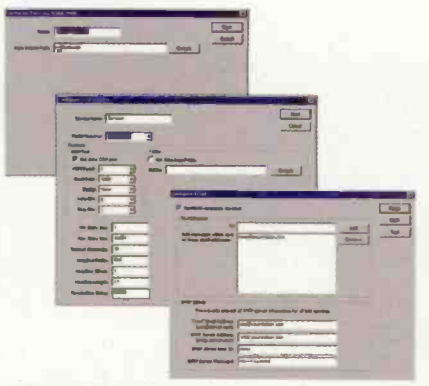
Upgrade to remote control system
Davicom/Comlab Telecommunications



Next Generation Mini-Mac: The newest unit shares many features with its big brother, the MAC, but has a limited number of inputs/outputs (eight metering inputs, 16 status inputs, two audio inputs, eight physical relays and one reach-through serial port), and cannot be expanded. Version 5 of the firmware is daylight-saving time ready for North America, offers bilingual voice and screen capability (supporting Unicode character sets), multiple alarm-call lists (for day/night workshifts, weekends or specific events) and a user-defined log. Configuration and control of Mini-MAC and MAC units is ensured by the included Mac Comm software version 5, which allows customized view screens for each user and site.

418-682-3380; www.davicom.com; info@davicom.com

EAS, Wire Service Capture
Wireready



Alert Ready: This electronic newsroom, EAS alert and wire service capture software allows the user to capture all these events in a personal e-mail account. It stores the needed documentation if the EAS printer fails, and it can also be used to save paper and archive EAS messages. The system runs in the background of any Windows 2000/XP computer. The software generates a warning if planned tests do not occur. One computer can be used to capture and e-mail messages from multiple receivers. Users can automatically publish EAS messages to a website with the Web Ready add-on.

800-833-4459
www.wireready.com
sales@wireready.com

Flash memory audio player
Kowa

PX10: This player is easy to start: Insert a USB drive and play. Users can store audio by dragging and dropping on the PC screen. The graphical vacuum fluorescent display is bright and clear, showing the counter, level meter and content status. Its triangular-shaped aluminum enclosure makes it strong and lightweight. No moving parts, such as cooling fans and hard disks are used. Users can switch among six pages to access up to 300 audio files. Direct mode allows the user to choose any of the clips assigned to any of the 50 hot keys. A preset mode allows continuous looping.

310-327-1913; www.proaudiokowa.com; pxinfo@proaudiokowa.com

Audio patch panels
Panel Authority

Panels: Panel Authority audio patch panels include control and connector panels, stainless and aluminum wall plates, electronic chassis systems, wooden panel mounting systems, aluminum and steel back boxes and panel mounting systems, aluminum rack panels, plain, hinged or vented. Flat or flanged, tapped aluminum rack rails and rack adapters for equipment mounting.

815-838-0488
www.panelauthority.com
preston@panelauthority.com

Messagecasting tool
Broadcast Electronics

TRE Producer: The TRE Producer enables content providers to create, schedule and attach headlines, guest names and other messages relevant to program audio for re-distribution by affiliate stations. Once delivered to stations running BE's TRE Message Manager, the messaging content is automatically interleaved with the affiliate's local text messages for distribution over RBDS, the Web or HD Radio technology.

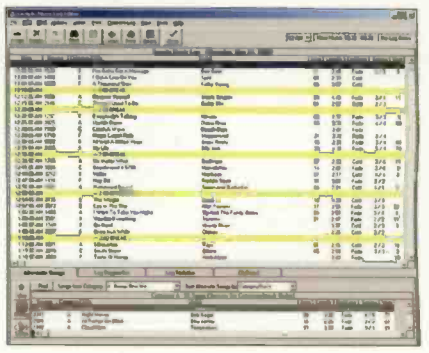
217-224-9600; www.bdcast.com
bdcast@bdcast.com

White exit light LED bulb
Ledtronics

EXL-W series: The EXL-W series white exit light LED bulb is bright, safe and maintenance free. The LED bulbs provide an alternative to the conventional 15T6 or 20T6 incandescent exit sign bulbs. The flame-resistant polycarbonate resin construction of this LED bulb allows for visibility in bright light or smoke. The bulbs offer a solid-state design impervious to shock, vibration, frequent switching and environmental extremes.

800-579-4875; www.ledtronics.com

Traffic scheduling for Windows
Broadcast Software International



Natural Log: Natural Log interfaces traffic logs and billing with a station's radio automation software. Natural Log is compatible with most computer automation systems, and provides multi-event scheduling, dual product-type protection, user-specified spotset fill sequencing and on-screen log diagnostics.

888-BSI-USA1; www.bsiusa.com; info@bsiusa.com

m!ka MICROPHONE AND MONITOR ARMS

Outstanding design - Yellowtec`s new product line for positioning microphones and monitors. m!ka integrates simple and elegant appearance with heavy duty performance.

Combining mic and monitor mounts into one modular system, m!ka helps you restore order to your desktop area.

www.yellowtec.com

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40789 Monheim, Germany
Phone +49-2173-967 315
e-mail: info@yellowtec.com

2007 PRODUCT SOURCE

IP audio codec
APT

Worldcast Eclipse: The Worldcast Eclipse is a multi-interface, multi-algorithm audio codec that offers Ethernet, X.21/V.35 and ISDN ports providing access to a wide range of networks such as IP, leased line, satellite, microwave and dial-up. Broadcasters can also choose from coding algorithms such as standard and enhanced Apt-x, MPEG 1/2 Layer II/III, MPEG 4 AAC, G.711 and G.722. The codec is designed with a DSP-based architecture. Enhanced 16- and 24-bit Apt-x are standard.

800-955-APTX; www.aptx.com; info@aptx.com

Networked audio system
Wheatstone

Evolution 6: The E-6 Surface, the E-series Studio Satellite and the E-series Network Switch combine to achieve a cost effective networked audio system. Each studio operates independently yet can share all the sources and mixes through the E-series Network. Switch without traffic limitations, audio latency or machine control delays. The E-6 Surface features event recall, bus-minus and mix-minus and four aux mixes – all with dedicated talkback systems. The E-6 also has four monitor outputs and standard EQ, dynamics, panning and mic processing on all channels (simultaneously). It supports multiple arrays of programmable input channel and master panel switches for customized functions like phone, intercom, salvos or machine commands.

252-638-7000; www.wheatstone.com; sales@wheatstone.com

Internet satellite receiver
Digital Juke Box

Intersat Receiver: The Internet Satellite Receiver will allow radio stations and private air talent to create their own satellite music format with all legal IDs, magic calls, liners, stopsets and more to be fired at the local station level without a satellite receiver or an audio switcher. CD-quality audio and control signals are received over the Internet, which is played back by the Intersat Receiver software on any Windows XP computer. In addition, if the station should loose its Internet connection, the Intersat Receiver will play music from the local hard drive on that station until the Internet connection is reestablished. No spots will be missed, as the computer will play all scheduled spots as well as liners and the legal ID when called for.

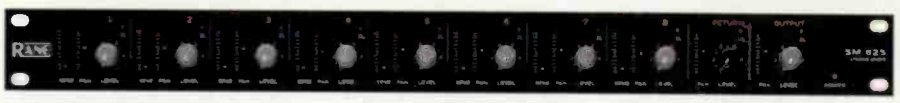
888-ONAIR-99
www.digitaljukebox.com
sales@digitaljukebox.com

Workstation programmable patchbay
Switchcraft

Studiopatch 6425: This audio patchbay has been developed to fit the needs of analog and digital audio workstations. The 6425 connects to I/O interfaces with DB25 cables. It is laid out with four groups of eight channels of TT (Bantam) jacks. Each group of eight has its own in and out DB25. Depending on a studio's normaling requirements, the 6425 has changeable normals by the turn of a flat-head screwdriver. For each of the 32 channels, these normaling positions can be set to full normal, half normal or non-normal modes.

773-792-2700; www.switchcraft.com; sales@switchcraft.com

Stereo line mixer
Rane



SM 825: This stereo, eight-channel mixer occupies 1RU, and provides a rotary input level control, a stereo aux send level control and a balance control slider. Mono inputs are routed to both outputs, and the balance control functions as a pan pot. The aux return section provides a rotary return level control and a slide balance control. Several units can be ganged together using the 1/4" TRS main expand in and out jacks. It features an internal universal power supply.

425-355-6000; www.rane.com; info@rane.com

Microphones
Audio-Technica

Unipoint Series: The re-engineered Unipoint Series includes the Pivot Point connector that allows the cable to exit from either the rear or the bottom of the microphone. This feature is available on most Unipoint boundary mics. In addition, the U891R, U891RW and U891RC boundary mics feature programmable switching plus an LED status indicator. All the mics in the range of hanging, gooseneck, boundary and handheld microphones include Uniguard RFI shielding, interchangeable elements (cardioid, hypercardioid, omnidirectional and cardioid condenser), 80Hz Unisteep filter to reduce unwanted low frequencies, and a two-stage foam windscreen. There are more than 30 new models in the Unipoint line.

330-686-2600
www.audio-technica.com
sales@atus.com

Cellular remote software module
Tieline Technology

3G: A software upgrade for current users, the Commander G3 and I-mix G3 platforms now deliver live nroadcast-quality remotes to the studio via emerging 3G wireless broadband technology. Broadcasters with 3G broadband enabled cell phones can connect from anywhere they can get reliable wireless 3G coverage and deliver FM-quality mono and stereo audio for remote broadcasts. A 3G broadband connection enables data transfer at download speeds of up to 384kb/s and upload speeds of up to 128kb/s.

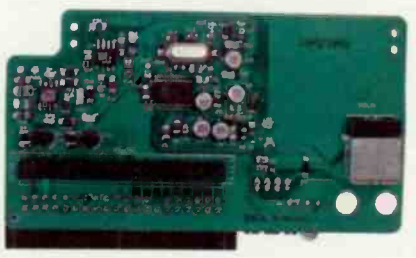
888-211-6989; www.tieline.com; sales@tieline.com

Twisted pair products
RDL (Radio Design Labs)

Format-A: Format-A twisted pair products send, receive and distribute audio via CAT5 cable. Modules are available for mounting in walls, cabinets and racks. Sending and receiving modules are equipped with connectors and terminal blocks for standard -10dBV unbalanced and +4dBu balanced line levels, and standard microphone levels. Format-A uses one pair for power and three pairs for signals. Sending and receiving modules each use one pair, two pairs or all three pairs for audio signals. Single-pair products allow the installer to select which of the three pairs is used to send or receive the signal. Two-pair products are used for stereo audio. Three-pair products send and receive three separate signals, which may comprise three mono signals or microphone plus stereo line signals.

800-281-2683; www.rdlnet.com
sales@rdlnet.com

USB interface
Henry Engineering



USB Adaptor: The USB Adaptor allows Studiodrive to connect to any PC or laptop computer using USB interface. The USB-Studiodrive produces professional quality digital recording and playback on any PC, and eliminates the need for a soundcard. The adaptor is a plug-in circuit board that mates to the Studiodrive mixer unit. It can be installed in about 30 seconds, and can be retrofitted to any Studiodrive system.

626-355-3656; www.henryeng.com
info@henryeng.com

Micro monitors
Edirol

MA-10A, MA-10ABK: The MA-10A, MA-10ABK have 10w + 10w stereo amplifiers, two-way bass-reflex enclosures, RCA input connections, are magnetically-shielded, have a frequency range of 45Hz to 35kHz and a nominal input level of 10dBu.

360-594-4273; www.edirol.com
sales@edirol.com

Overhauling a system
Creative Studio Solutions

Documentation Overhauls: Creative Studio Solutions will send a team of its engineers to a broadcasting facility, where they will trace, re-label and document every wire, connection and piece of equipment. This information will then be entered into studio documentation software, of which the client will receive both a hard copy and CD version. In addition, CSS will make any recommendations regarding the system infrastructure based on their analysis. CSS uses Stardraw Studio documentation software, and a copy of the software is provided to each client at the end of the project.

303-425-5004
www.creativestudiosolutions.com
info@creativestudiosolutions.com

What will you plug into?

"The PR40 is THE BEST mike I have ever used."
-Art Bell, Coast to Coast

"I suddenly realized that my old studio mics had just become overpriced hammers. These Heil mics blew my mind, but left my budget in great shape."
-Dave Hines, KXUS, Clear Channel

"Nobody ever said anything nice about my voice until I started using this (PR 40)."
-Leo Laporte, KFI, The Tech Guy

I just put in some of the Heil PR 40's replacing Neumann's and I have to tell you man, that's the best sounding microphone I have ever heard for broadcast. Sure made a believer out of me.

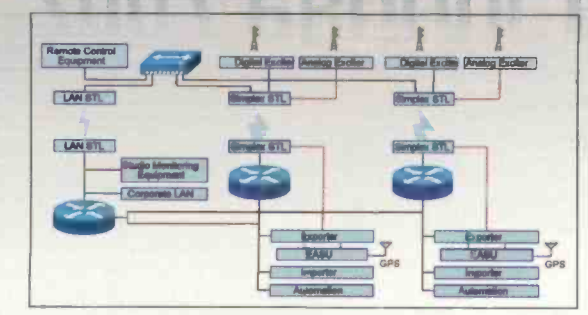
Jay Rose KVEG, Las Vegas

"The Heil PR 30 presents the smoothest and most articulate speech audio from any dynamic microphone I have ever used. Congratulations to the Heil team for bringing large diaphragm dynamics to the marketplace."
-Mike Dorrough, company founder and President,
Dorrough Electronics

HEIL SOUND

www.heilsound.com

2007 PRODUCT SOURCE



2007 PICK HIT

HD Radio STL
Nautel

Reliable HD Transport: This system features Clock Packet Tunneling that arranges clock packets to be sent during times when no data packets are using the STL bandwidth, facilitating a more accurate measurement of the STL throughput delay. Data rebalancing ensures continuous operation without dropout by creating a constant bit-rate stream, reducing instantaneous STL bandwidth requirements. Its automatic E2X start-up sends the initial control packet only once.

207-947-8200; www.nautel.com; info@nautel.com

Grounding wire
Nott Ltd.

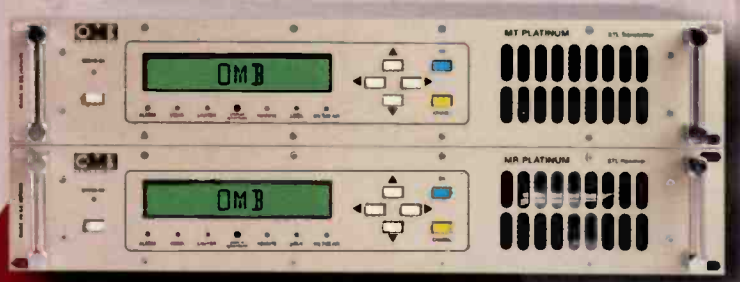
Copperweld: Nott now distributes Copperweld grounding wire. This wire has been used by the electric utility industry for many years and just now comes to broadcasting. Standard Copperweld wire is not annealed, making it very springy to deal with. However, their ground wire is annealed and handles just like pure copper wire. It can also be silver soldered like pure copper. Tests indicate erosion may occur at the ends of buried wires, but will go no more than two wire diameters into the metal. In the case of #10 wire, this is less than 1/4". RF current travels only on the outer surface of a wire due to skin effect, so most of the current will be flowing in the copper skin. Bending it into a sharp radius does not cause the copper skin to crack. Wrap it as tight as you like, then silver-solder it.

800-443-0966
www.nottltd.com
ron@nottltd.com

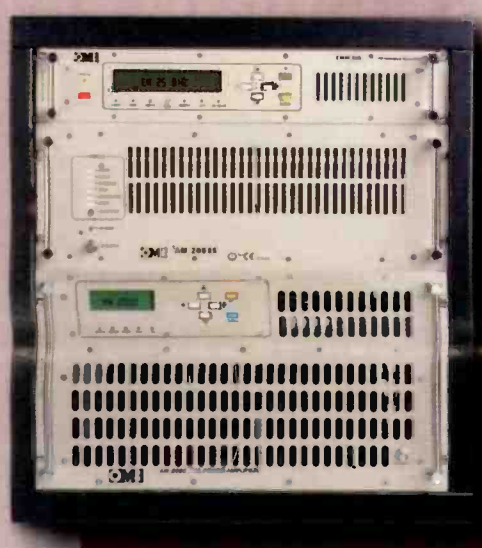
OMB BROADCAST

FM TRANSMITTERS

All transmitter powers with the best quality price ratio



MT/MR PLATINUM >1GHz is a high-performance Studio-to-Transmitter Link. It is made up of the SW MT transmitter externally synthesized in 10MHz sub-bands with a step of 100KHz, and the MR double conversion receiver, that is externally synthesized, too. The MT is microprocessor controlled, and includes LCD display for the visualization of the most relevant transmission parameters (frequency 6-digit), forward and reflected power, modulation level), balanced Mono, Stereo (MPX). The MR receiver has the same visualization system as the transmitter. It includes balanced Mono and Stereo (MPX) outputs. Furthermore, the MT/MR Platinum STL includes a jumper in order to get a proper operation with digital signals.



EM 2000 is a 2000W FM transmitter made up of the EM 25 DIG exciter (or EM 20/30 exciter) and the AM 2000 FM amplifier. AM 2000 includes eight 300W high-efficiency MOSFET technology amplifying modules, fed by 2 independent switching power supplies, which are made to withstand the working conditions. The amplifiying modules work independently thanks to a power combining structure that provides high isolation between them.

EM 10000 is a 10000W FM transmitter made up of the EM 250 COMPACT DIG exciter and three control units which combine the power of six AM 2000 FM amplifiers. AM 2000 includes eight 300W high-efficiency MOSFET technology amplifying modules, fed by 2 independent switching power supplies, which are made to withstand the working conditions. The amplifiying modules works independently thanks to a power combining structure that provides high isolation between them.

www.omb.com

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(305) 477-0974
fax. (305) 477-0611
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OMB EUROPA

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fax. 902-187878
Avda. San Antonio, 41
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50410 Zaragoza, ESPAÑA

From september in:

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teléfono. 902-187878
fax. 902-187878
Pol. Ind. Centrovía C/Paraguay, 6
LA MUELA
50196 Zaragoza, ESPAÑA

Codec
Broadcast Tools

USB Match Tool: The USB Match Tool is a professional USB-to-bi-directional stereo audio codec. It provides professional audio connectivity between the users professional stereo analog equipment and the PC's USB port. The USB Match Tool is equipped with the Burr Brown Delta Sigma 8x over sampled USB codec that will operate with virtually any audio editing, recording or broadcast automation software at sample rates up to 48kHz and up to 16-bit resolution. The front panel is supplied with input and output trimmers along with a stereo LED input level meter. Plug-in Euroblock screw terminals are provided for the electronically balanced stereo input and outputs. The tool is USB powered by a surge protected internal bi-polar 15Vdc switch-mode power supply affording superior headroom and high-definition audio.

877-250-5575
www.broadcasttools.com
bti@broadcasttools.com

Microphone
SE Electronics

SE4: The SE4 mic is a remodeled SE3, but the chassis has been re-engineered to accept two additional interchangeable capsules: a hypercardioid and an omni. Single and matched pairs of mic and capsule sets are available and shipped in a black aluminum, steel-reinforced flight case. All mics ship with a full-suspension shock mount.

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2007 PRODUCT SOURCE

Wireless audio interface
JK Audio

2007 PICK HIT

Daptor Three: Using Bluetooth wireless technology, this interface connects to the user's cell phone like any other Bluetooth-enabled headset. The interface allows balanced and unbalanced connections to a cell phone. It will also connect to other products, such as a laptop, that allows a similar headset connection. Features of the unit include XLR balanced line input and output, and a 9Vdc battery.

800-552-8346; www.jkaudio.com; info@jkaudio.com

Obscenity delay
Eventide

BD600E: The BD600E offers 16 bipolar opto-isolated inputs that may be configured to drive many BD600E functions or as general-purpose delay inputs; 16 open-collector outputs that may be configured to display BD600E status indicators or to pass through delayed versions of the inputs; and an RS-232 output to provide a delayed version of the input for driving a time display or for other control purposes. The BD600E features improved audio performance and expanded obscenity delay capabilities up to 80 seconds. Other features include the exclusive panic function, which stores a .WAV file on a compact flash card to be played when the button is pressed. While the file, which may be a jingle or station ID or any other message, is played, the delay buffer is rebuilding, allowing programming to play as soon as the jingle has completed.

201-641-1200
www.eventide.com
audio@eventide.com

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1200 series
analog console
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digital console
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$6,995 msrp (14 ch)

Analog Consoles

12,000 series
analog console
$4,995 msrp (12 ch)
$6,195 msrp (18 ch)

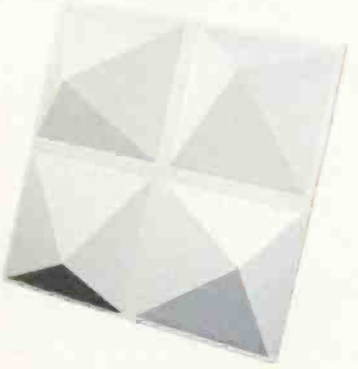
6608 Powell St, Loveland, Colorado 80538

Guest control panels
Logitek

GST-22 and GST-23: These guest control panels accompany Logitek's digital audio router and consoles. The GST-22 panel can be dropped into a table cut-out, contains an amplifier and gain control for one pair of headphones and mic on/off and cough buttons. Medium- or high-impedance headphones can be connected to the front or rear of the unit. Audio input may be selected from a list displayed on the panel's LCD screen. The GST-23 keypad, a tabletop box with six buttons, may be programmed for any desired application including playback machine start and intercom functions. The GST-23 connects to the rear of the GST-22 panel. Both products are powered by a small external supply.

800-231-5870
www.logitekaudio.com
info@logitekaudio.com

Offset pyramidal diffuser
Acoustics First



Quadra Pyramid: The Quadra Pyramid presents a low profile with four pyramids creating sixteen angles of reflection on the surface of a single 2'x2' panel. Mounting is designed for wall or ceiling grid. Fire rating is Class 1 (A).

888-765-2900
www.acousticsfirst.com
info@acousticsfirst.com

Wireless Broadband Internet Remotes

"The first time out with the Tieline was a brilliantly simple experience for everyone involved. For lack of a better phrase, the codec just worked."

- Christian Vang
Chief Engineer
Clear Channel St. Louis

"The codecs sounded great. My management was very, very impressed with the demos"

- Grady Jeffreys,
Technical Manager,
Mackay Communications

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- Mike Rabey
Chief Engineer
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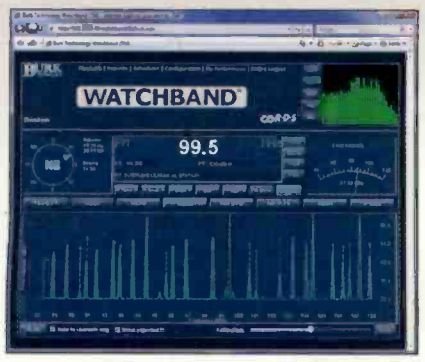
2007 PRODUCT SOURCE

Remote receiver
Burk Technology



2007 PICK A HIT

Watchband: Delivering station and market monitoring tools to managers, engineers and programming departments, this receiver provides stereo, phase and field intensity data, streaming audio and decoded RBDS to any PC with an Internet connection. Broadcasters can record audio streams for remote playback, as well as log audio metrics for review and analysis. Automatic logging routines allow station-to-station comparisons for the entire market. Logged RBDS data reveals content on market stations.

800-255-8090; www.burk.com; sales@burk.com

PC case pullout
Mager Systems

Computer Pull out: This mounting system places the PC in a carriage that completely pulls out of the cabinet or from under a counter top. Once extended, the computer can be rotated 90 degrees in either direction to provide total access to the computer wiring. When installed in a cabinet it is insulated with sound acoustic treatment, baffling and ventilation. The weight limit on the assembly is 300 lbs. The upper and lower pieces are independent of each other so there is no rack height limit. The pullout extension is 22" inches. There is no required clearance for the back, however the depth of the equipment and wiring must be factored into the depth of the cabinet.

623-780-0045; www.magersystems.com; mager@magersystems.com

Multi-stream networked audio processor
Omnia Audio

Omnia 8X: With algorithms modeled after the Omnia.3net, this processor provides eight discrete three-band stereo audio processors in a single, networked box. Its architecture works ahead of any bit-reduced audio coder to reduce artifacts and improve the sound audio destined for HD Radio, Internet and satellite broadcasting. Use it to process headphone feeds where off-air monitoring is not possible; as multi-band level control for remote codecs or on-air telephone systems; to process and send multiple audio streams from a single studio complex to multiple transmitter sites; or on-demand for in-studio musical performances or commercial production applications. The processor uses the Livewire standard over Ethernet.

216-241-3343; www.omniaaudio.com; info@omniaaudio.com

Recording tools for journalists
Technica del Arte

Luci: This software can be loaded on a Pocket PC or Smartphone to provide mpeg recording capability. The screen features large buttons for transport controls, and more than eight hours of recording time is possible with a 256MB memory-card. Product support includes usage if the PDA is lost or damaged by providing a temporary keycode to authorize the software on another device for seven days. The company provides a PHP-script to receive recordings and publish them online immediately.

+31 43 32 19 499; www.technicadelarte.com; sales@technicadelarte.com

Software
Magic Egg Software

Production Order Pro: Organize, track and store production orders, audio files, scripts, and traffic instructions with the industry's first integrated solution for production orders: Production Order Pro by Magic Egg Software.

281-493-4441; www.popro.com
sales@popro.com

Electronics components suppliers
Mouser Electronics

Electronics Components Catalog: Mouser delivers a time-to-market advantage with daily updates and new product additions to its online catalog of 850,000+ products. In addition, Mouser publishes a new 1,900+ page print catalog every 90 days with the newest products added and end-of-life products deleted.

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www.mouser.com
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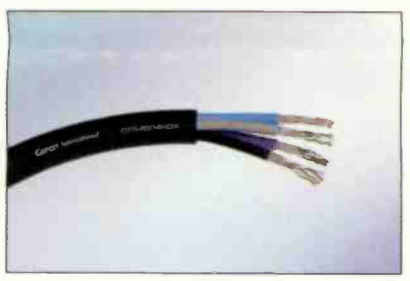
Cat-5 snake cable
Gepco International



CTS4504HDX: This four-channel, heavy-duty Cat-5 snake cable provides four elements of Gepco CT504HDX heavy duty, four-pair Cat-5 UTP cables under an overall jacket. Each element features 24-gauge, solid copper conductors and an inner belt that preserves the critical pair spacing and geometry. For added strength and diameter, each four-pair UTP element has a second TPE jacket that is color-coded for easy identification. The outer jacket is constructed from a rugged TPE compound for durability and flexibility in hostile environments.

800-966-0069; www.gepco.com; gepco@gepco.com

Recorder
Roland

CD-2: The CD-2 records directly to CD or Compact Flash media (2GB capacity) for hours of recording time. Once recorded, audio can be edited, processed and burned to CD. The CD-2 includes a stereo mic or users can plug external mics in via the CD-2s two XLR inputs, complete with phantom power. RCA phono and 1/4" I/O is also provided. A variety of audio effects are available.

800-542-2307
www.rolandus.com

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"Within a short amount of time Omnirax was able to come up with a beautiful concept for our new studios."

"The Omnirax design makes these studios incredible for talent and operators on both sides of the console."

"Our furniture from you not only fit into our budget and timeline, it was very well constructed and looked beautiful. I expect to be outfitting many more facilities with Omnirax..."

"I was impressed with the exceptional care given packaging for shipment. A few very large and potentially fragile components made it cross-country completely unscathed"

"I wholeheartedly recommend Omnirax to everyone."

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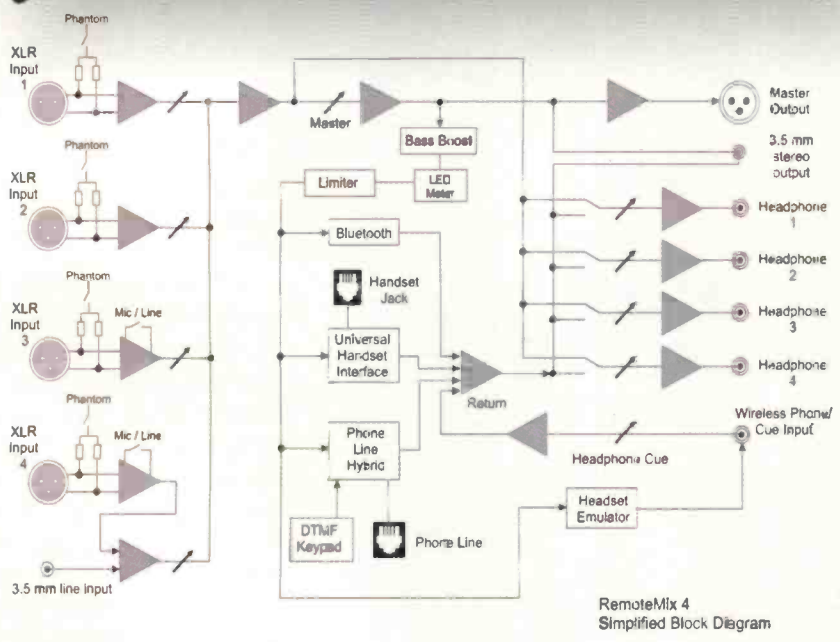
RemoteMix 4

Introducing A Field Mixer That's Outstanding In Its...um...Field



RemoteMix 4
Simplified Block Diagram

Combining a four-channel field mixer with a four-channel headphone amplifier, a phone-line hybrid, a universal PBX handset interface, a wireless phone interface and Bluetooth® Wireless Technology to connect to cell phones and portables, the RemoteMix 4 is ready to work just about anywhere you are.

Use it as a phone-line hybrid, calling into your studio talk show hybrid. Use it as a front end mixer for your POTS, ISDN or IP codec. Or use it as a combination broadcast/IFB mixer. No matter how you use it, you'll find that it's an incredibly versatile mixer.

Plus... IT SOUNDS GREAT! A soft limiter prevents overdriving the phone line interfaces, while the mixer XLR output is pre-limiter (full range), meaning you have a feed for every need. Bass boost adds a bit of low end before sending the signal down the phone line to provide that "how'd you get it to sound THAT good over POTS lines" nudge. There are convenient 3.5 mm send and receive jacks for recording the show or mixing in your MP3 player.

The RemoteMix 4 can be powered by batteries or the included AC adapter, so you'll never lose a connection – even during a loss in power!

We think we've done our homework with RemoteMix 4. And it'll be in your hands in plenty of time for the fall sports season.

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2007 PRODUCT SOURCE

Guy anchor rod
ERI-Electronics Research

2007 PICK HIT

Ultra Guy Anchor Rod: This guy anchor features a port to allow non-destructive ultra-sonic testing of guy anchor integrity, without soil excavation. It's noninvasive because there is no digging and nondestructive because there is no surface damage. No temporary anchors are required. The equipment provides more detail than visual inspection, including detection of stress cracks and internal flaws. The rod is Polyethylene sealed and anticorrsive.

812-925-6000; www.ERIinc.com
sales@ERIinc.com

Codec
Telos Systems

Zephyr/IP: Zephyr/IP uses Agile Connection Technology (ACT) to continuously adapt to network conditions, minimizing the effects of packet loss, varying bandwidth and jitter. ACT's error detection and concealment routines, dynamic buffering and other techniques work together to provide stable IP audio connections. This codec features I/O including AES/EBU, analog and a Livewire Ethernet interface for direct integration with Axia IP-Audio networks as well as LAN, WAN and Wi-fi networks. Other features include studio-grade 24-bit A/D-D/A converters transmission bit rates from 16kb/s to 256kb/s and a Telos-hosted Z/IP Server service for look-up of and connection to other Zephyr/IP users worldwide.

216-241-7225; www.telos-systems.com; telos-info@telos-systems.com

Broadcast Software

1-888-274-2721
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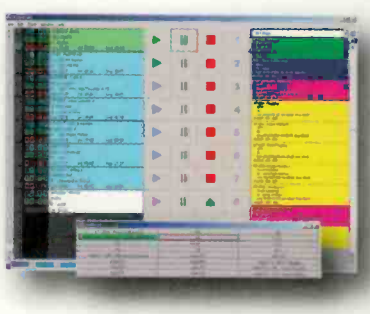
Radio Automation

Simian - radio automation and digital play out system

Instant Audio

Stinger- instant acess to 288 'rapid fire' audio files

Digital Cart Player



WaveCart - the original on-screen cart machine

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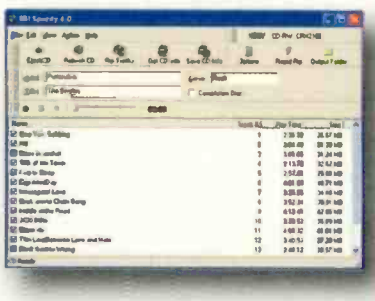

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Trigger & Relay Devices - for GPI/O & remote control

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BSI

Interdigital bandpass filters
Shively Labs

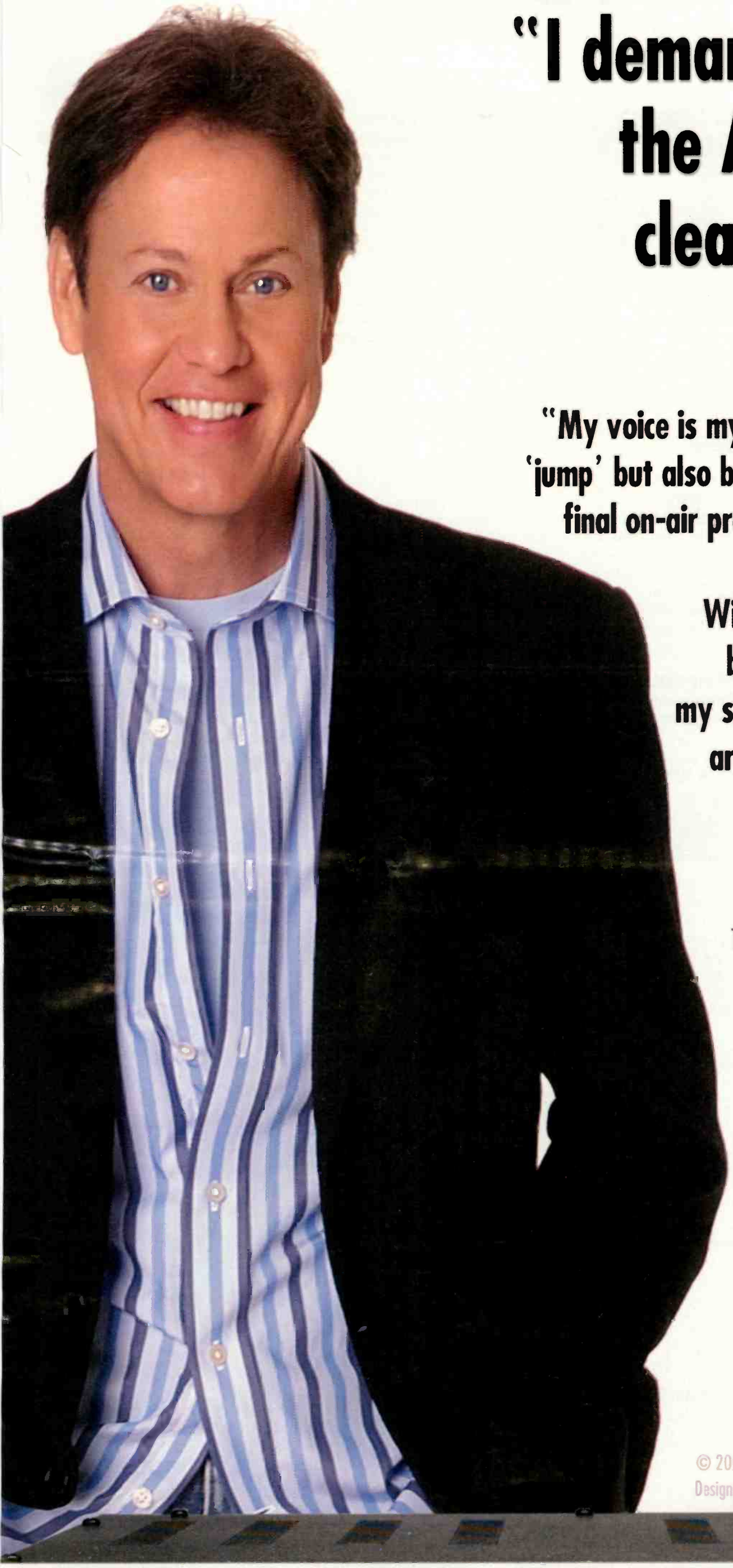
2604, 2612: These interdigital bandpass filters provide filtering in a footprint less than half the size of conventional bandpass filters. The 2604 is designed for use with transmitters up to 2.5kW and the 2612 for transmitters up to 10kW. Both are manufactured for use in HD Radio applications.

888-SHIVELY
www.shively.com
sales@shively.com

Broadcast media database
BIA Financial Network

Media Acces Pro v4.2: The improvements in Media Access Pro™ include information on HD Radio, greater functionality and flexibility in the mapping program, expanded technical information on CP data, the addition of low power FMs, more detailed information on radio station audience levels, and user requested custom reports and searches to create customized reports at the click of a button. Version 4.2 also includes predefined searches for CPs and move-ins so the user can quickly know the number of CPs in a market, identify overlapping signals from competing stations and determine when a CP will be a new move-in to a local market.

703-818-2425
www.bia.com
info@bia.com



"I demand the best... the Aphex 230 is clearly the best." - *Rick Dees*

"My voice is my on air signature. I want it to 'jump' but also be clean, full and natural. Most final on-air processors are cranked to 'stun' and not very kind to voices. With the Aphex voice processor, both my voice and the voice of my sidekick Patti 'Longlegs' Lopez are incredibly open and present, even after going through the station's loudness box."

The Aphex **Model 230 Master Voice Channel** is a combination of proprietary technologies and the highest quality components. Its performance cannot be duplicated by any other product or combination of products, hardware or software, at any price.

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APHEX

www.aphex.com

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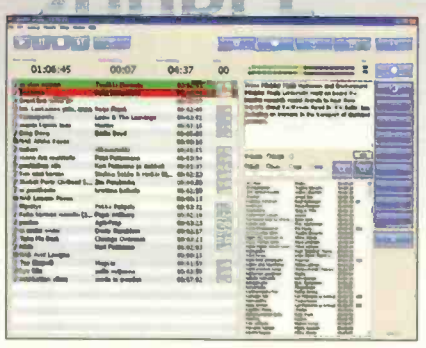
Designed and manufactured in the USA

2007 PRODUCT SOURCE

Play-out and production software
Airshift



Airshift Studio: Designed for radio stations with one to five studios, the software is used for all production-related tasks. Workflow starts with the planning process. The station defines its program schedule for each weekday. The template divides each hour of programming to a segment with various attributes: start and end time, name, type and selected music clock. For daily planning, playlists are created for each program containing all the elements needed: music tracks, sounds and commercials. A third-party system, such as music scheduler or traffic system takes care of the scheduling of commercials. A producer finishes production of one item, then places it in the playlist. The publishing phase is where created content is published to the audience. After the program is published, the content used in it is archived or purged.

+35 8 50 365 0577; www.airshift.tv; sales@airshift.tv

Retrofit adapter
Dialight

2007 PICK HIT

D264: The D264 Series retrofit adapter allows for simple retrofit of a new LED beacon to an existing incandescent base, eliminating the need to fully dismantle the old fixture. Remove the top half of the existing incandescent light and the retrofit adapter securely mounts to the existing hinge. Uses a socket-based electrical interface. Other features include rugged cast design, interfaces with most existing fixtures and reduces retrofit time for an LED beacon to a small fraction of what would be required for a complete fixture removal.

800-835-2870; www.dialight.com; info@dialight.com

Headset with condenser mic
Beyerdynamic

MMX-1: Featuring a closed headphone and cardioid microphone, the unit provides noise cancellation and high-quality speech reproduction, as well as switchable gain of 20dB, which can be activated or deactivated via the PC. No special drivers are required and the MMX-1 can be operated with any standard sound card. The headset has a USB plug and can be connected to each PC via the USB port.

800-293-4463
www.beyerdynamic-usa.com
info@beyerdynamic-usa.com

Turnkey facility
Industrial Acoustics

Modular Studio Systems: The facility includes floating isolation enclosures, electric and HVAC interfaces, integrated lighting systems, integrated tech wiring raceways, interior acoustical treatments and soffits, and interior furnishings. It is all modular, movable and installs in days.

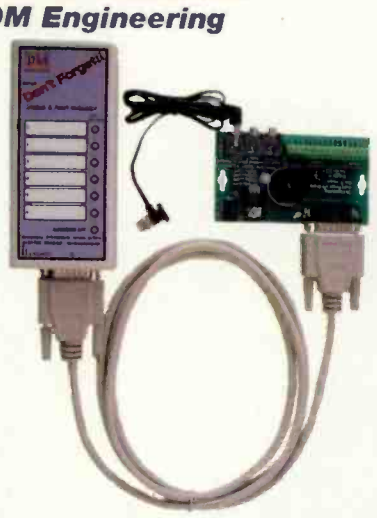
718-931-8000
www.industrialacoustics.com
info@industrialacoustics.com

HD Radio receiver, translator
Fanfare

FP-TRO: With the advent of HD Radio comes the need to provide HD Radio translators and repeaters. Because of the licensing involved with HD Radio, complete demodulation and remodulation of a digital signal can be cost prohibitive. The FP-TRO maintains the signal in the RF domain and converts it to the new frequency, which eliminates the cost of licensing the HD Radio technology used in the translator. The signal is then retransmitted using a Crown Broadcast amplifier.

716-683-5451; www.fanfare.com
custserv@fanfare.com

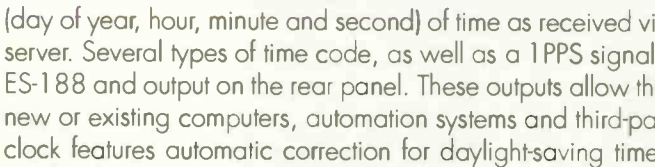
Status reminder
DM Engineering



Don't Forget: Don't Forget monitors tasks such as switching the local-remote switch or shutting the door on the aux transmitter, and remind the user if the selected action is forgotten before he leaves the site. Don't Forget features six jumper selectable inputs for either N.O. or N.C. conditions, three Opto-Probe LED and visible light sensor inputs, LEDs for each monitored input. One Opto-Probe may be used to monitor a selected LED or light source for applications such as local-remote switches, over modulation LEDs or any other light source desired. Magnetic contact switches are also included for doors or panels that must be closed. Don't Forget can also be used as a fault-alerting system and is easily interfaced with a remote control.

800-249-0487
www.dmengineering.com
info@dmengineering.com

Masterclock time code generator
ESE



ES-188: The ES-188 is a 1RU black anodized unit that displays nine digits (day of year, hour, minute and second) of time as received via a user-selected NTP server. Several types of time code, as well as a 1PPS signal are generated by the ES-188 and output on the rear panel. These outputs allow the unit to interface with new or existing computers, automation systems and third-party clock systems. The clock features automatic correction for daylight-saving time and a four-hour battery backup. Options include ASCII NPR time-code output, relay contact closure, 220Vac, 12 to 35Vdc power input and UL-approved power supply.

310-322-2136; www.ese-web.com; ESE@ese-web.com

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Model FMQ30KWC

D/A Series (500 Watt Model)

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800-334-9154 (toll free sales)
+856-728-2020 (International)
www.qei-broadcast.com (web)
qeisales@qei-broadcast.com (e-mail)

Sound card
Digigram

LX6464ES: The LX6464ES combines Digigram's sound card expertise with Ethersound technology. With up to 64 bi-directional PCM linear channels, the LX6464ES is a versatile PCI board that provides an effective way to bridge a wide range of computer audio applications to all channels of a 100Mb/s Ethersound network.

703-875-9100; www.digigram.com
input@digigram.com

OUT AND ABOUT

Useful items to simplify remotes

LXT Lithium-Ion cordless FM/AM radio
Makita

BMR100: LXT Lithium-Ion battery and optimum charging system produces 280 percent total lifetime work with 2x more cycles. It weighs 9.2 lbs, delivers stereo sound from two 3.25" side-firing drivers, is weather-resistant and has a digital backlit display.

800-462-5482; www.makita.com

Hand-held, motorized cable coiler
Kaltman Creations

Cable Coiler: The Cable Coiler offers a fast way to preserve expensive microphone cables. But it's not just for mic cables. It can also be used for lighter weight speaker cable, coax, Cat-5, telephone, fiber optic or rope. Use the high torque motor to coil the cable. Once coiled, just slip the cable off the patent pending spool for instant storage.

678-714-2000
www.kaltmancreationsllc.com
sales@kaltmancreationsllc.com

Portable PA
Yamaha

Stagepas 500: Yamaha's Stagepas 500 portable PA system is a 500W multi-use system that features two-way loudspeakers and a 10-channel stereo-powered mixer. Each speaker contains a 10" woofer and 1" compression driver, driven by a 250W Class D amplifier. The mixer features balanced XLR connectors, mic/line switches and balanced 1/4" jacks, two-band channel EQ and switchable 24-bit digital reverb. The first two channels feature a compressor/limiter switch that controls dynamics on those inputs.

714-522-9000; www.yamaha.com/proaudio
infostation@yamaha.com

9V speakers
Remote Audio

Speak Easy v2: The Speak Easy v2 operates on a single 9V battery for a full day of typical intermittent use. It will also operate from external 9Vdc-15Vdc on its 2.1mm coaxial power connector. The internal battery is switched out of circuit when plugging in external power, so there is no need to remove the battery when using external power. Both the battery and external circuits are protected against reverse polarity.

615-256-3513; www.remoteaudio.com
info@remoteaudio.com

Portable Stereo IP Codec
Comrex

Access Portable Stereo Bric IP Codec: Access Portable is a compact, handheld unit capable of sending mono, stereo or dual mono audio over POTS, DSL, cable, Wi-Fi, 3G Cellular (EVDO/UMTS), satellite and more. Access is also a fully featured POTS codec able to send and receive 15kHz stereo audio on a single POTS line when connecting to another Access. The codec comes with a seven-hour lithium-ion battery with built-in charger and an integrated Card Bus slot for wireless IP cards and modems.

800-237-1776; www.comrex.com
info@comrex.com

Vehicle personalization
Roadmaster USA

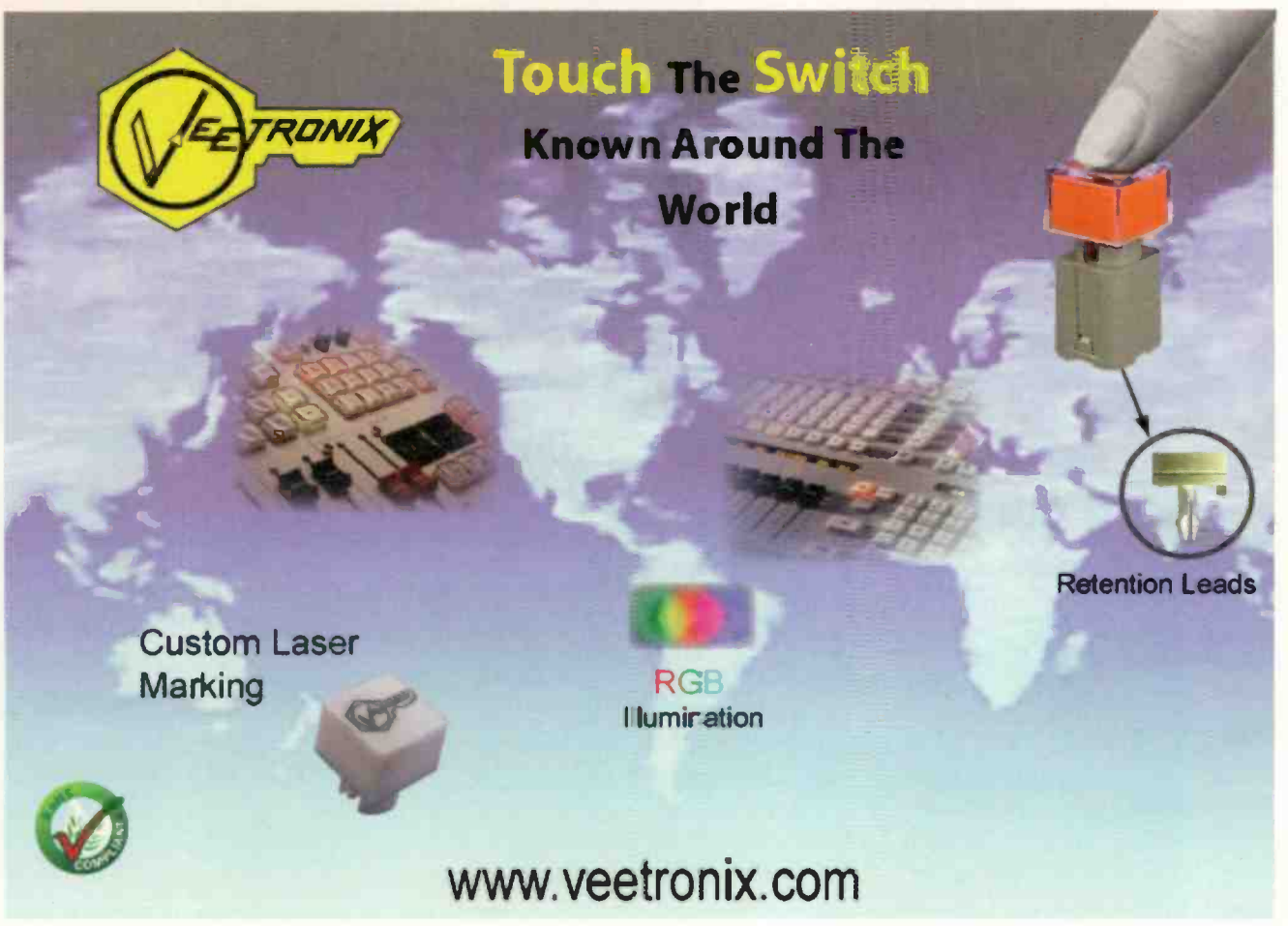
Scrolling Message Systems: The Roadmaster Scrolling Digital License Plate Frame (Model RLPF100) and Scrolling Rear Deck Message System (Model RRDS100) can personalize a vehicle with messages or ads that scroll on the license plate or in the back window. The scrolling systems come with 99 pre-set words and phrases, including "help me," "slow down," "turning left," "your lights aren't working," "baby on board," and also lets the user program five interchangeable messages up to 120 characters each. Messages can be combined or repeated and the speed and brightness of the LED can be adjusted with the included wireless remote.

800-445-1797
www.roadmasterusa.com

Portable broadcast mixer
JK Audio

Remote Mix 4: A four-channel field mixer and headphone amplifier, this unit is a communications interface that features a phone line hybrid and keypad, a PBX handset interface and a 2.5mm cell phone interface. The portable unit is smaller than a lunch box. Use it as a phone line hybrid, calling into the studio talk show hybrid. Use it as a front end mixer for a POTS, ISDN or IP codec. Features include four XLR mic jacks with phantom power, male XLR clean mixer output and four 1/4" headphone jacks with individual source selectors and level controls. The mixer is powered by dual 9V batteries and/or 100-240Vac external ac power supply.

800-552-8346; www.jkaudio.com
info@jkaudio.com



2007 PRODUCT SOURCE

Telephone hybrid and screener system

Thum + Mahr GmbH/Yellowtec

Yellowtec B-line: B-line combines a POTS and ISDN telephone hybrid with an effective call screener for use in talk shows. The audio connections to the mixing console or audio workstation are equipped with balanced studio level and AES/EBU interfaces. The integrated digital signal processing includes echo cancellation, AGC and expander. Plugging in a telephone handset (or headset) allows off-air screening. In ISDN mode, two callers can be managed simultaneously and switched to air independently. Features include GPI/O with programmable relays and TTL inputs and outputs, a DTMF option to initiate calls, sending DTMF tones over existing connections or decoding incoming DTMF tones as well as an RS-232 interface for external control by a PC running Talkmaster software, or for connection of the B-line Keypad.

+49 2173 967 336
www.yellowtec.com; info@thummahr.de

Warning enunciator

Alert System

Alert System: This alert enunciator displays a picture image on a computer monitor. The monitor can be mounted on a wall or a desk. Alert System has 20 screens of picture images. Each of the screens can display a single picture or a picture slide show. A screen is selected by an external closure. A momentary closure switches to the screen the closure occurred. If a continuous closure occurs, the screen that received the closure will remain on until the closure is released. In the event of multiple continuous closures, the screens will rotate in the order of the closures, every five seconds.

817-944-5903

Radio automation application

Mediatron

Radiocube On Air: This system provides support of multiple audio outputs. Multi-format and multi-sampling mixing of these audio formats is possible: MP3, WMA, WAV, MPEG 2, BWF. Users drag and drop from Windows Explorer to the play list. Separate progress bars provide intro/ramp count up/down. The system offers a built-in prelisten player with loop function. The application supports Direct X plug-ins and provides adjustable pitch for audio outputs (±50 percent). A dedicated control panel is available.

+49 89-3715645-0
www.mediatron.com
info@mediatron.com

Break-out panels

RAM Broadcast Systems

BP1X24RJ45, BP2X24RJ45: The BP1X24RJ45 features 1RU, 24 bulkhead feed through CAT-5 RJ-45 modules, one large designation strip and front and rear tie bars. The BP2X24RJ45 features 2RU, two rows of 24 bulkhead feed through CAT-5 RJ-45 modules, two large designation strips, and front and rear tie bars.

800-779-7575
www.ramsyscom.com
sales@ramsyscom.com

Washable keyboard

Unotron

Spillseal S5000K: Spillseal keyboard technology provides protection from liquids and dust rated to standard NEMA4X and IP66. It is washable and easy to disinfect, reducing the spread of germs. It is compatible with Windows 95/98/ME/2000/XP with no extra software or set-up.

800-381-5817; www.unotron.com

Digital/analog silence sensor
Danagger Audio Works

Plan B Classic: Danagger Audio Works has announced a new midrange model of the Plan B dead-air prevention device. The Plan B Classic has special features for network repeater applications. It accepts an external closure to inject local audio from the system's internal DVD drive or Compact Flash card and automatically rejoins the network after a break. Like all Plan B models, the Classic will also detect digital or analog program feed failures and provide continuous replacement audio while notifying station personnel via voice remote control. Users can also call the Plan B Classic to monitor program and backup audio, manipulate relays, monitor status inputs, or make emergency phone-to-air announcements. Danagger has included a monitor amplifier with stereo speakers and a headphone jack in the Plan B Classic's sleek 2RU aluminum rack-mount chassis.

800-888-89AUDIO
www.danagger.com
info@danagger.com

Software
Wirecad

Wirecad XL: WireCAD XL is designed for the small facility. It provides a single database with up to 2,000 cables. There is no limit to the number project systems. The tools are there to create functional and physical blocks. Assign system IDs and number cables.

661-253-4370
www.wirecad.com
sales@wirecad.com

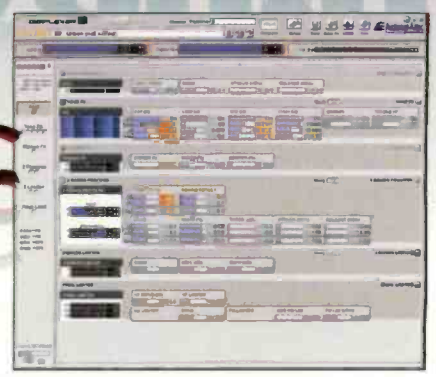
Speakers
SLS Loudspeakers

HT400: The HT400 system is composed of four HT6.5S two-way, full-range bookshelf speakers, one HT6.5C dedicated, full-range center channel speaker and one HT6.5W 150wt powered subwoofer. The HT6.5S provides a frequency response of 42Hz to 25kHz while the HT6.5C provides 48Hz to 25kHz. Both deliver a frequency response through a 6.5-inch paper composite cone, shielded woofer and the signature Neo3 PDR Ribbon push-pull tweeter with a 2.2kHz crossover point. The HT6.5S weighs 24lbs and is rated for 100W RMS and 200W maximum. The HT6.5C weighs 33 lbs and is rated for 150W RMS and 300W maximum. Both units can be mounted on a stand, shelf or by using a Multimound MM-010 system.

417-883-4549
www.slsloudspeakers.com
sales@slsloudspeakers.com

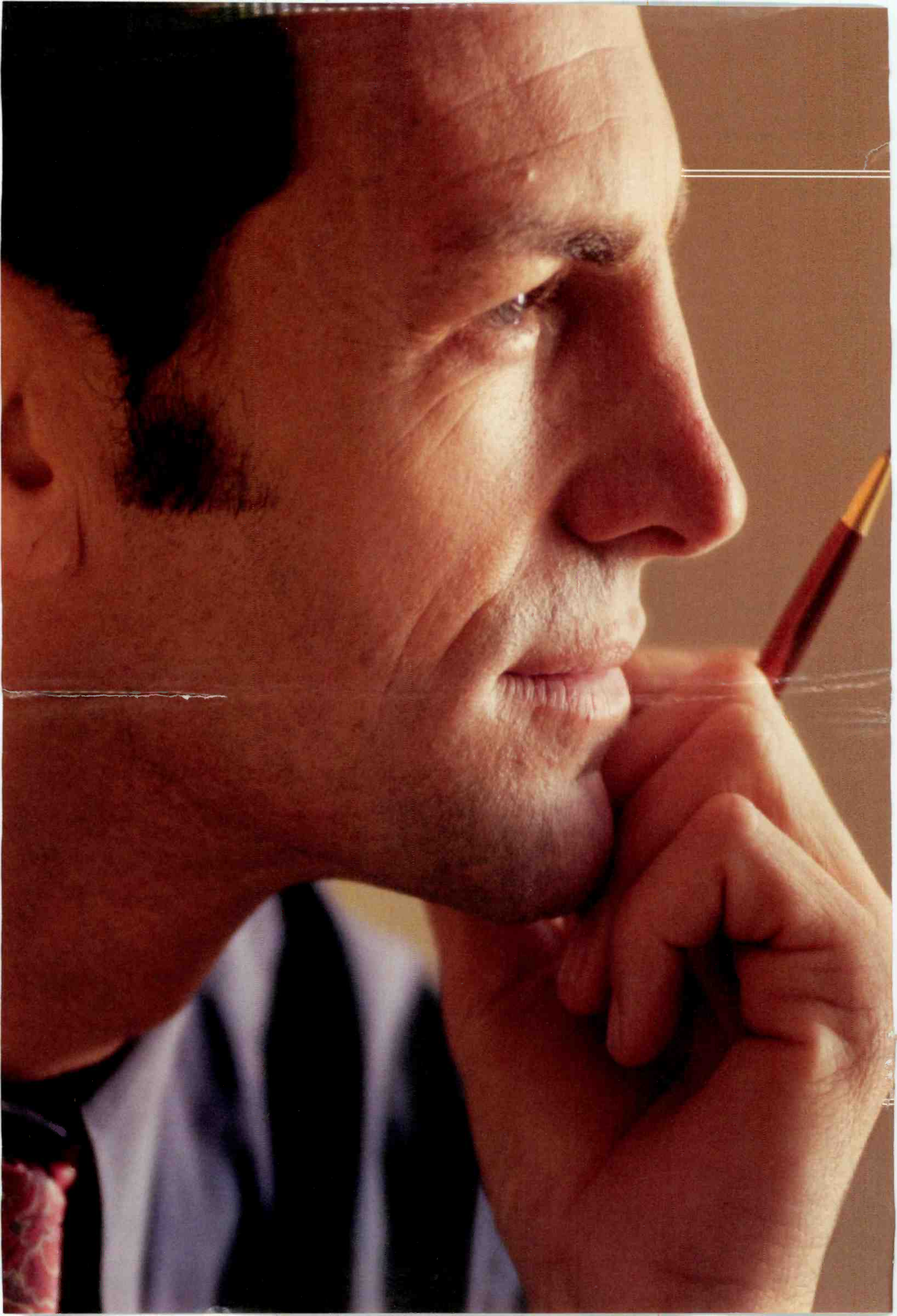
Audio processor
Audemat-Aztec

2007 PICK HIT



Digiplexer 2/4: This processor is also a full RBDS, digital and stereo encoder. It allows I/O remote control and backup audio. The processor uses high-speed DSP to create a stereo signal and radio data messages. With the Ethernet connection and the PC software, configuration is possible from anywhere in the world. The processor features real-time clock for RBDS scheduling, two-band audio processing, 2 giga-flops of DSP power, clippers that run at 1.5MHz, LCD screen and Ethernet, USB and RS-232 ports, all in 1RU.

305-249-3110; www.audemat-aztec.com
contact@audemat-aztec.com



1.818.840.6749 www.sasaudio.com

ANNIVERSARY 1988–2007

Talk is, as they say, cheap. But when a customer like you has something to say, we sit up and pay close attention. To us, that conversation is golden, a precious commodity.

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Mic preamp
Mackie

Onyx 1200F: The Onyx 1200F is a 30-by-34 channel, 24-bit/192kHz-capable FireWire audio/MIDI interface that features 12 of Mackie's flagship Onyx preamps, on-board DSP matrix mixing, an advanced monitoring/headphone control section with four user-assignable headphone outputs, two stereo control room outputs, built-in talkback mic input and remote switching capability. The interface's most innovative feature is an assignable patch bay with advanced DSP capabilities. Users can patch any hardware input, or mix any combination of hardware inputs, to any hardware output. Likewise, any software output can be patched to any hardware destination.

800-898-3211; www.mackie.com; productinfo@mackie.com

Nearfield monitor
Dynaudio Acoustics

BM5P: The BM 5P is a passive nearfield monitor that operates within a frequency response of 50Hz to 21kHz, and is equipped with a 170mm (6.9") woofer and 26mm (1") soft dome tweeter. BM 5P uses pure aluminum for the voice.

+45 87-427000; www.dynaudioacoustics.com

Four channel line mixer
Behringer

MX400: This four-channel line mixer yields high sonic quality at all output levels, with ultra low noise 4580 operational amplifiers. It has the same op amps found in its much bigger units, and is well suited as a sub-mixer. Connect the unit's output to a single input on the main mixer. The mixer features 1/4" TS connectors and input level controls for each channel.

877-672-0816; www.behringer.com; support@behringer.de

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Rack-mount vertical power strips
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Stantron Power Mount: Power Mount systems carry out the basic function of holding power strips in place, while allowing them to be affixed in virtually any location inside the rack. Power Mount systems offer a 180-degree swivel feature to rotate the power strip during maintenance or integration procedures such as cabling and access to power cords. The entire strip can face the front, middle or back of the cabinet. If power demands increase, more power can be easily added. Use of the system improves overall airflow and enhances equipment cooling since cabling can be taken out of the air path.

800-558-7297
www.stantronracks.com

Audio tone generating software
NCH Swift Sound

Tone Generator: The Tone Generator creates audio test tones, sweeps or noise waveforms using a computer or a PDA handheld. Typical applications include test tone generation for level alignment and calibration and quality control checks.

www.nch.com.au; nch@nch.com.au

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North-East: **1-315-623-7655** Jim Peck
South-West: **1-210-775-2725** John Lackness
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*Go to SCMSInc.com for details
HQ in Pineville, NC

Software audio processor
Neural Audio

Neustar SW4.0: This upgrade allows broadcasters to monitor and process multiple digital radio channels HD2, HD3 and HD4 or Internet streams in the same box at a much lower cost per channel than standalone processing, without additional hardware. The NeuStar SW4.0 has been designed to run on any Windows XP computer or server including the HD Importer.

425-814-3200
www.neuralaudio.com
info@neuralaudio.com

PORTABLE PRODUCTS

Handy gadgets for production on the go

Voltage regulator
Furman Sound

AR-15 II: This 15A voltage regulator delivers a stable 120Vac to protect sensitive electronic equipment from damage caused by line voltage irregularities such as sags, brownouts and overvoltages. The AR-15 Series II reduces line noise by filtering and purifying ac power. The AR-15 regulates an input voltage ranging from 97V to 141V to maintain the 120V output. The unit includes Furman's Linear Filtering Technology to reduce noise. The unit hosts eight outlets on the rear panel and one on the front panel and is housed in 1RU. An LED bargraph meter indicates the input voltage, while a separate LED indicates the output voltage cs being within ar acceptable range.

707-763-1010; www.furmansound.com; info@furmansound.com

Field-deployable Cat 5e cable
Belden

Brilliance Catsnake Tactical: Cat 5e UTP cables are AES/EBU-compliant and feature rugged construction. Brilliance CatSnake UTP cables feature Bonded-Pair unshielded twisted pairs with 24 AWG stranded bare copper conductors and polyolefin insulation. To further ensure the durability, portability and re-usability there is a heavy jacket wall version for medium duty use or an upjacketed version for the harshest heavy-duty applications. And, to increase flexibility, the cables offer stranded conductors and matte-finished jackets.

800-BELDEN1; www.belden.com
info@belden.com

Firewire audio interface
Focusrite Audio Engineering

Saffire LE: The Saffire LE has six inputs and eight outputs (including stereo digital I/O) with comprehensive monitoring and I/O control options. The interface comes bundled with a host of software titles, including FXspansion's BFD ultralite and a demo version of GURU, Novation's classic B-Station soft synth and perhaps most notably and Ableton Live 5 Lite. It also comes with 470 megs of royalty-free loops and samples.

516-249-1399; www.focusrite.com

Field recording mic
Avlex

Superlux E531: Featuring a mid-side configuration, battery powered operation and a 3.5mm stereo mini plug that facilitates integration with a wide range of products; the Superlux E531/BCS microphone makes the ideal recording tool for capturing orchestras, choirs, stage or outdoor venues. The microphone has a cardioid polar pattern for its mid section and a figure-eight polar pattern for the side. It offers the recording engineer 90- or 120-degree coverage patterns at the flip of a switch.

877-447-9216; www.avlex.com
sales@avlex.com

Digital hand-held recorder
M-Audio

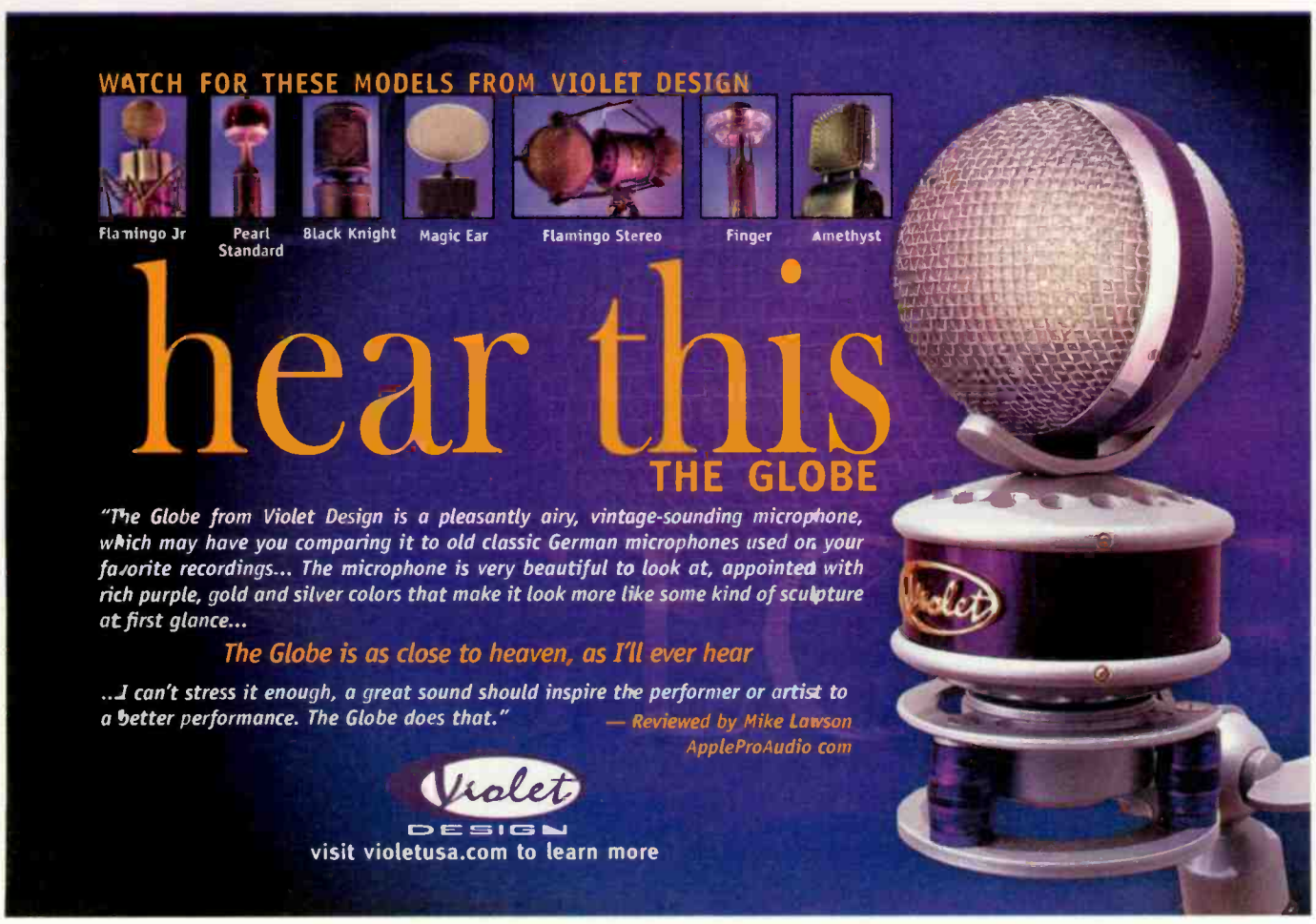
Microtrack 24/96: A two-channel digital recorder that records WAV and MP3 files, the unit stores elements to Compact Flash or microdrives. Balanced 1/4" TRS line inputs and 1/8" mic inputs with phantom-powered mic preamps provide flexible input options. Audio can be exported via S/PDIF digital, RCA analog or USB 2.0. An 1/8" headphone output is included. Power is provided by a lithium-ion battery, and the unit can recharge via the computer's USB connection or USB power adapter.

866-657-6434; www.m-audio.com; sales@m-audio.com

Line-level controller
A-Designs Audio

ATTY2'D: This multi-channel, passive, line-level controller is the big brother of the ATTY stereo passive line-level controller. Housed in a 1RU chassis, the ATTY2'D features two stereo and two mono channels. All four channels have their own individual mute switches and large, cast aluminum, rotary level controls. A single master mute switch is also located in the center of the front panel for fast termination of audio signal to all channels.

818-716-4153
www.adesignsaudio.com
sales@adesignsaudio.com



USB Condenser Mic
Marshall Electronics

MXL USB.008: A low-noise, large-diaphragm condenser mic designed for portable recording, No special software or drivers are needed for this USB plug-and-play mic. It features a large 32mm gold diaphragm capsule, a 20Hz to 20kHz frequency response and a three-position analog gain control. The digital section features a 16-bit Delta Sigma A/D converter with sampling rates of 44.1kHz and 48.1 kHz. The mic ships in a tote bag, which includes a desktop mic stand, stand adaptor, a 10-foot USB cable, windscreen and user's manual.

800-800-6608; www.mxlmics.com
sales@mxlmics.com

PCI sound card
Audio Science

ASI6585: The ASI6585 is designed for use in an Axia Livewire IP-audio based radio broadcast automation system. It uses the Livewire protocol to record and play audio streams over a standard Ethernet network. Providing eight play streams mixed to eight stereo outputs and eight record streams fed from eight stereo inputs, the ASI6585 features Audio Science's anything-to-anywhere mixing and routing. Choose from uncompressed PCM, MPEG Layer 2 and MP3 for recording and playback. Compression is handled by an on-board floating point DSP. DSP-based functionality includes MRXT multi-rate mixing technology that allows streams of different sample-rates and formats to be mixed digitally. TSXT time scaling allows compression/expansion of any or all playback streams in real time with no change in pitch.

302-324-5333; www.audioscience.com; sales@audioscience.com

Server enclosure
Middle Atlantic Products

WMRK: WMRK Series Configured Server Enclosures are manufactured with features that simplify cable, thermal and power management when mounting servers or other data-specific components, and save broadcast integrators valuable time and energy when ordering, installing and servicing components. The enclosures are versatile, full-featured and designed to easily house servers from all of today's leading manufacturers. They are also designed to facilitate passive thermal management with perforated front and split rear doors and a Decora temperature monitoring module for local monitoring; as well as electrical knockouts on rear plates, removable split bottom rear panel, integral gland grommeted cable pass-throughs and a 42-space vertical lacing strip.

973-839-1011; www.middleatlantic.com; sales@middleatlantic.com

VSWR interlock control system
ERI-Electronics Research

VPS-100: The ERI VPS-100 addresses the specific demands of FM master antenna systems requiring multiple contact closures for control. The system provides up to eight simultaneous sets of form C contact closures for multiple transmitter control in the event of an antenna fault. There are also eight form C contact sets available

for individual programming.

The VPS-100 can accept samples from an optional directional coupler interface or from third party monitor systems. Relay interface is through industry standard DB25 connectors. The system is part of a family of products developed in collaboration with BDI that can be interconnected by a common bus structure for communication and control of other devices. Some basic features include programmable strike counter interlock control system, LCD display showing status of events, including time/date stamp, complete front panel control and optional network interface for remote access.

812-925-6000; www.ERIinc.com
sales@ERIinc.com

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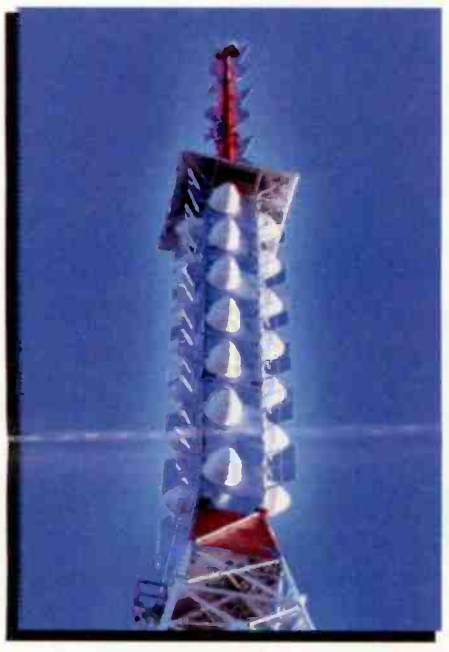

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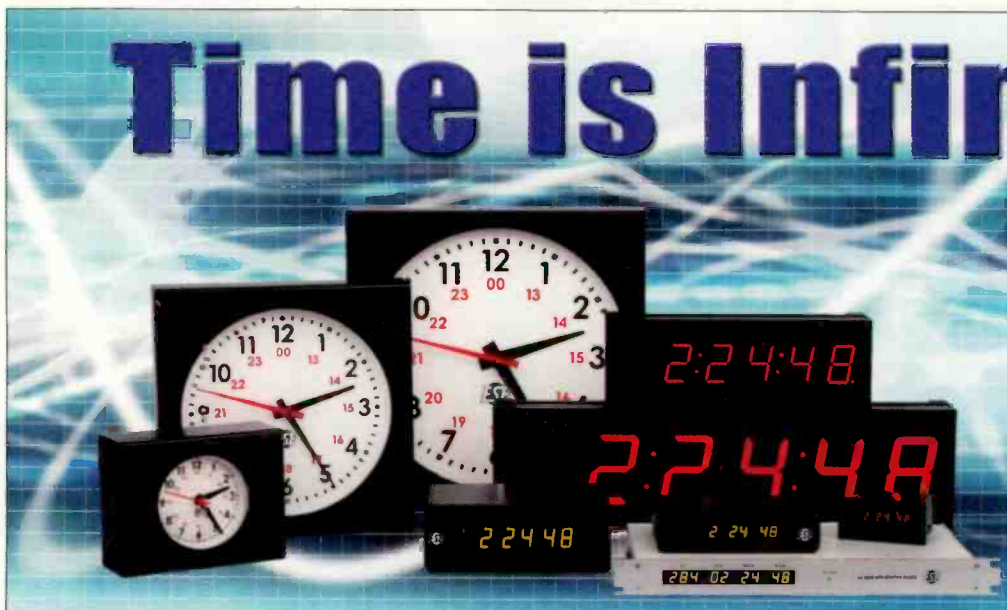

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Streaming module for FM Extra
Orban

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480-403-8300; www.orban.com
sales@orban.com

Acoustic panels
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Equalizer Squares: These innovative Equalizer Squares are specifically designed to focus on the middle to high frequencies found in most modern office environments. They are designed to be easily installed in existing grid systems, or mounted directly to the wall. They effectively diffuse sound from multiple sources and directions.

248-548-8840
www.goldenacoustics.com

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AES/EBU digital audio monitor
Videoquip

DM-1: The DM-1 is a portable monitoring system for AES/EBU digital audio signals. The unit provides a D/A (digital to analog) converter, headphone amplifier and LED display of the incoming sampling frequency (32, 44.1, or 48kHz). Plugging a valid AES/EBU signal into the back of the DM-1 allows headphone monitoring of the signal, with visual status. Any standard headphone from 8 to 600Ω impedance may be used. A front panel level control adjusts the headphone volume.

888-293-1071; www.videoquip.com
vrl@videoquip.com

Head-strap work light
Pelican Products

Heads Up Lite 2670 LED: The HeadsUp Lite 2670 LED is a 0.5W, 4.5V, weather-resistant 4.8oz headlamp that gives off 22 lumens of clean brilliant light for up to eight hours while in constant mode. It has a rear intermittent and constant safety beacon, which can be seen for more than half a mile at dusk and flash for more than 20 hours.

800-473-5422; www.pelican.com
sales@pelican.com

Spectrum analyzer, monitor
Winradio

WR-G33WSM: A high-performance, low-cost receiver and spectrum analyzer developed for wireless mics and other wireless audio devices. The receiver's frequency range covers all standard wireless mic and other VHF/UHF frequencies used in audio production, including the FM broadcast band and point-to-point communications. Highly sensitive, easy to interface with standard laptops and PCs and optimized to work with short VHF/UHF antennas, the receiver is also simple to install and intuitive to use. The scanning function maps the radio spectrum environment of a particular location to determine available frequencies and allocate wireless mics to the available channels. The entire spectrum environment of each venue can be saved and recalled later, to save time during the next visit. The receiver connects to a PC via the supplied USB cable. The frequency range is: 30Hz to 1,000Hz. It operates on 12Vdc at 600mA.

+61 3 9568 2568
www.winradio.com
helpdesk@winradio.com

Reusable label dispenser
Dymo

Rhino 101: The Rhino 101 reusable label dispenser is a refillable, hand-held labeling tool that provides tape, pen, writing surface and cutter into one. While electronic label printing is a fast-growing segment of the market, traditional pen-and-tape labeling remains the method of choice for some, as well as a viable means of temporary labeling in the rough-in phase of installations. The Rhino 101 is available in two packages, one for wire and cable marking (contains self-laminating die cut vinyl labels) and one for general purpose marking (contains continuous flexible nylon labels). It features a large window for writing and viewing, a belt clip and lanyard hook and thumb-driven label advance.

800-426-7827; global.dymo.com

Cable protector
Yellow Jacket

AMS: The Yellow Jacket Advanced Modular System (AMS) is a cable protector system designed to grow with a user's needs. The system interfaces with a broad range of existing cable protector systems. Simply add more center sections to protect an additional 5, 50 or more cables, lines or hoses.

626-357-7051
www.yjams.com
sales@yjams.com

Power distribution unit
BMF Power

Value Line: Available in eight, 10- or 12-socket configurations, these ac line filters include two- and four-pole EMI noise filtering and provide protection from destructive power line surges. All models include a lighted on/off power switch and resettable circuit breaker. Versions are rated for 15A and 20A capacities with NEMA sockets mounted in a horizontal position to accommodate wall plug-style adapters without blocking the adjacent sockets.

781-792-2720
www.bmfpower.com

Ipod rackmount docking station
Raxxess

RXS-IRDS, RXS-IRDS2: This Ipod rackmount docking system is a push/push system: open the docking platform and dock the Ipod. The platform closes for a sleek rack appearance. The in-rack IRDS station provides Firewire, USB and audio outputs, and is compatible with all Ipod, Ipod Mini and Ipod Nano products.

800-389-RAXX; www.raxxess.com; info@raxxess.com

Cable pulling tool
West Industries

Laserline: Equipped with a laser sighting device, Laserline installs a pull line up to 120' through web trusses, across suspended ceiling systems, under sub-flooring or through any limited access areas. Once a route has been established, aim the Laserline's laser sight at the proposed path for the installation and pull the trigger. A soft projectile pulls a nylon pull line up to 120' to the destination. The unit is machined from aircraft aluminum with an anodized finish. The kit includes CO2 cartridges, 17lb. nylon pull line, nylon darts with a foam tip and a carrying case.

651-458-1500; www.thelaserline.com; info@thelaserline.com

Sign-making software
K-Sun

Maxisign v2: Maxisigns V.2 from K-Sun Corporation allows users to design and print professional OSHA mandated and ANSI/ISO compliant safety signs and tags with any PC compatible desktop printer. Enhancements, such as Homeland Security signs and symbols, add to the wide library of safety pictographs, ergonomic, AED and recycling symbols, lockout/tagout formats, IMO signs and ANSI/ISO symbols. Each sign can now be translated into Spanish or Canadian French with the click of a mouse button.

800-622-6312; www.ksun.com; info@ksun.com

2007 PRODUCT SOURCE

RF testing equipment
Bird Electronic

Calibrated Mismatched Load line: Bird's Calibrated Mismatched Loads have high-quality, robust construction, dependable performance and conservative power ratings. The use of non-magnetic materials and plating in Bird products provides safety when used in high magnetic fields, such as MRI. Other product benefits include calibrated VSWR mismatch and multi-octave bandwidth. Bird's load products also deliver more standard VSWR Mismatch values, including 1.10:1, 1.20:1, 1.25:1, 1.30:1, 1.50:1, 1.75:1, 2.00:1, 2.50:1, 3.00:1, 4.00:1 and 5.00:1. The frequency range across the entire series is DC to 1000MHz with N male or female connectors as standard. Bird offers Calibrated Mismatched Loads products in models 2-T-MN-(1R10, 25, 30, 50, 75; 2R00; 3R00).

866-695-4569; www.bird-technologies.com; sales@bird-technologies.com

Digital recording studio
Korg

D3200: The D3200 provides unique professional features and studio quality audio. Up to 12 tracks can be recorded at once, allowing a complete prooduction to be recorded in a single pass. The D3200 provides up to 32 tracks of digital audio playback at 16- or 24-bit resolution at sample rates of either 44.1 or 48kHz. The D3200 features a flexible 12-bus, 44-channel mixer with up to 69-bit internal processing resolution for incomparable audio quality. Automated mixing lets users record and play back fader, pan and other mixer events. In addition, 100 scene memories provide finely detailed snapshot automation. Eleven 56-bit effects are available simultaneously, utilizing 52 algorithms, including Korg's proprietary REMS modeling technology. 128 preset programs and 128 user locations are provided, as well as an additional 32 user programs within each song. All effects can be easily tweaked and edited using the Knob Matrix.

631-390-6500; www.korg.com

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Fremont, CA 94539
510-656-8766
510-657-7283 (fax)

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Email: sales@DaytonIndustrial.com WebSite: www.DaytonIndustrial.com

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Modulation monitor
Day Sequerra

M2.2R: Based on the popular M2.0, the M2.2R gives broadcasters additional tools to monitor and alarm their HD Radio broadcast transmissions. In addition to the original M2.0 model's basic capabilities, the M2.2R includes six programmable dry, floating alarm relays, RBDS and RF Multipath displays, full FM analog component monitoring including SCA and pilot injection levels and AM noise, a multiplex output for external SCA decoders, Ethernet interface for streaming PAD data or remote control, and Day Sequerra's Remote Dashboard software program, which lets broadcasters remotely tune the unit, alarm key signal parameters and log their data. The new M2.2R also features full time digital audio output, even when tuned to an analog station. The company has rolled their PLM (Performance Loss Module) Option into the M2.2R. This technology employs proprietary heuristic algorithms, which cannot be fooled by pink noise or tones, and will generate alarms when real program silence is detected in HD Radio or analog broadcasts. The M2.2R can also trigger an alarm on loss of RF Carrier, Audio, OFDM Lock, RBDS Stream, PAD Stream.

856-719-9900; www.daysequerra.com; info@daysequerra.com

Coaxial Transfer Switch
Myat

301-180-X series: This series offers high isolation and low VSWR across all the broadcast frequency bands. The precision fit silver-plated and tellurium copper current paths ensure maximum power handling capacity, low loss and long service life. The series can be configurec for 120Vac or 240Vac. The control can be 12Vdc or 24Vdc. In case of power loss, the switch will remain in position once power is restored. There is also a manual override that can be performed when ac power is disconnected.

201-767-5380
www.myat.com; sales@myat.com

Pencil condenser microphone
Samson Technologies

CL2: The CL2s are true capacitor microphones that feature a high pass filter and 10dB pad. The mic ships with both cardioid and omni removable elements featuring three micron, gold-sputtered diaphragms with maximum SPLs of 141 and 138dB respectively. The CL2 is ideal for recording or miking orchestral instruments, acoustic guitar, piano, overhead miking of drums and cymbals, vocals and choirs. The mic comes in a durable, lightweight aluminum case with a clip, pop filter, windscreen, shockmount, XLR cable, and the cardioid and omni capsules.

631-784-2200
www.samsontech.com
info@samsontech.com

Analog mixers
Mackie

Onyx 1220, 1620 and 1640: Mackie's Onyx 1220, 1620 and 1640 premium analog mixers incorporate extremely low-noise microphone preamps and circuitry, tremendous durability, many direct instrument inputs with a FireWire option for integration into any computer-based system. They also feature an all-new EQ circuit. Three small-format mixers make up the Onyx line. The Onyx 1220 is a 12-channel (4 mic/line inputs and eight line inputs) mixer with two buses and a three-band Perkins EQ with sweepable midrange. The Onyx 1620 is a 16-channel (8 mic/line inputs and four stereo line inputs) mixer with two buses and a four-band Perkins EQ with dual sweepable midrange. The Onyx 1640 is a 16-channel (16 mono mic/line inputs) mixer with four buses and a four-band Perkins EQ with dual sweepable midrange.

800-898-3211; www.mackie.com; productinfo@mackie.com

Audio processing tool
Symetrix

Deuce 722: The Deuce 722 is designed to solve numerous everyday audio-processing problems. Featuring two inputs and outputs (on XLR and Euroblock connectors), it contains microphone pre-amplification (featuring a That front-end with true +48V phantom power), compression, split-band compression, downward expansion, gating, de-essing, AGC, ambient noise compensation, feedback elimination, equalization, mixing, stereo width and balance, delay and more within a single rack space.

425-787-3222; www.symetrixaudio.com; sales@airtoolsaudio.com

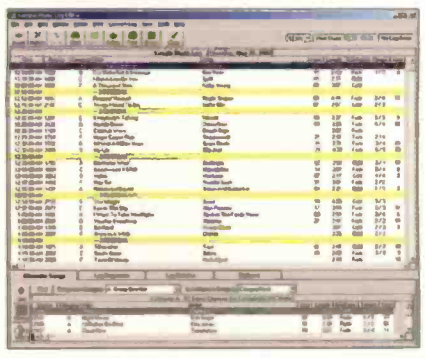
Talkshow system
Telos Systems

Nx12: The Nx12 provides support for POTS, ISDN and Livewire audio-over-IP technology. This is a self-contained, 12-line system that includes four hybrids. Available with analog or AES inputs/outputs, the system mixes callers down to two separate analog or AES feeds when the built-in outputs are used. Four hybrids remain present. The system includes echo cancellation for VoIP and cell phone callers. With two program-on-hold inputs and two analog or AES outputs, the system is capable of handling the telephone requirements for two stations simultaneously.

2007 PICK HIT

216-241-7225; www.telos-systems.com; telos-info@telos-systems.com

Music scheduling software
Broadcast Software International



Natural Music: Natural Music maintains music library databases, generates daily music logs according to pre-set rules and includes interfaces for most computer automation systems. Natural Music features a virtually unlimited number of songs in the library, 1,225 different music categories, drag-and-drop music-log editing, day part and hour circulation rules, including horizontal separation, and an audit log for troubleshooting.

888-BSI-USA1; www.bsiusa.com
info@bsiusa.com

Acoustic panels
Realtraps

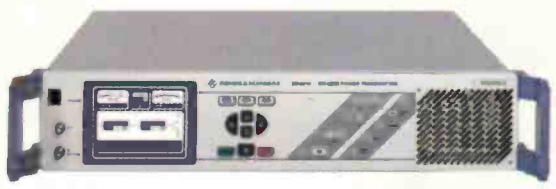
Corner Mondotrap, Tri-Corner, RFZ: The new Corner Mondotrap is similar to a standard Mondotrap at four inches deep but with beveled sides to nest attractively in a corner and appears only one inch deep. All other dimensions and properties are the same as a standard Mondotrap. The Realtraps Tri-Corner is a triangle-shaped bass trap, also four inches thick, that fits perfectly in tri-corners where two walls meet the ceiling or floor. Like the Corner Mondotrap, the new Tri-Corner appears only 1" thick when installed. At 32" on each side, it has a surface area large enough to tame even very low bass frequencies.

860-210-1870; www.realtraps.com; sales@realtraps.com

Tube transmitter
Harris

HT/HD+: This transmitter, which evolved from the technology of Harris' HT Series of FM transmitters, marks Harris' foray into the HD Radio market with high-power tube-type transmitters. The transmitter will be outfitted with a Flexstar HDX exciter as part of the system. When used with a Flexstar, the transmitter features RTAC digital precorrection to correct the tetrode tube used in the Harris HT Series of FM transmitters.

800-622-0022
www.broadcast.harris.com; broadcast@harris.com



FM transmitter
Rohde & Schwarz

SR8000: This transmitter is equipped with a digital exciter, provides output power from 100W to 1kW. The digital exciter combines the specs of the analog exciters from the company with the reliability of modern digital signal processing. Due to their compact design, the transmitter occupies a maximum of four height units. All functions are integrated in one box; single frequency network operation is possible.

410-910-7800; www.rohde-schwarz.com; info@rsa.rohde-schwarz.com

Newsroom production
RCS

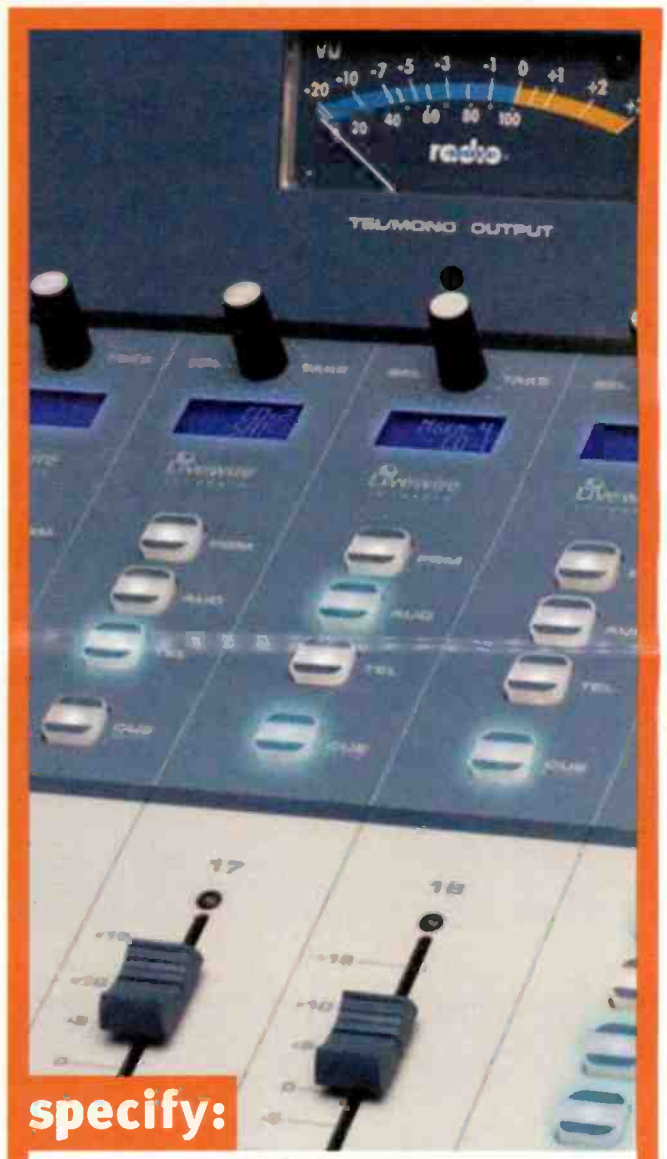
Prophet Newsgen 1.6: This stand-alone newsroom software enables reporters to write newscasts, receive and manipulate wire copy and digitally record, edit and playback audio. This upgraded version includes the added ability to ingest wire services via IP, flexibility to run the News Feeder service on multiple CPUs, moving a media file or story to a new category will update the erase date to reflect the new category's settings, added created date, created user, length and media length columns to the story library, modified e-mail format to send as blind carbon copy, and time and date are now displayed based on regional settings.

914-428-4600; www.rcsworks.com
info@rcsworks.com

Facility monitor
Flash Technology

FTW171, FTW172: The 171 provides an inexpensive method of monitoring a facility. The 172 includes additional features that allow the user to gather more detailed information through Flash Technology's proprietary Eagle system. The units provide real-time data that helps owners make informed decisions regarding performance and maintenance issues. The equipment can monitor and manage non-IT-based equipment such as HVAC units, back-up generators, security access, exterior lighting and cooling systems.

615-503-2000; www.flashtechnology.com



2007 PRODUCT SOURCE

Transmitter
Crown Broadcast

FM600E, FM600R, FM600T: The FM150 broadcast transmitter offers a frequency agile front panel, SWR metering from remote control and the ability to control output power from a remote control. The FM600 is available in three configurations: The FM600E is a basic exciter with composite input only. The FM600T is a good choice for the lower power broadcaster, with its built-in audio processor and stereo generator. The 20 percent upgrade in power over the company's previous FM500 allows the end user to accommodate date line loss without upgrading to the next higher power Crown unit. The FM600R is the translator option with built-in receiver. With low-loss circuit boards and copper heat spreaders in the RF chain, the unit functions with less heat and improved life span. A robust power supply with switching voltage and power regulators for ac or dc operation allows the FM600 to be used anywhere power can be generated.

800-262-8919
www.crownbroadcast.com; fmsales@irecl.com

Intercom monitor, talk panel
Sierra Automated Systems

2007 PICK HIT

ICM-32: Designed for a variety of broadcast communications, the monitor features 32 separate talk/listen channels, each with a two-line/eight-character VFD display; dial-up listen and talk of any router system source or destination; and mixing of multiple sources for listen with independent volume control adjustment. Connectivity is via Internet, local LAN or directly to the SAS 32KD.

818-840-6749; www.sasaudio.com; sales@sasaudio.com

Codec
Broadcast Tools

USB Match Tool: The USB Match Tool is a professional USB-to-bi-directional stereo audio codec. It provides professional audio connectivity between the users professional stereo analog equipment and the PC's USB port. The USB Match Tool is equipped with the Burr Brown Delta Sigma 8x over sampled USB codec that will operate with virtually any audio editing, recording or broadcast automation software at sample rates up to 48kHz and up to 16-bit resolution. The front panel is supplied with input and output trimmers along with a stereo LED input level meter. Plug-in Euroblock screw terminals are provided for the electronically balanced stereo input and outputs. The tool is USB powered by a surge protected internal bi-polar 15Vdc switch-mode power supply affording superior headroom and high-definition audio.

877-250-5575
www.broadcasttools.com
bti@broadcasttools.com

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Desktop Script Board
RAM Broadcast Systems

ASB-24-4, ASB-24-12, SB-4, SB-12: These boards feature articulating or stationary mounting arms, adjustable pan and tilt, a 24" reach, bolt-through desk assembly, and a slim profile. Six-foot extensions are available. The boards are supplied with 4" or 12" risers. The equipment comes in several colors: red, blue, orange, green, yellow and smoke gray.

800-779-7575; www.ramsyscom.com
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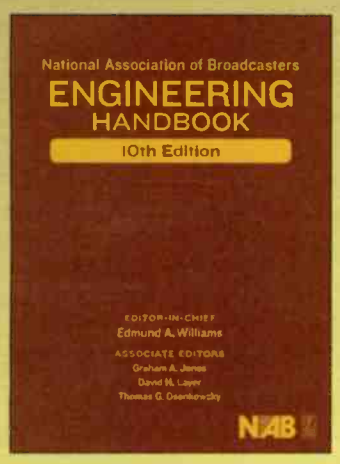
Nonpenetrating roof mount
Patriot Antenna Systems

Roof mount: The non-penetrating mount is a single or dual tray design and fits both 2" and 2 3/8" fittings. Turning over the center mast allows the switching from one size to another. One side of the mast will accommodate a 2" Az/El cap and the other side will accommodate a 2 3/8" Az/El cap. Assembly is easy and goes together like the previous single-tray models.

800-470-3510; www.sepatriot.com
info@sepatriot.com

REFERENCE ROOM

Selections for your bookshelf reference



Reference book
National Association of Broadcasters

***Engineering Handbook*, 10th Edition:** The NAB *Engineering Handbook* provides detailed information on virtually every aspect of the broadcast chain, from news gathering, program production and postproduction through master control and distribution links to transmission, antennas, RF propagation, cable and satellite. Hot topics covered include HD Radio, HDTV, 2GHz broadcast auxiliary services, EAS, workflow, metadata, digital asset management, advanced video and audio compression, audio and video over IP, and Internet broadcasting. Basic principles and the latest technologies and issues are all addressed by respected professionals with first-hand experience in the broadcast industry and manufacturing.

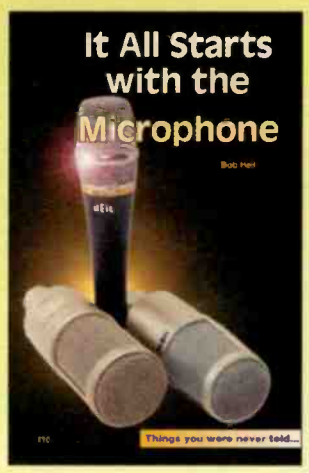
Station planning and design book
Elsevier/Focal Press

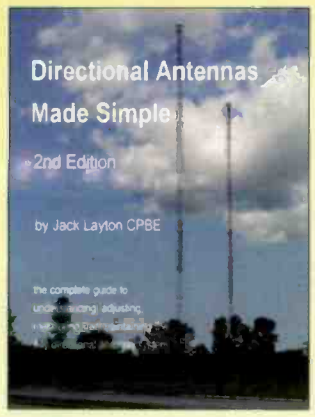
A Face for Radio: This book explains in easy-to-comprehend language the basic concepts of applicable architectural and interior design elements as guidelines for space planning; building infrastructure; layout schemes for offices and technical facilities; colors, materials, and finishes; lighting and scheduling. The book includes images and plans from leading radio broadcasting facility designers in the U.S. and overseas, budgets and construction schedules for a variety of typical projects, and guidelines to follow for flexible programs that apply to radio stations of all sizes, from major market network affiliates to small independents.

Literature
Heil Sound

It All Starts with the Microphone: This primer on mics covers technical aspects to applications and tips that Bob Heil has mastered over his 40 years in professional sound reinforcement and microphone design.

www.heilsound.com



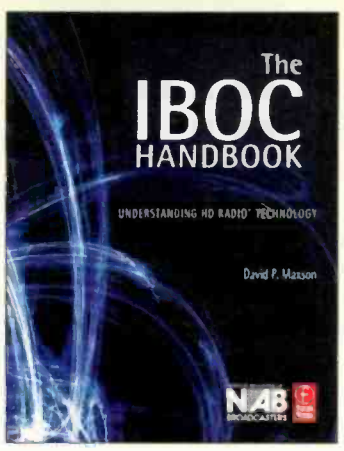


Directional antenna book
Layton Technical Services

Directional Antennas Made Simple: The first edition of *Directional Antennas Made Simple* was published in 1996. The second edition builds on the foundation of the first by reflecting current FCC Rules regulating these systems, containing additional material suggested by readers of the first edition and having an additional chapter examining and explaining solutions to unusual RF problems encountered in AM radio facilities.

724-942-4054

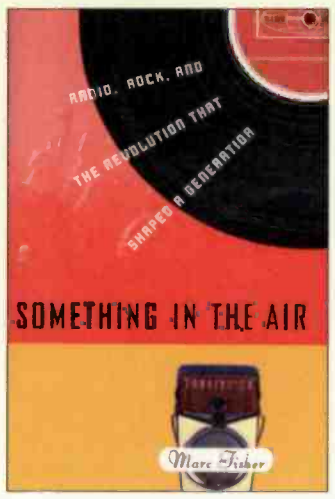
Digital radio reference
Elsevier/Focal Press



The IBOC Handbook: This book outlines the entire digital transmission system for HD Radio. It includes system equations presented in a useful way that retain a clear description of the systems. Included is a history of the technology and the NRSC-5 standard.

Radio history book
Random House

Something in the Air: *Radio, Rock, and the Revolution that Shaped a Generation* is a look at how old media adapts when new media comes along, as well as a trip back to the heyday of Top-40 radio. Marc Fisher, award-winning journalist, Pulitzer Prize finalist and columnist for *The Washington Post*, captures the soul of radio and how it helped shape American culture–the culture which it no longer holds the imagination of–and what the future holds.



Unless noted, these books are available through most book outlets, including the SBE and NAB bookstores.

2007 PRODUCT SOURCE

Monitoring system and subwoofer

Genelec

8020A, 7050B LSE: The 8020A has been designed for monitoring in difficult listening environments, particularly those characterized by lack of space. The 8020A has a die-cast aluminum Minimum Diffraction Enclosure, which features large internal volumes, curved edges and mechanical strength. Each monitor features a 4" bass driver along with a 3/4" tweeter loaded into a new Genelec advanced Directivity Control Waveguide. The free field frequency response is 66Hz to 20kHz (±2.5dB). Maximum peak SPL output per pair with music material is 105dB. Bass and treble drivers are each powered by 20W amplifiers. The 7050B subwoofer is a partner to the 8020A for both stereo and surround applications. The 7050B extends the LF response down to 25Hz. This is made possible in such a compact enclosure, thanks to Genelec's patented Laminar Spiral Enclosure (LSE) technology. The 7050B is designed to complement Genelec's 8020A active monitors in stereo and surround applications, and the 8030A in a stereo

508-652-0900; www.genelecusa.com; genelec.usa@genelec.com

CD/DVD printer

Microboards Technology

PF-2: The PF-2 is a high volume disc printer that helps users create discs at a high speed and with a low cost-per-disc without outsourcing production. The printer is capable of printing 100 discs along with a spindled-output for improved stacking and handling, while still continuing with the ability to print 16.7 million colors at up to 4800 dpi resolution.

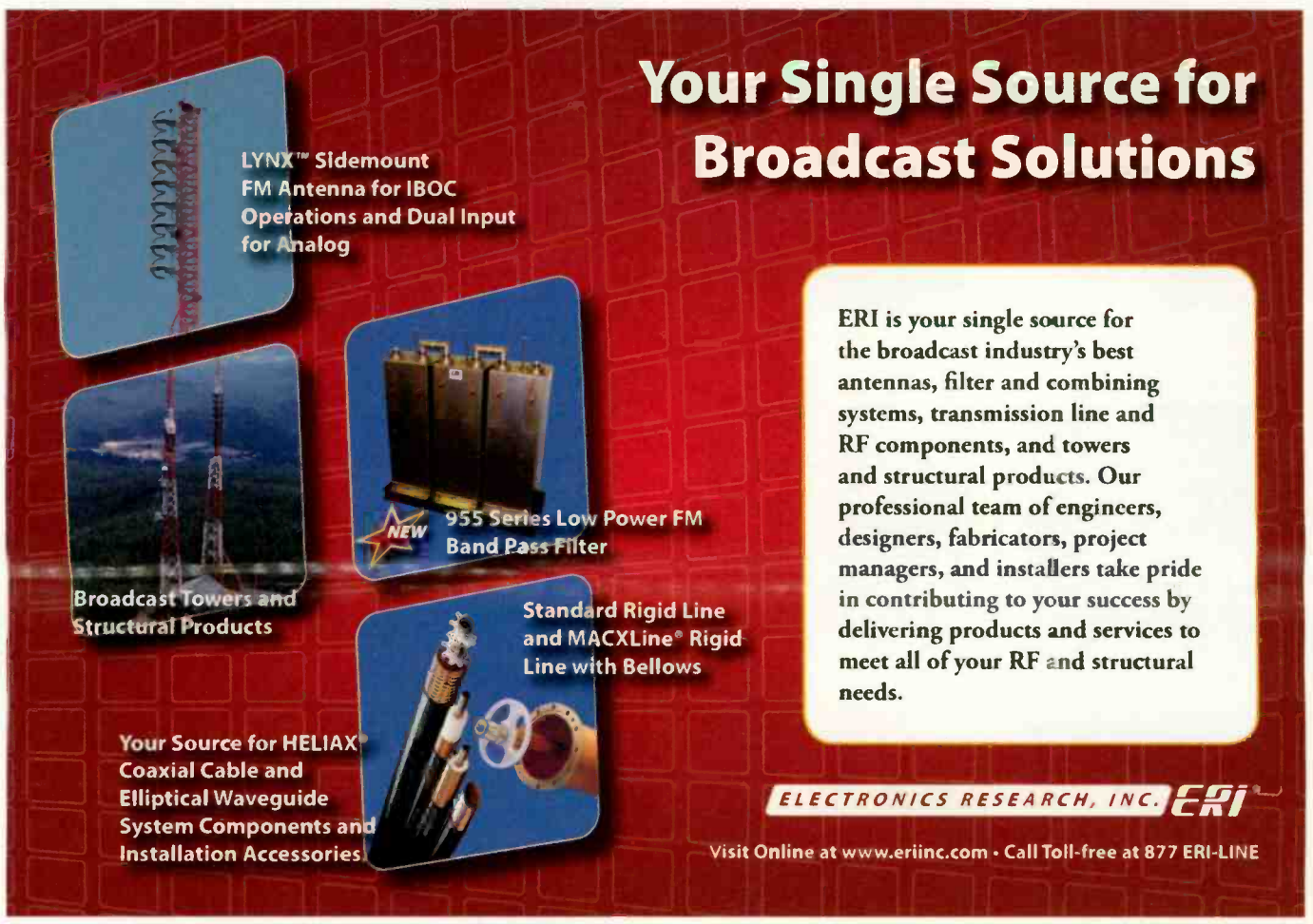
612-470-1848; www.microboards.com
sales@microboards.com

USB audio interface

Edirol

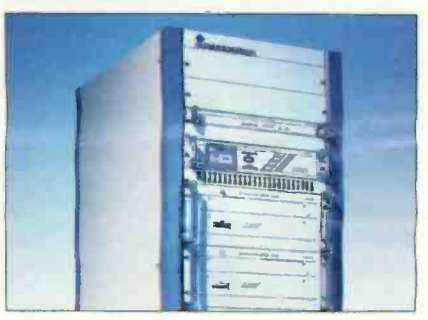
UA-IX: The UA-1X is a USB audio interface that offers component-quality audio signals to and from a computer. The UA-1X offers sound quality input and output from the computer through RCA jacks. The UA-1X also has an S/PDIF optical output to send digital signals to digital destinations and a headphone jack for direct monitoring of your computer audio and input signals. The UA-1X is ideal for use with laptops and for archiving audio on the computer or playing it back through your home stereo.

360-594-4273
www.edirol.com
sales@edirol.com



Compact FM transmitter

Rohde & Schwarz



NR8200: NR8200 FM transmitters are available for transmit powers of 2.5 to 40kW. Two single transmitters with up to 5kW each can be accommodated in a 19" rack. Even the complete 30kW transmitter requires only 2RU. Exciter standby, (n+1) standby, passive standby, and active dual output stage with manual or automatic switchover can be implemented for the R&S NR8200 transmitter family. Transmitters that are already in the network can be easily integrated in a (n+1) redundancy system.

410-910-7800
www.rohde-schwarz.com
info@rsa.rohde-schwarz.com

RBDS encoder

Profline

RDY: This fully digital RDS encoder features full controllable over frontside keypad and display, triple UECP inputs, double pilot inputs and RDS-57Khz output, IP port control, is remote controllable by RDS Database and Managements System or by Load and Control software and operates either as a single encoder or in a UECP or IP network.

+31 26323 6969
www.profline.nl
info@profline.nl

HD Radio monitor
Day Sequerra

M3: The 2RU monitor provides three frequency-agile AM, FM and HD Radio multicast tuners, each equipped with analog and digital balanced outputs, streaming RS-232 PAD data outputs and six programmable dry, floating contact alarm relays-18 relays, total. Each tuner stores 20 AM and 20 FM presets, decodes HD-1 through HD-8 multicast channels and displays signal strength, multipath, HD Radio PAD data and analog RBDS data. Indicators report HD locked, multicast present, delay bit set and tuner alarm. Audio output is uncompromised with an over-sampled D/A converter driving Class-A biased audio outputs. HD Radio stereo separation is better than 90dB, and THD+N is less than 0.005 percent.

856-719-9900; www.daysequerra.com; info@daysequerra.com

Acoustic studio foam
Auralex Acoustics

Studiofoam Smartpak: Auralex Acoustics' Stuciofoam SmartPaks are available in several combinations, including 2" and 4" packages consisting of Studiofoam Wedges or Pyramids as well as a pack of LENRD (Low-End Node Reduction Device) bass traps. The 2" Studiofoam Smartpak totals 48 square feet with 12 wedge or pyramid 2'x2' panels per pack. The 4" Studiofoam Smartpak totals 24 square feet with six 2'x2' panels packaged together, and the LENRD Smartpak includes four bass traps. All Smartpaks are available in charcoal, purple and burgundy. Alternate colors and sizes, such as 1" and 3" products, are available via special order in standard packaging. The Performance Series of Roominator Kits are also available using Smartpak technology, including the Project 2, the Pro Plus and the Deluxe Plus Kits.

317-842-2600; www.auralex.com; auralexinfo@auralex.com

AM conductivity software
V-Soft Communications

AM Conductivity v1.0: Version 1.0 of Conductivity for AM radio will automatically identify the correct ground conductivity curves to be used based on the field strength measurements it is provided along a specific radial. Breaks in the conductivity will be plotted on the radial's graph. The program can handle up to five data sets per each radial allowing comparatives; for example, for an omni-directional measurement to a directional measurement. Once given the measurements, Conductivity can construct the actual pattern the station is radiating. Conductivity is a standalone program, or it can be used in tandem with V-Soft Communications' AM-Pro, which will accept direct file input of the ground conductivity break files.

800-743-3684; www.v-soft.com; info@v-soft.com

Audio interfaces
Central Music Company (CME)

U2GKB, U2midi: The U2 USB Cable Interface Series is a series of USB cables with built-in computer interfaces for plug-and-play connection of line- and mic-level audio sources and MIDI keyboards and controllers. The U2GKB is for line-level sources; the U2MIC is for microphone inputs and features +48v phantom power via USB; and the U2MIDI carries 16 channels of MIDI to and from a computer. With a self-contained preamp and real-time monitoring, the U2GKB is designed for easy connection of an instrument to a computer for recording. It features a built-in audio interface with high quality A/D and D/A converters and is USB 2.0 compliant for fast transmission and low-latency recording. The U2GKB has a 1/4" input and a USB output.

www.cme-pro.com; info@cme-pro.com

On-air console
Klotz Digital

Decennium: As part of a networkable audio routing system, the Decennium standard console is supplied pre-configured to simplify installation and set up. The console is modular and expandable, and the configuration software allows it to be customized as needed. The Decennium audio engine includes on-bard DSP to provide voice processor, parametric six-band EQ and dynamics on each channel. Each channel strip features a rotary encoder with integrated push button and a 16-character display that can be used for source selection and channel-related parameter settings. The control surface is available in 4-, 8-, 12-, 16-, 20- and 24-fader frames.

678-966-9900; www.klotzdigital.com; sales@klotzdigital.com

Optical converter
Canare

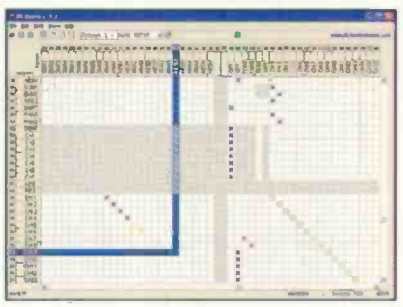
EO-500A, OE-501: The EO-500A is an AES-3ID optical converter TX and the OE-501 is an AES-3ID optical converter RX. Long distance transmission is possible by converting AES signals, eight ports (16 audio channels) into multiple/optical signal. There are eight types of TX by emission wavelength. Therefore, only one optical fiber enables to transmit total 64 ports (128 audio channels) by using wavelength multiplexing. It features asynchronous multiplexing, world clock transmission and is Dolby E signal transmission-capable.

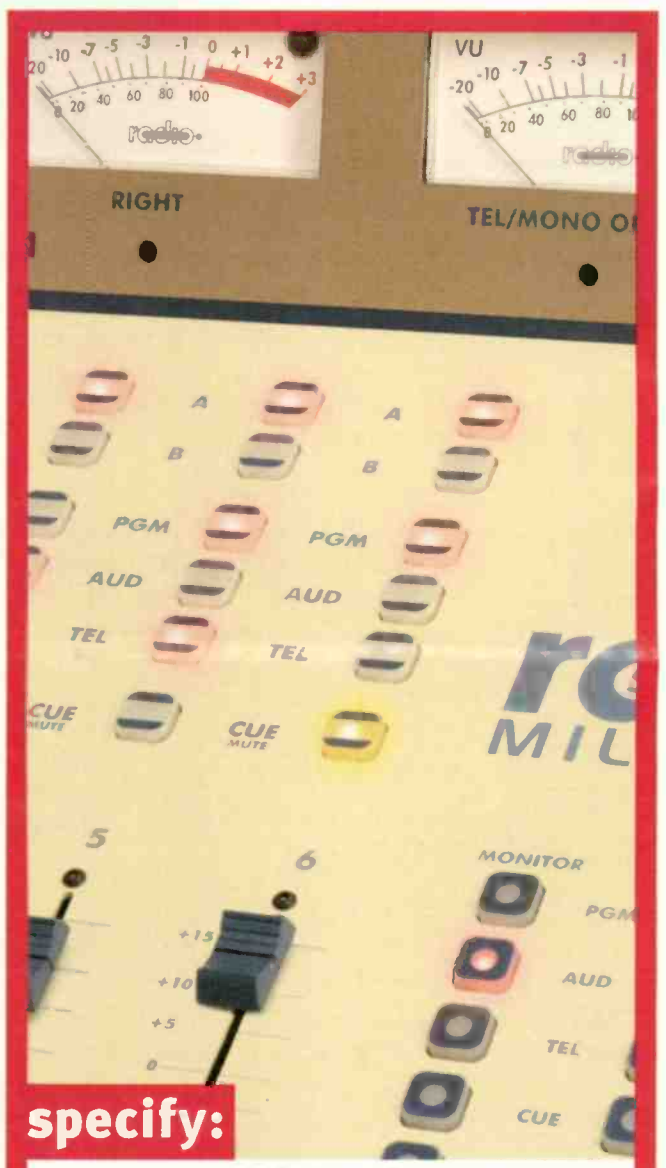
818-365-2446
www.canare.com; info@canare.com

Utility software
DK Technologies

DK-Matrix: DK-Matrix is a PC software package for DK Technologies' MSD600M and PT0660 series of audiometers that allows engineers to set up their meters to suit their needs. Although the audiometers can be configured from the front plate, this new utility software option allows various aspects of the meter to be easily configured from a PC.

+45 4485 0255; www.dk-technologies.com
info@dk-technologies.com





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Millenium Analog Consoles still offer thousands of broadcasters great sounding audio performance.

With solid-state switching, rugged LED-lit keypads and total DC audio control, Millenium Analog Consoles are known for 24-7 reliability. When Analog fits the bill – the best value is Radio Systems Millenium Consoles.

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radio SYSTEMS

Analog and Digital Broadcast Consoles

Radio Systems, Inc. • 601 Heron Drive • Logan Township, NJ 08085
Phone: 856-467-8000 • Fax: 856-467-3044 • www.radiosystems.com

PRODUCT SOURCE

Portable mixer ranges
Soundcraft USA

FX16ii, EFX and MFX: An extension of its multipurpose mixer range, Soundcraft added three new FX models: the FX16ii, EFX and MFX, each featuring no less than 32 Lexicon 24-bit digital effects. The new models use the same AudioDNA processor found in many Lexicon and DigiTech outboard products, including the Lexicon MX500. The FX16ii is useful for on-location audio with 26 inputs, 16 direct outputs, four stereo returns and rotating connector pod, which allows cables to be connected behind the rack. Representing the smallest console in the Soundcraft multipurpose range, the EFX offers a professional solution in a smaller frame size, available in eight- and 12-channel versions.

818-920-3212; www.soundcraft.com; soundcraft-usa@harman.com

IP controller
Fox Electronics

GPI-100: The GPI-100 is a point-to-point and point-to-multipoint system to transport 12 relay/GPI commands over IP, providing as many as 12 independent switches for equipment at one or more remote site or from a remote back to a primary location. Multiple transmitters and receivers can be interconnected for applications requiring the transport of more than 12 relay/GPI commands or for transport to multiple sites. The GPI-100 configures automatically once connected to the network. Special system application software and updates are downloadable from the company's website. Features include: transmits refresh packets every second, automatic reboot and refresh with loss of IP link and time stamp.

800-604-0301; www.foxelectronics.net; info@foxelectronics.net

LED flashing red obstruction light
Farlight

L-864: This LED luminaire was designed to replace incandescent beacon used for obstruction lighting of radio towers. It features 72 Luxeon Star LEDs, has a 45W power consumption, 120/240Vac power source, 2,000 candela peak intensity and can last an estimated 70,000-plus hours. The L-864 is complaint to FAA Advisory Circular 150/5345-43E, FAA Engineering Brief 67, ICAO Annex 14 (Medium Intensity Obstacle Light) and Transport Canada.

310-830-0181
moreinfo@farlight.com

Studio monitors
KRK Systems

VXT Series: The VXT Series includes new proprietary woofers and tweeters, a newly designed curved face plate for excellent imaging, a new cabinet design that provides low resonance, improved structural integrity and extended low-end and slotted ports that greatly reduce port turbulence. KRK engineers started with the functional cabinet design of the flagship monitor, the Expos, E8B to create a very high performance. The use of ABS structural foam as the cabinet material provides excellent damping characteristics and extended low end due to more internal volume. The ABS foam also absorbs shocks so the cabinet is impact resistant. The tweeter's dome is comprised of true silk, as opposed to cloth, which translates to fast transient response, excellent imaging and extended frequency response.

954-316-1500; krksys.com; service@krksys.com

Audio receivers
International Datacasting

SFX: The SFX Pro Audio receivers with integrated Datacast XD offer live IP audio decoding plus the ability for time-shift audio file playout for advanced radio networks. The upgraded dual-channel SFX Pro Audio now features MPEG-4 AAC decoding as well as Livewire, which allows the receiver to convey low-delay and high-reliability audio over switched Ethernet.

613-596-4120; www.datacast.com

Mixing console
Broadcast Tools

Pro Mix 12: The ProMix 12 comes in a small package, but it is loaded with useful features including a mix-minus output, an announce booth output with full duplex talkback, a monaural output, selectable metering and remote starts on all line level stereo input channels. The mixer features 12 input channels including three microphone and nine stereo line sources; stereo program and audition buses, a cue bus, plus built-in mix-minus and mono outputs; and a comprehensive monitor system including an air input and user-programmable muting.

877-250-5575; www.broadcasttools.com; bti@broadcasttools.com

Mic for female voice
AKG

Elle C: Custom-designed for female performers, AKG produced the Elle C live performance vocal microphone. The Elle C features an XLR connector module with 24-carat gold plated pins for optimized connectivity, as well as resistance to corrosion and humidity. Additionally, the mic features a spring steel wire-mesh grill for extreme ruggedness offering reliable control of pops and wind noise. The Elle C features a frequency range of 60 to 20,000Hz.

818-920-3212; www.akgusa.com
akgusa@harman.com

Surround microphone
Soundfield Research

ST350: This lightweight multi-capsule microphone and compact mic-pre/control unit generates surround and stereo simultaneously at balanced line levels. The microphone electronics are capable of driving long cable runs. Control features include high-performance mic preamps with discretely switched 6dB gain steps and composite five-segment LED bargraph for level monitoring. Continuously variable control is offered over the stereo polar patterns from omni to figure-eight with a width control providing mono to wide image stereo. A high-pass filter, switchable M/S output and headphone monitoring are included.

+44 1924 201 089; www.soundfield.com; sales@soundfield.com

5.1 surround conversion
Fraunhofer Institut

SX Pro: This technology creates 5.1 surround sound from existing stereo content. SX Pro analyzes the audio signal and identifies characteristic sound elements. An intelligent algorithm redistributes these elements to create a natural surround sound listening experience without adding artificial reverberation. The center channel is smoothly integrated without altering the original stereo sound stage. The surround channels consist of the ambience-like sound components of the stereo material.

+49 0 9131 776 340; www.iis.fhg.de

MUSIC LIBRARIES

The music sets the mood

Royalty-free music
Sound Ideas

Music, Sound Effects, Production Elements: Sound Ideas released nine new royalty-free music CDs at NAB2007. The music ranges from wacky comedy music to extreme rock music. The company will also release five new sound effects CDs: Ultimate SFX Collection on Hard Drive, Monsters and Creatures, Ambience IV - Series 14,000, Sci-fi DVD Combo and Extreme Impact DVD Combo. Production Elements Toolkit Vol 3 has new production elements including Dark Ambiences and Elements, Static Swipes, Sweepers, Impact Sweeps and Elements and Transitional Elements.

800-387-3030; www.sound-ideas.com; info@sound-ideas.com

Music library
Unique Tracks

High Impact Sound FX Series: Unique Tracks' High-Impact Sound FX Series collection includes 1,350 effects organized into four volumes. Volume 1, High-Impact Radio, contains 365 sound effects designed to boost a radio station's promos, sweepers and station IDs. Volume 2 is High-Impact Television. Volume 3 is High-Impact Multimedia for Powerpoint, Flash and Web creators. Volume 4 is High-Impact Game Design.

888-400-2149; www.uniquetracks.com

Sound effects downloads
Music 2 Hues

MUSIC 2 HUES
Production Music Library

X Series: The X Series sound effects have been added to Music 2 Hues' download center. The center offers 200 production element electronic FX. These categories can be downloaded entirely for one price. The download center also provides all the music from Music 2 Hues' Flagship Series CDs for immediate download. More than 1,000 music tracks and 500 sound effects are offered in the download center.

888-821-7515; www.music2hues.com; info@music2hues.com

sample CDs
Loopmasters

ARTIST SERIES

Artist Series: The collections will be produced for a variety of dance genres including house, techno, downbeat, electro, breaks, drum and bass and electronica. Each collection will include Acidised Wav Files, Rex2 Loops and Apple Loops. There will be patches for Halion, Kontakt, Reason NNXT, EXS24, SFZ and Stylus RMX compatibility.

+44 845 094 1460
www.loopmasters.com
info@loopmasters.com

Imaging elements
Noisefuel

High Impact: More than 300 high impact sounds including clangs, rumbles, smacks, thuds, stabs, explosive hits, fast attacks, lasers, flashes and more. CD-Rom includes WAVs and MP3s.

866-252-7788
www.noisefuel.com

Music libraries
Firstcom Music

Chappell, EVO and Gotham: Firstcom.com offers a new line-up of music including rowdy electronic rock from Chappell, a quintessential underscores collection from EVO and Gotham reigns extreme with classic fanfare for action sports and segues into the political season with positively scandalous themes. Set a remote to Firstcom.com and listen to the 20 new releases.

800-858-8880; www.firstcom.com
info@firstcom.com

Music library
Westar Music

Star Trax: Star Trax contains broadcast-length tracks (60s, 30s and stingers) from the Westar Music Library, plus all of the collection's Tags, Bridges, Production Elements and Segues, published in 16-bit/44.1kHz .BWF format. A complete set of metadata is embedded in the files, ready for use with asset management software. This production music collection is available on 10 DVD ROM discs, and it currently offers more than 5,300 tracks (26.5GB) of professional music and transitions.

866-463-0100
www.westarmusic.com
info@westarmusic.com

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Web: http://www.acousticsfirst.com

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www.inovon.com

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TEL: (831) 458-0552 • FAX: (831) 458-0554
www.inovon.com • e-mail: info@inovon.com

A/D & D/A converters
Lavry Engineering

Lavry Black series: As a complement to the DA 10 digital-to-analog converter, the AD 10 embodies Lavry's design philosophy of transparency in conversion. Like the DA 10, the AD 10 offers ultra-stable clocking, low THD+N and wide dynamic range. The AD 10 has -10dBV TRS and +4dBu XLR inputs, and clocks externally from 32kHz to 100kHz. Both units operate at fixed sample rates of 44.1kHz, 48kHz, 88.2kHz and 96kHz; the AD 10 on internal crystal, and the DA 10 in crystal mode to virtually eliminate the audible effects of source jitter. The DA 10 also accepts inputs from 32kHz to 200kHz in wide mode. With a discrete headphone amp and digitally controlled analog volume adjustment, the DA 10 offers a straight-wire approach for monitoring digital sources without an external preamp.

360-598-9757; www.lavryengineering.com
sales@lavryengineering.com

Mid-size PA speakers
D.A.S. Audio

Reference Series: Consisting of six two-way systems and three subwoofer systems, the Reference series is very versatile. The systems consist of two 12-inch models, two 15-inch models and two double 15-inch models available with 1- and 1.5-inch compression drivers equipped with titanium diaphragms. Included in the range of externally powered products are two subwoofer systems with a single 18-inch bass-reflex configuration and a high power double 18-inch system for use in applications requiring the extra low-frequency power, such as dance clubs and discos. Each cabinet has 12 M10 rigging points so that they can be easily installed using forged steel eyebolts. The rigging points can also be used with the two-piece wall or ceiling "L" brackets as well as the newly incorporated array frame, which permits a horizontal array of up to three RF-12 or RF 15 models. For mobile use, the 12- and 15-inch cabinets include a standard speaker stand/pole

888-DAS-4-USA
www.dasaudio.com; sales@dasaudio.com

Microphones
Hebden Sound

HS3000 series: The HS3000 series is a highly versatile, detachable and fully interchangeable capsule system. It consists of four microphones with Omni (HS3010), Cardioid (HS3020), Hyper-Cardioid (HS3030) and Sub-Cardioid (HS3040) directivity options available singly or as matched stereo pairs. Each microphone is comprehensively tested in-house and comes with a standard 23mm clip and an anti-vibration mount in a lockable studio case. All four polar pattern options can be built around a single pre-amplifier unit and all capsules give a wide frequency range and low noise figures for the discerning audio professional.

+44 (0)114 201 3687; www.hebdensound.com; info@hebdensound.com

Headphone amp, splitter
Boostaroo.com

Boostaroo: The Boostaroo Model T613 is a portable headphone audio amplifier that doubles the available volume of audio players and separates the audio signal into individual stereo channels to drive three separate sets of headphones or speakers. Depending on the ohm rating of headphones, the Boostaroo will increase the volume of the player by 100 percent with no more than a 0.3 percent harmonic distortion. There is no difference in output or frequency response observed when one headphone is plugged in or when three headphones are plugged in. Signal to noise ratio is measured -95dBa from clipping level into a 33Ω resistance.

800-800-4354
www.boostaroo.com
orders@boostaroo.com

Digital mixer
Zaxcom

Deva Mix-12: This device is a control surface for the embedded digital audio mixer of the Deva IV or Deva V location recorders The mixer provides a three-band shelving EQ with two notch filters and a high-pass filter for each channel, a soft-knee compressor with makeup gain, cross-faded cross points to eliminate clicks or pops, floating point DSP, unlimited routing and Penny and Gilles faders. The mixer includes integrated record and stop buttons for the Deva. Each of the 12 fader strips provides access to bus routing and effects for that channel. An LED input meter is provided on each channel strip to augment the Deva's output metering. Three separate talk back buses can be routed to any combination of outputs and internal mix buses.

973-835-5000; www.zaxcom.com
info@zaxcom.com

NTP clock
Masterclock

CLKNTA12: This external NPT source offers accurate legally traceable time. It synchronizes to network time. The unit features self-correction at power up, once each hour and return of NTP after loss. Wireles networking is available and it uses standard Ethernet wiring. The clock provides an internal crystal and clock chip for continuous operation without NTP. Its synchronous motor design runs off ac power line frequency. Encrypted network messages prevent unauthorized tampering of clock configuration, which is saved to non-volatile memory and survives power losses. A network discovery tool provides automatic discovery of NTP clocks attached to the network without changing the PC's networking configuration.

800-940-2248; www.masterclock.com
info@masterclock.com

Hideaway surface access
Extron

Hideaway HSA 822MS: The HSA 822MS is a motorized, double-sided, vertically lifting enclosure for inconspicuous computer-video interface and connector access. The enclosure installs at an adjustable height below the tabletop, so a surface matching the tabletop can be used for the cover, making the HSA 822MS nearly invisible in the closed position. The enclosure can be raised and lowered using a contact closure remote control or by pressing on the top surface. The motor is quiet and runs smoothly.

800-633-9876; www.extron.com
support@extron.com

Power protection
MGE UPS Systems

Pulsar MX Frame: This UPS frame accommodates MGE's Pulsar MX 5000 RT power and battery modules for a modular and scalable power protection system. When the Pulsar MX online double-conversion power modules are connected in parallel within the Pulsar MX Frame, the power can be scaled from 5kVA to 10-, 15- or 20kVA power levels within the unit's 16RU frame. The same power and battery sub-modules from MGE standalone UPS units can be used in the frame. Units feature hot-swappable battery and power sub-modules, auto battery-test, switched outlets, multilingual LCD display and power management software. For extended backup time, redundant external battery modules can be added.

800-523-0142; www.mgeups.com
info@mgeups.com

Eight-channel monitor

RTW Radio-Technische Werkstatten

Digial Monitor 8CH: This digital 8-channel monitor with multi correlation display (phase meters), two-channel audio vectorscope has relevant functions for monitoring level, correlation and volume of digital multi-channel signals. It has a four-fold correlator, AES/EBU status monitor, stopwatch, and a remote control interface VGA output and digital inputs, especially for monitoring multi-channel audio signals and mix outputs.

+49 221 709130; www.rtw.de

Professional USB Converter

Yellowtec

PUC: PUC is a two-channel self-contained audio interface for use with USB enabled desktop computers or notebooks. The unit is powered through the Universal Serial Bus, so no external power supply is needed. PUC requires no installation of drivers other than those automatically loaded by the host operating system. With the exception of a 1/8-inch headphone jack, audio connections are made via an optional breakout cable, which attaches securely to the PUC via DB25 connector. Electronically balanced analogue audio I/O (0dBFS = +18dBu) is provided through stereo pairs of Neutrik XLRs.

+49 2173 967 336
www.yellowtec.com; info@thummahr.de

Acoustical treatment kits

Media Specialty Resources

Studio Panel SP220, SP 502: Available in six standard colors with an additional 42 optional choices, the new SP220 and SP502 kits come with the same do-it-yourself installation kit included with the higher-priced Studiopanel kits. The point-of-sale package contains all the necessary tools as well as software that allows the end-user to properly place and install each system component for maximum results. The company's innovative larger room kits and various patent-pending acoustic treatment components remain available.The SP502 kit is useful for small- to medium-sized studios. It controls room echo and reflection decay time over a wide range of frequencies. The kit includes five absorber panels and two of the firm's Bazorber panels. The SP220 kit includes two absorber and two diffuser panels.

800-497-2087; www.msr-inc.com; info@msr-inc.com

Dummy loads

Coaxial Dynamics

4000 Series: Coaxial Dynamics' series of low VSWR, High Peak Power terminations run from 5 to 150W with a frequency range to 4GHz. The VSWR is 1.05:1 maximum to 1GHz and 1.10:1 maximum to 4GHz. The Peak Power handling capabilities are from 5 to 25kW with a 1-microsecond pulse width, depending on the model selected. These terminations come with a standard 2-year warranty and detachable N Female connectors. There are 26 different Quick Match connector types for this series including male or female SMA, BNC, LC, TNC, SMA, 7/16 and many others.

800-COAXIAL; www.coaxial.com; sales@coaxial.com

Audio processor

Audemat-Aztec

Silver Audio Processor: The Silver Audio Processor line is a new generation of digital audio processors that can be used to process audio for FM and digital broadcasting such as HD/DAB and Internet streaming. The line uses the latest multi-band DSP technology and includes four- and six-band FM audio processors with dual paths allowing simultaneous processing of FM and digital radio. HD versions, using look-ahead limiters, are also available and dedicated to the process of audio signals that are being fed off into codecs employing bit rate reduction technics. The six-band FM and HD versions include as a standard the Ariane RMS leveller. This AGC corrects input level variations and also improves consistency. The block can provide stereo enhancement with its matrix mode of operation. The Silver Audio Processor line is provided with many factory and users presets for all music styles and applications. The A/B switching enables instant comparison between current settings and the preset ones.

305-249-3110; www.audemat-aztec.com; contact@audemat-aztec.com

Clock

Broadcast Tools

Intelliclock: The IntelliClock provides GPS or NTP referenced master clock. It features 0.56" six-digit red LED displays, a viewing distance up to 20 feet, automatic daylight-saving time, serial time code output in ESE TC89 or TC90 format with active high output driver, DPST relay time sync outputs, selectable 12- and 24-hour format display with LED indicator, and desktop or optional rackmount.

877-250-5575; www.broadcasttools.com; bti@broadcasttools.com

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Door system

Industrial Acoustics

Sound Control Doors: Each door system, complete with leaf, split-frame seals, hinges and latching hardware, is factory assembled and laboratory tested for performance, alignment, fit and ease of operation prior to shipment. All design changes or material substitutions are fully tested in the lab prior to incorporation. Optional finishes include choices from among 62 types of wood veneers along with paint and metal

718-931-8000
www.industrialacoustics.com
info@industrialacoustics.com

2007 PRODUCT SOURCE

Headphone
Alienware

OZMA 7: Alienware's branded headphone, the Ozma 7, comes out of a partnership with German headphone manufacturer Ultrasone AG. The Ozma 7s use Ultrasone's patented S-Logic(tm) natural surround sound technology and electro-magnetic field emission shielding. The headphones feature technology that produces up to a 40 percent lower dB output (3-4dB) for the same loudness sensation, reducing the risk of hearing loss; a 60 percent reduction in electronic magnetic field radiation; 3.5, 6.3mm screw-on gold-plated plug/acapter; and a frequency response of 10Hz to 25kHz.

1-800-ALIENWARE; www.alienware.com

FM Extra radio receiver
Digital Radio Express

Aruba: The FM Extra Radio Receiver Model Aruba features a new design with a wooden cabinet, built-in hi-fi speaker, tuned port for bass enhancement, improved RF reception specifications, connection for external speaker to use in stereo mode, Headphone output, Digital Optical Output, programmable for Conditional Access and a USB connection.

408-956-8707
www.dreinc.com; contact@dreinc.com

Green power devices
Pulizzi Engineering

RoHS-compliant products: Pulizzi Engineering has achieved compliance to the RoHS Directive standards for the restriction of hazardous substances in electronic equipment. This directive bans placing products on the European Union (EU) market if they surpass allowable levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants. The company now produces 26 RoHS-compliant products.

800-870-2248; www.pulizzi.com; sales@pulizzi.com

Multipurpose loudspeakers
TCS Audio

TM Series: The TM series of loudspeakers consists of 12 models: the TM10X, TM10XW, TM112, TM112R, TM112W, TM115, TM115R, TM115W, TM206, TM206W, TM215S, and TM215SW. Available in black with handles or white without handles, all TM Series products are finished with a rugged Duratex exterior and feature a foam-backed, powder-coated, 16-gauge perforated steel grill to protect the transducers. The TM112 and TM115 are available in reversed versions for mirror image applications. All TM Series loudspeakers feature Omnimount compatibility or include multiple 3/8"-16 captive nuts for mounting. Models TM10X, TM112, TM115, and TM215S also include pole cups for use on speaker stands or pole-mount applications. The woofers are neodymium coaxial transducers mounted in a vented enclosure.

800-403-4484; www.tcsaudio.com
info@tcsaudio.com

Data delivery program
Enco Systems

Padapult VS: PADapult was introduced in 2005 as a vehicle to enable broadcasters a means of fully automated or manual delivery of program metadata such as artist and title information as HD Radio Program Service Data, RDS encoders and other information displays. Along with HD Radio's digital audio signal, or Main Audio Program (MAP), there's also a text stream embedded in the carrier wave. This Program Service Data (PSD) consists of metadata and gives land-based stations capabilities similar to satellite radio services. Text scrolls across the front of the receiver's LCD panel. Song and artist information and station ID are standard content, but the PSD can also include traffic and weather updates or other information the station provides—even commercials. Other applications can include traffic, weather and sports updates and provide the advantage of incorporating this information in audio form that does not require the listener to read the information from their radio display.

800-362-6797; www.enco.com; sales@enco.com

Podcasting service
Zilonis-Prestopod

Prestopod: Designed to be an all-in-one offering to help community and independent radio stations reach a wider audience, this service can quickly create a podcast from an existing online radio program. Prestopod creates and hosts the podcasts, lists them in podcast directories, and reports usage statistics.

360-488-0629
www.prestopod.com
info@prestopod.com

Active harmonic filters
Staco Energy Products

Stacosine: Stacosine uses power electronics to monitor a non-linear load and dynamically correct every harmonic order from the 2nd to the 31st. Through an injection and cancellation process, the sine wave is restored and distortion is reduced to less than 5 percent THD, meeting stringent IEEE 519 standards. Stacosine technology moves power from the ac source to its dc electronic platform, then back to the ac source rapidly, to cancel harmonics and equalize the sine wave. Designed to operate at levels that continuously adapt to rapid load fluctuations, models are available for 208 to 480 Vac, three-phase installations with an adaptive system frequency of 45/65Hz, and 120/240Vac control power. Equipment ratings are from 25A to 200A. Wall mount or freestanding NEMA 1 enclosures are standard, with NEMA 12 or 3R enclosures available.

937-253-1191; www.stacoenergy.com; sales@stacoenergy.com

Label printer
K-Sun

Label Shop 2010-PC: K-Sun's LABELShop 2010-PC Printer connects to a laptop or PC with a USB cable and features a very small footprint that fits anywhere on a desk, lab bench or wherever a PC can go. Users can print custom labels with industrial-grade adhesive in 23 different color combinations from 1/6" up to a full 1-inch wide. Special shrink tube labeling material can also be used in the printer for wire, cable, medical instruments or personal item identification.

800-622-6312; www.ksun.com; info@ksun.com

Cables
Belden

Waterdog: The Belden line of New Generation Waterdog Cables includes paired, multi-conductor and coaxial cables that meet the water-resistant standards set by UL 444, UL 13, and the TIA 455-82B Water Filtration Test. The ruggedly constructed cables can be installed indoors or out, above or below ground, making it practical for building management systems to be connected seamlessly - from building to building or, for example, from remote surveillance camera sites to indoor security monitors. The user-friendly Waterdog cables are also ideal for deployment in standard indoor/outdoor building management installations.

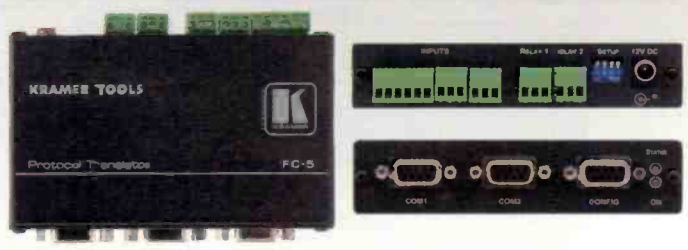
800-BELDEN1; www.belden.com; info@belden.com

EAS station multiplexer
DM Engineering

Multi Station Relay Adapter: The Multi Station Relay Adapter (MSRA & MSRA-RM) expands the allowable controlled number of stations from a single Endec to a total of four. It is a microprocessor-based, three-stereo-channel accessory for the Sage-Endec EAS encoder-decoder. All digital commands and EAS audio is supplied by the Endec, and the MSRA interprets these commands to select the appropriate station or stations for EAS broadcast. The MSRA digital communication with the Endec is via RS232 and the EAS audio for the MSRA is derived from the speaker line output connection of the Endec. A multi-turn, recessed front panel input gain trim potentiometer and individual multi-turn station gain controls are provided for controlling the active stereo distribution amplifier sections having balanced output levels capable of of greater than +12dBm into a 600 ohm load impedance.

800-249-0487; www.dmengineering.com; info@dmengineering.com

Protocol translator, controller
Kramer Electronics



FC-5: The FC-5 is a protocol translator designed to make an RS-232-controlled machine compatible with other RS-232-based protocols. Because the FC-5 will work with any RS-232 controllable product and can convert RS-232 commands to contact closure and relay control signals, it will also make system integration of various components such as screens and drapes easier. The translator comes pre-configured with two serial translation tables, a generic serial switcher control protocol to Kramer's Protocol 2000 and the Sierra Video Systems' serial protocol to Kramer's Protocol 2000. The FC-5 can be programmed to work with up to four translation tables, each with up to 256 commands.

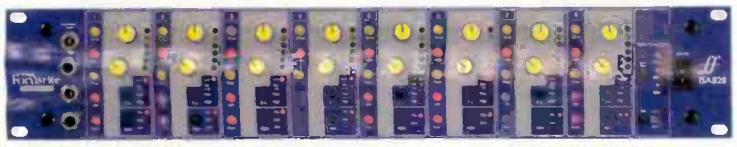
888-275-6311; www.kramerelectronics.com
info@kramerelectronics.com

PAD interface software
Modulation Index

PAD Bridge: Interfacing automation systems and databases to RBDS and digital radio data encoders is a challenge for many stations, and this software provides a bridge between those systems. It can be used to display dynamic program information via RBDS, HD Radio PAD MPS/SPS, Internet streaming players and large-format display signs. One instance of PAD Bridge is used for each program source, and is configured to send data to several different devices or computers. As many as eight instances of PAD Bridge may run on a single computer. PAD Bridge 1.0 runs entirely on the user network without any external server requirements or subscriptions. The software has a one-time license fee per source. The software will parse information directly from most automation systems.

909-860-6760; www.indexcom.com; info@indexcom.com

Microphone preamp
Focusrite Audio Engineering



ISA 828: The ISA 828 eight channel microphone pre-amplifier features eight original ISA transformer-based pre-amps in a single 2U chassis. The pre-amps feature the same vintage microphone pre-amplifier design as the original ISA 110 module from Focusrite's Forte console. The ISA 828 has eight line inputs, four instrument inputs and an optional eight channel 192kHz ADC. The microphone input stage includes a variable impedance circuit, allowing the user to switch between four carefully selected input impedance settings.

516-249-1399; www.focusrite.com

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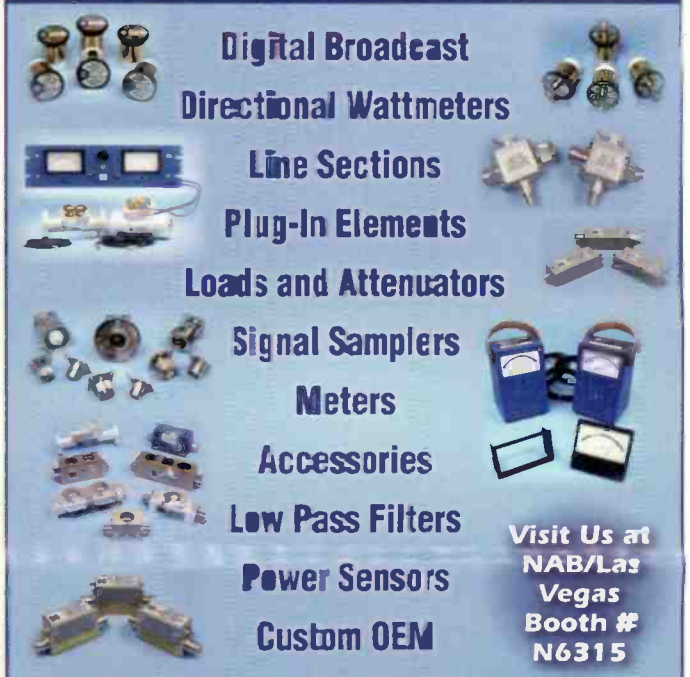

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AEQ

Arena: This console can monitor all the signals present in the system, as well use the configuration presets in relation to the Swap Page. The dedicated controls for dynamic, EQ, routing and select located above the faders have dual function. In the other mode of operation, these controls turn into send buttons that route the signals to buses, such as master 1, master 2, aux 1 and aux 2. The user may request the on and off controls on top or below the faders. To facilitate easy maintenance, each console offers changeable modules.

800-728-0536
www.aeqbroadcast.com
sales@aeqbroadcast.com

Stereo condenser microphone
Marshall Electronics

MXL 990 USB: The MXL 990 USB stereo condenser microphone features two gold diaphragm capsules in an X/Y stereo configuration. The MXL 990 connects directly to a computer without the need for external mic preamps. The microphone features twin gold sputtered capsules (20 mm each) and this pressure-gradient stereo condenser microphone features a 20Hz to 20kHz frequency response. The digital section of the microphone features a 16-bit Delta Sigma A/D converter with sampling rates of 44.1kHz and 48kHz.

800-800-6608; www.mxlmics.com; sales@mxlmics.com

Multimedia work environment
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Soho: The Soho signature series is built with Masterail technology. It offers cable power and management, side cars (rack mount or drawer), additional monitor arms and toolbars, additional speak pods, equipment turrets and a console equipment wedge.

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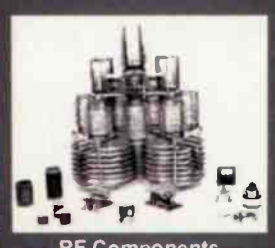

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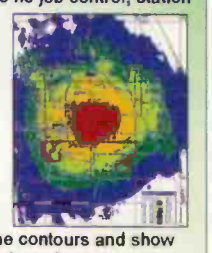

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20 KW	1985	Harris FM20K
20 KW	1989	QEI FMQ 20,0000B
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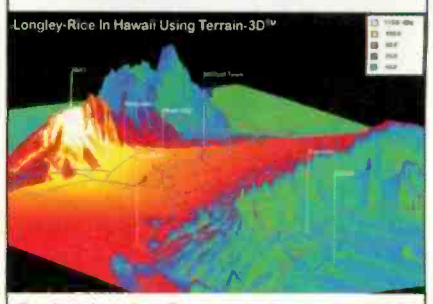

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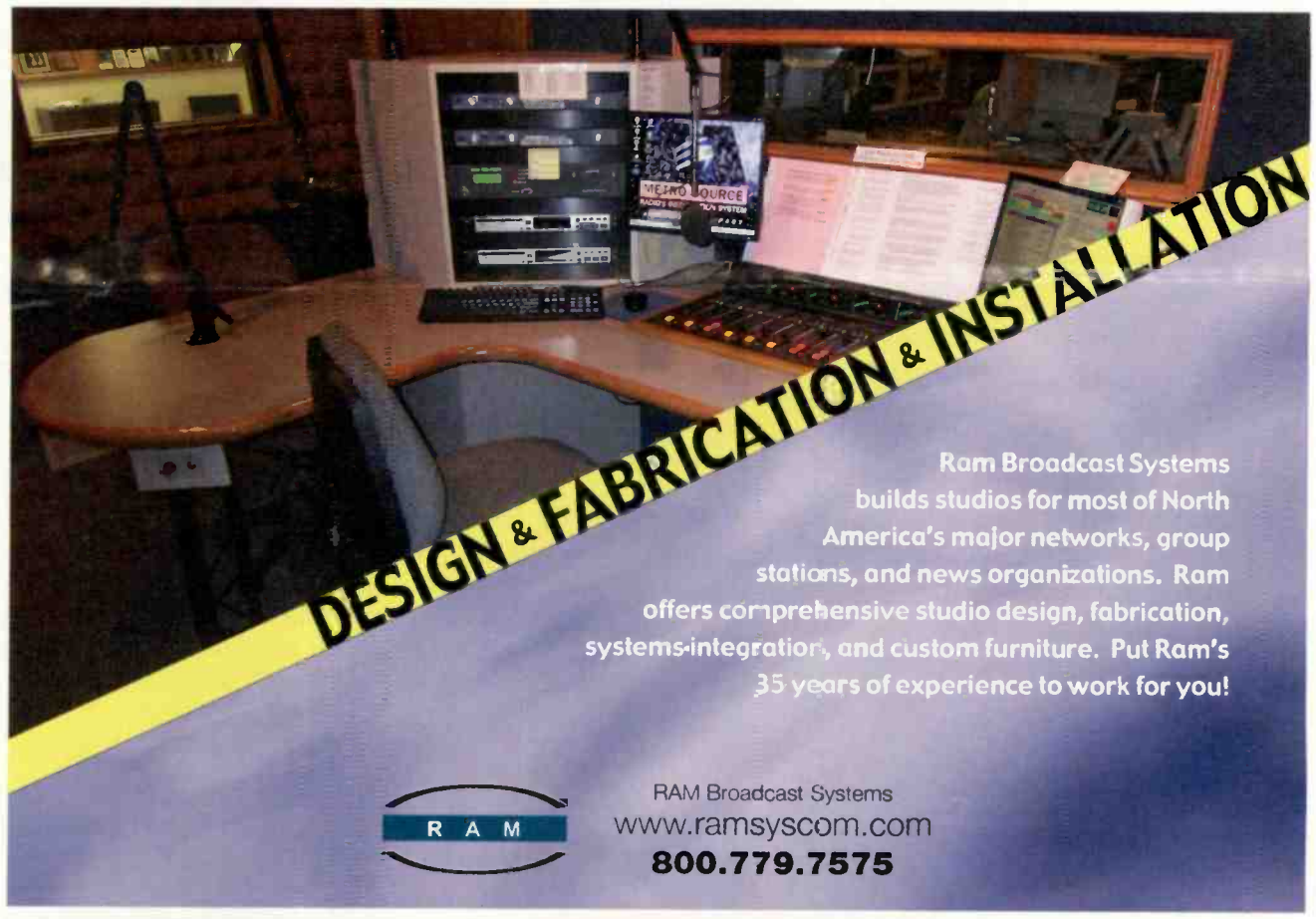

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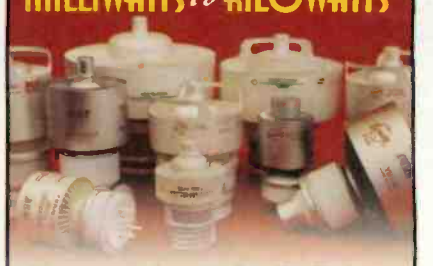

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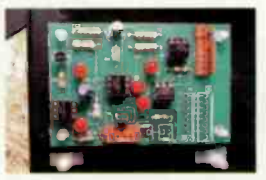

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With real-time spectrum density readouts and full metering, our included PC graphic interface software makes operation of the AP-3 direct and easy, offering complete control of all audio parameters, presets, monitor functions, system settings and security—all through a single RJ-45 ethernet connection that lets you control one or many AP-3 units.

TAILOR THAT SOUND

VORSIS®

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THE TOOLS HAVE CHANGED...

BUT THE *MISSION* REMAINS THE SAME

Today's audio control surface has evolved to a very high degree. Yesterday's wish list is today's feature set: total router integration, routable audio and logic, total show recall, and a complete set of DSP audio processing are under the hood of this G7...

All in a package of stainless steel and aluminum designed for years of 24/7 service, with a familiar look and feel that will ***help your talent make years of great radio.***

Networked audio requires a higher level of expertise, experience and resources. Benefit from all three with *WHEATSTONE!*

WE MAKE THE GOOD STUFF Wheatstone

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